



Financial Futures of the Islamic State of Iraq and the Levant

Findings from a RAND Corporation Workshop

Colin P. Clarke, Kimberly Jackson, Patrick B. Johnston, Eric Robinson,
Howard J. Shatz



For more information on this publication, visit www.rand.org/t/CF361

Library of Congress Cataloging-in-Publication Data is available for this publication.

ISBN: 978-0-8330-9739-2

Published by the RAND Corporation, Santa Monica, Calif.

© Copyright 2017 RAND Corporation

RAND® is a registered trademark.

Cover: images adapted from Reuters and Fotolia.

Limited Print and Electronic Distribution Rights

This document and trademark(s) contained herein are protected by law. This representation of RAND intellectual property is provided for noncommercial use only. Unauthorized posting of this publication online is prohibited. Permission is given to duplicate this document for personal use only, as long as it is unaltered and complete. Permission is required from RAND to reproduce, or reuse in another form, any of its research documents for commercial use. For information on reprint and linking permissions, please visit www.rand.org/pubs/permissions.

The RAND Corporation is a research organization that develops solutions to public policy challenges to help make communities throughout the world safer and more secure, healthier and more prosperous. RAND is nonprofit, nonpartisan, and committed to the public interest.

RAND's publications do not necessarily reflect the opinions of its research clients and sponsors.

Support RAND

Make a tax-deductible charitable contribution at
www.rand.org/giving/contribute

www.rand.org

Preface

The Islamic State of Iraq and the Levant (ISIL) has been described as the wealthiest terrorist group in history. From seizing control of banks to extortion to trafficking oil and oil-related products, ISIL has developed diversified revenue streams. This report describes the likely evolution of ISIL finances under three specific scenarios that provide a range of conditions. These include (1) a continuation of the current campaign, (2) a negotiated settlement in Syria and political accommodation in Iraq, and (3) total territory loss through combat without a negotiated settlement or political accommodation. Conclusions stem from a workshop held at the RAND Corporation's Arlington office in June 2016. Attendees included RAND and non-RAND employees, all of whom were included for their expertise in an area related to ISIL or Iraq.

This project was sponsored by an interagency group within the U.S. government and conducted within the Intelligence Policy Center of the RAND National Defense Research Institute, a federally funded research and development center sponsored by the Office of the Secretary of Defense, the Joint Staff, the Unified Combatant Commands, the Navy, the Marine Corps, the defense agencies, and the defense Intelligence Community.

For more information on the Intelligence Policy Center, see www.rand.org/nsrd/ndri/centers/intel or contact the center's director (contact information is provided on the web page).

Contents

Preface	iii
Figure	vii
Summary	ix
Acknowledgments	xiii
Abbreviations	xv
 CHAPTER ONE	
Introduction	1
Scenario One: Status Quo	2
Scenario Two: Negotiated Settlement	3
Scenario Three: Total Territory Loss Through Combat	4
Structure of the Workshop	4
 CHAPTER TWO	
ISIL's Finances	7
How ISIL Makes Its Money	8
How Much Money Does ISIL Make?	9
How ISIL Spends Its Money	10
Will ISIL Be Able to Weather the Financial Storm?	13
 CHAPTER THREE	
Major Themes in ISIL's Financial Futures	15
Areas of Agreement Across Scenarios	15
Areas of Disagreement	17
 CHAPTER FOUR	
Implications for the Counter-ISIL Effort	19
 APPENDIXES	
A. Detailed Description of Points Raised in Each Scenario	21
B. Current State of ISIL's Finances	27
Bibliography	35

Figure

1. ISIL’s Territorial Losses Between January 2015 and July 2016 1

Summary

The Islamic State of Iraq and the Levant (ISIL) has been described as the wealthiest terrorist group in history. From seizing control of banks to extortion to trafficking oil and oil-related products, ISIL has diversified its revenue streams to amass a significant war chest, which it uses to fund its organization. Policy options to combat ISIL include efforts to cut off the group's revenues. Further, the ways in which ISIL generates and spends money can reflect changes in its strengths, weaknesses, and strategy. Therefore, understanding how ISIL's financial activities affect and are affected by internal and external factors is critical to developing a full analytic picture of ISIL—and ultimately to countering it.

Although international coalition efforts have indeed decreased ISIL's revenues, the group is continuing to generate income and conduct attacks. Given the group's resilience, and the global effort against it, considering ISIL's financial trajectory under a variety of conditions is a worthwhile endeavor. Accordingly, the RAND Corporation conducted a short-term study to explore the future of ISIL's finances. To that end, RAND held a small workshop at its Arlington office in June 2016. The participants were eight professionals with expertise in the Middle East, ISIL, counterterrorism, and economics. Participants' identities and comments in these proceedings are kept anonymous. RAND followed human subjects protections in the workshop and in this report in accordance with U.S. federal policy and Department of Defense regulations governing human subjects protections. Participants' comments are based on their professional experiences and do not represent the policies and positions of their agencies, the U.S. Department of Defense, or the U.S. Government.

Using a set of three scenarios constructed by the project team, workshop participants determined how each scenario would influence ISIL's revenues and expenditures. The workshop did not model the behavior of Jabhat al-Nusra (now Jabhat Fatah al-Sham) or other insurgent groups under the three scenarios.

To examine how ISIL finances might evolve, the RAND team asked the workshop participants to analyze each scenario's effect on ISIL's finances at six, 12, and 18 months from the start of each scenario. Discussion of these three scenarios—(1) status quo, (2) a negotiated settlement in Syria and political accommodation in Iraq, and (3) ISIL's total loss of territory through combat means in Syria and Iraq—served as the basis for the workshop discussion and this report's analytical findings.

This report remained faithful to the workshop findings: The authors have not infused their own analysis into the document beyond points of clarification. In addition, an earlier version of the report was sent to all workshop participants for their comments to ensure the report accurately reflects what transpired within the workshop itself.

The Scenarios

Workshop participants considered three scenarios. The first scenario presented the status quo, in which all current counter-ISIL actions continue into the future without any major changes to the military campaign or the actions of the Iraqi and Syrian governments. Specifically, ISIL remains under pressure in areas of both Syria and Iraq, but maintains its capital in Raqqa as well as control of significant swaths of territory, including Mosul and areas to its south. It also maintains the ability to conduct terrorist attacks throughout the region.

The second scenario presented a negotiated settlement in Syria and reconciliation in Iraq. Bashar al-Assad is removed from power and replaced by a new ruler. A successful multilateral agreement includes a cease-fire among all parties involved, with the exception of ISIL and Jabhat al-Nusra (rebranded Jabhat Fatah al-Sham in July 2016). Even with a cease-fire in place, ISIL will continue to control pockets of territory throughout central and eastern Syria but will be far more isolated than before the settlement. As part of the reconciliation in Iraq, Kurdish parties and what is left of the Sunni political establishment agree to cooperate with the central government, which, in turn, is more solicitous of their demands.

The third scenario presents a strictly military solution. Through combat operations, ISIL is expelled from Mosul and Raqqa. Assad remains in power in Syria; the Iraqi government remains fractured and ineffective, but the Kurdistan Region is still part of Iraq. Some ISIL elements may remain scattered throughout Syria and Iraq. Although they will not control territory, they will remain capable of conducting terrorist attacks.

Given time and resource constraints, the authors chose to focus on these three scenarios. The scenarios were arrived at in consultation with U.S. government officials and were designed to be analytically distinct. Any campaign against ISIL likely will involve elements of all three scenarios, but separating them allowed for a more focused discussion of the implications of each. Focusing on three scenarios allowed the participants to cover both the breadth and depth necessary to tease out important nuances without getting bogged down in small details. All scenarios assumed growing military pressure on ISIL, given agreement between RAND and U.S. government officials that this was the most likely trajectory of the conflict.

Major Points of Agreement and Disagreement

One benefit of the workshop format was our ability to identify points of agreement and disagreement among the subject-matter experts. The main points of agreement suggest how ISIL will evolve financially, regardless of the actions of the counter-ISIL coalition. The main points of disagreement highlight the uncertainties regarding ISIL's financial evolution, which could serve as collection priorities to gain visibility into how ISIL will evolve.

Several areas of agreement between subject matter experts emerged in the workshop. First, ISIL is a highly adaptable and resilient organization, and its revenues from extortion and taxation will likely persist even in the absence of territorial control. Second, due in large part to the group's ability to adapt under pressure, ISIL will persist as a terrorist organization over the course of any timeframe relevant to planning. Third, a military victory against ISIL that does not also address the underlying political factors behind the group's rise will be only a temporary victory, as the group's remnants will attempt to reconstitute (perhaps under a new name), or an alternative group will move or form to take its place. Finally, the longer a military

stalemate continues between ISIL and coalition forces, the better off ISIL will be, as it becomes further entrenched as a political entity in parts of Iraq and Syria.

Participants also disagreed on several issues, including whether ISIL might seek external state sponsorship if it continues to face financial strain; the extent to which ISIL affiliates would remain connected to the core financially in the event of combat defeat or a political settlement; whether the group would attempt to construct a closed economy or shift more of its resources towards governance in any territory that remains; and how quickly ISIL's brand would falter after military or political defeat.

Implications for Counter-ISIL Actions

The discussion of potential consequences for ISIL across these three contrasting scenarios offered a number of implications for the counter-ISIL effort. These included taking actions to counter specific means of raising money within ISIL territory, using financial information to damage the group, degrading its ability to raise money across its territory, and ensuring that it does not shift to raising money from beyond its territory.

To cripple the group's main sources of wealth, it will remain necessary to continue pressure on ISIL's oil operations and its bulk-cash sites inside Iraq and Syria through airstrikes and raids.

Beyond oil, in the short term, the absence of opposition forces capable of reclaiming and holding all of ISIL's territory means that the group will continue to control important economic resources, including portions of Iraq and Syria's agricultural, manufacturing, and financial sectors. ISIL will continue to compensate for losses in certain revenue streams by increasing revenue generation in other areas, such as from the economic resources it may control. Those resources should be considered for targeting or sanctioning.

ISIL supply chains for the trade of goods and services with non-ISIL elements, any intermediaries that facilitate that trade, and end purchasers who know they are dealing with ISIL should also be identified and considered for sanctioning and targeting. Consideration of any necessary new authorities should begin early.

If the coalition can degrade ISIL finances to the point where the group struggles to pay salaries, this may rupture internal cohesion between fighters and senior leadership and may hamper recruitment. Prior analysis of declassified documents from ISIL's predecessor group, the Islamic State of Iraq, suggests that ISIL is also concerned about embezzlement of funds by its own fighters. Highlighting these financial failures through effective messaging could only worsen public perceptions of the group's solvency and trustworthiness, especially among members, prospective members, or sympathizers. Declassifying more-recent captured ISIL documents citing any signs of financial strain would further reinforce this message and aid coordination among the countries of the international counter-ISIL coalition.

Beyond specific sectors and activities, such as oil or trade, it is crucial for coalition forces to break ISIL control over the economy and separate ISIL from the population from which it profits.

As territory is reclaimed from ISIL, much of the counter-ISIL finance mission will need to rely upon law enforcement tools rather than strictly military ones to address ISIL's persistent extortion and taxation revenues. This is because even after it has lost territorial control, ISIL will still maintain access to territories and their associated revenues, as its predecessor al-Qa'ida

in Iraq (AQI) did when it was a clandestine group involved in a number of extortion rackets and other fundraising activities that kept the group functioning. This suggests a need to invest more resources in training Iraqi and other law enforcement entities, beyond advising, assisting, training, and equipping their military efforts.

ISIL has avoided relying on external actors for financing, but this trend may not continue indefinitely. Traditional counterterrorism financing tools must continue to keep the group isolated from deep-pocket donors. The coalition should continue to monitor financial flows into ISIL-held territory to see if changes to financing occur, particularly from countries where wealthy individuals have historically funded jihadist causes. Over a decade of war against al-Qa'ida has afforded the U.S. Treasury Department and other U.S. agencies valuable experience in identifying and countering terrorist funds that are connected to the licit financial sector.

Regardless of the next steps in the war against ISIL, whether a continuation of the status quo, a negotiated settlement in Syria and political accommodation in Iraq, or combat victory over ISIL in both Iraq and Syria, addressing the core grievances and underlying structural factors that led to the rise of ISIL must be an important component of the comprehensive coalition response. This line of effort is fundamentally based upon diplomacy, both in terms of working toward a negotiated settlement in Syria and exercising influence over the Iraqi government to make a more earnest attempt at ending the sectarianism that characterizes Iraqi politics. Military victory alone will not achieve this. Without steps toward political reconciliation in each country, ISIL will continue to operate among and raise revenues from local Sunni populations even in the absence of territorial control.

Acknowledgments

The authors thank the Counter-ISIL Finance Futures Workshop participants for their participation and candid contributions and Leah Hershey of RAND for her administrative support. We also thank government officials involved in the counter-ISIL finance effort for productive discussions and for supporting this work, and our two reviewers, Jeffrey Martini and Phil Williams, for their thoughtful comments, which improved the manuscript significantly. All errors are the responsibilities of the authors.

Abbreviations

AQI	al-Qa’ida in Iraq
CIFG	Counter–ISIL Finance Group
CJTF-OIR	Combined Joint Task Force – Operation Inherent Resolve
FATF	Financial Action Task Force
ISIL	Islamic State of Iraq and the Levant
KFR	kidnapping for ransom
PMU	Popular Mobilization Units
WMD	weapons of mass destruction

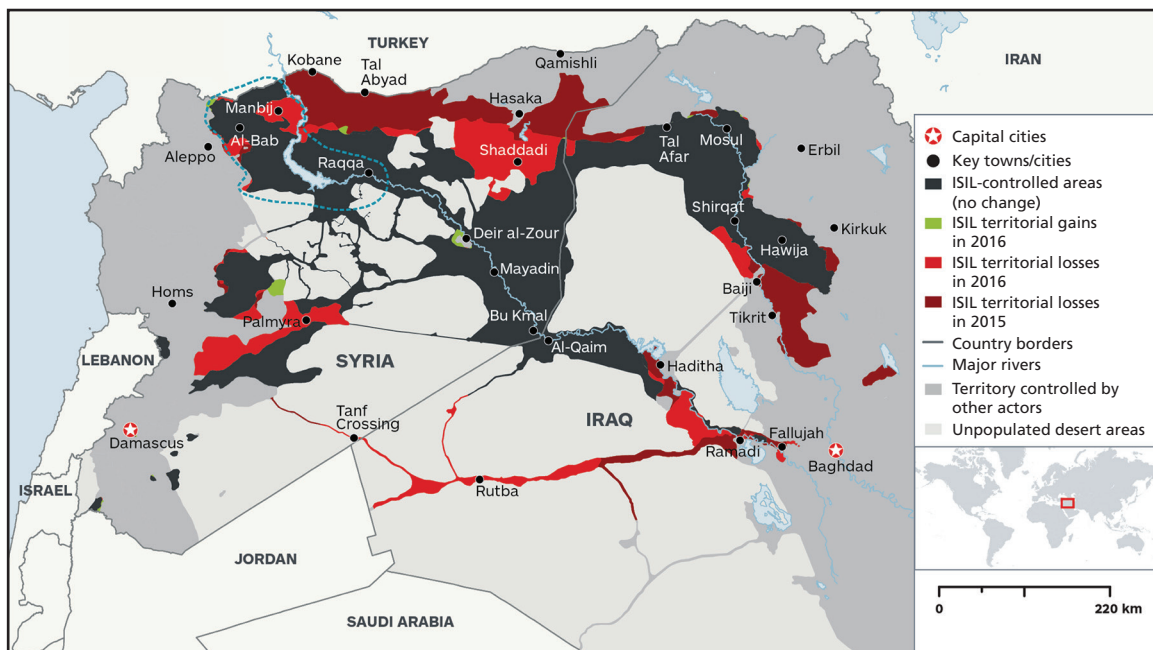
Introduction

Countering the finances of the Islamic State of Iraq and the Levant (ISIL) is a major line of effort among U.S. and international actions to degrade and destroy the group. The group has taken over large swaths of Iraq and Syria, established affiliates, sown terror around the world, enslaved people, killed thousands, and helped destabilize the Middle East and North Africa.

Internationally, the Counter-ISIL Finance Group, chaired by Italy, Saudi Arabia, and the United States, leads the effort to degrade ISIL's finances. Nationally, a large number of agencies are involved. Counterfinance efforts have led to notable successes, for example, cutting presumed oil revenues from \$500 million in 2015 to a projected \$250 million in 2016. These successes have been accompanied by, and both caused and been caused by, military and territorial gains against ISIL (Figure 1.1).

However, a simple, but important, question remains: How do these efforts affect ISIL, particularly its ability to raise money and use it to fund its operations? A key part of that ques-

Figure 1.1
ISIL's Territorial Losses Between January 2015 and July 2016



SOURCE: Columb Strack, "Islamic State Caliphate Shrinks a Further 12 Percent in 2016," IHS Jane's 360, July 11, 2016.

RAND CF361-1.1

tion is whether and how ISIL can compensate for losses in one revenue stream by increases in another stream. Considering ISIL's evolution under a range of projected conditions can help inform efforts to counter it and shape expectations about future successes and failures.

In June 2016, the RAND Corporation convened a small, half-day workshop in Arlington, Virginia, to consider potential ISIL financial trajectories in the short to medium term and discuss the resulting policy implications. RAND brought together eight experts from across several distinct, but interrelated, disciplines. The group included political scientists, economists, policy analysts, and former high-ranking military and intelligence community officials with decades of experience studying terrorism, counterterrorism, insurgency, and threat finance. Many participants also had direct experience in deployed environments, particularly Iraq and Afghanistan, in a military or civilian capacity. Participants' identities and comments in these proceedings are kept anonymous, in part to ensure a candid discussion. RAND followed human subjects protections in the workshop and in this report in accordance with U.S. federal policy and Department of Defense regulations governing human subjects protections. Participants' comments are based on their professional experiences and do not represent the policies and positions of their agencies, the U.S. Department of Defense, or the U.S. Government.

In preparation for the workshop, RAND provided participants with two documents. The first presented a brief, detailed analysis of the current state of ISIL's finances. It included sections on ISIL revenues, expenditures, coalition countermeasures, and a discussion of the group's ability to sustain its operational and organizational capabilities. Appendix B reproduces this document.

The second document described three scenarios. The participants were asked to judge how ISIL's revenue and expenditures might be affected six, 12, and 18 months from the start of each scenario. The scenarios were designed to serve as jumping-off points to elicit discussion and reveal possible future trajectories. RAND developed the scenarios in consultation with U.S. government officials, then worked within the research team to arrive at sufficient variation between each scenario. Workshop participants were instructed to take the starting points of each scenario as given so that discussion of what followed from the scenarios could be maximized. The workshop did not model the behavior of Jabhat al-Nusra (now Jabhat Fatah al-Sham) or other insurgent groups under the three scenarios.

Each scenario presented was analytically distinct: One featured the status quo, one featured a political settlement, and one featured a military victory over ISIL. Any campaign against ISIL likely will involve elements of all three scenarios, but separating these elements allowed for a more-focused discussion of each scenario's implications. Given the time and resource constraints of the workshop participants, the authors chose to focus on only these three scenarios, allowing participants to tease out important nuances without getting bogged down in small details. All scenarios assumed growing military pressure on ISIL, as RAND and U.S. government officials agreed that this was the most likely trajectory of the conflict.

These scenarios are reproduced below as they were sent to workshop participants (with minor adjustments for clarity). The footnotes have been added for this report to account for events since the workshop.

Scenario One: Status Quo

ISIL holds onto Mosul or Raqqa for at least the next 18 months. ISIL is under pressure in areas of both Syria and Iraq, but maintains its capital in Raqqa as well as control of significant

swaths of territory, including Mosul and areas to its south along both sides of the Tigris, major towns and villages along the Euphrates River valley, areas around Palmyra, and chunks of territory east of Aleppo stretching toward Raqqa. More recently, ISIL has proclaimed the Wilayat Sahel on the northwestern coast of Syria, where it launched complex suicide attacks in Tartus City and Jableh in late May 2016.¹ Even though the Iraqi Security Forces, Kurdish Peshmerga, or Popular Mobilization Units (PMU) are able to retake territory from ISIL, ISIL will likely still control significant areas for an undetermined future period. ISIL also still retains the ability to strike into the heart of Baghdad and its surrounding environs, and ISIL's potency as a terrorist group with lethal reach is unlikely to subside anytime soon. Iraqi and Syrian civilians will continue to suffer the brunt of the damage in terms of both anti-ISIL offensives and spectacular attacks conducted by ISIL.² In Syria, both state (Russia and Iran) and nonstate (Hezbollah) actors continue to maintain significant influence in various parts of the country. In Iraq, the root causes and structural factors leading to Sunni disenfranchisement are still unaddressed, and ongoing protests against the Iraqi government inevitably limit Prime Minister Haider al-Abadi's ability to bring together disparate political factions needed to maintain unity.³ The United States maintains its current level of training, partnering, weapons supplies, air support, and special operations activities.

Scenario Two: Negotiated Settlement

In Syria, Bashar al-Assad is removed from power and a new ruler is placed in power. A negotiated settlement in Syria could result from successful diplomatic initiatives as part of the Geneva peace talks on Syria (Geneva III). The major players include a constellation of both state and nonstate actors: the former include the Assad regime representing the Syrian state, its backers Russia and Iran, the United States, Turkey, Saudi Arabia, and likely some smaller, but still influential, Gulf states, such as Qatar. Nonstate actors include various Syrian rebel groups across the ideological spectrum and Kurdish factions. The most hardline Islamist groups, ISIL and Jabhat al-Nusra, would not be part of a negotiated settlement. A successful, multilateral agreement would likely include a cease-fire among all parties involved, with the exception of ISIL and Jabhat al-Nusra. Initial governance efforts focus on reforming Syrian institutions, forming a new government and creating a realistic timeline for free and fair elections, and outlining a plan for reunifying the country in some form. Even with a cease-fire in place, ISIL and Jabhat al-Nusra will continue to control pockets of territory throughout central and eastern Syria, but will be far more isolated than before the settlement.

Iraq also achieves a political reconciliation, at least for the short term. In this reconciliation, Kurdish parties and what is left of the Sunni political establishment agree to cooperate with the central government, which, in turn, is more solicitous of their demands. The Kurd-

¹ A *wilayat* is a province as declared by ISIL. We did not include this definition in the scenario as distributed to workshop participants, as all were familiar with the term.

² By "spectacular attacks," we mean mass casualty events, such as vehicle-borne improvised explosive devices set off at markets or other places where people congregate. ISIL has carried out such attacks either at different locations almost simultaneously, or at the same location in quick succession, with the second blast meant to harm rescuers.

³ We are grateful to one reviewer for pointing out that this could also appropriately be written as Abadi's ability to *restore* unity.

istan Regional Government puts aside an independence referendum. The government, with Sunni Arab allies and U.S. support, succeeds in edging the more extreme Shia PMUs (Asaib Ahl al-Haq and Kataib Hizbullah) away from counter-ISIL battlefields.

Scenario Three: Total Territory Loss Through Combat

Through combat operations, ISIL is expelled from Fallujah, Mosul, and Raqqa.⁴ Assad remains in power in Syria, and the Iraqi government remains fractured and ineffective, but the Kurds are still part of Iraq. Some ISIL elements may remain scattered throughout Syria and Iraq, others may return to their countries of origin, and yet others may flee to ISIL strongholds in places like Libya to regroup and continue fighting. While ISIL holds little to no territory, it is capable of periodic terrorist attacks against soft targets in major population centers, such as markets in Baghdad, and of running a variety of criminal schemes to raise money.⁵

Structure of the Workshop

When the workshop began, participants were instructed to avoid debating the likelihood of each specific scenario or how the research team arrived at these specific scenarios and only discuss the implications of each scenario on ISIL's revenues and expenditures at six, 12, and 18 months from the start. The research team was present during the workshop to answer any questions about the scenarios and clarify any information about the baseline analysis, but did not participate in the discussions.

The RAND team originally planned to guide the workshop discussions through each scenario at the specific six-month benchmarks, but this plan changed once the workshop began. The nature of the scenarios, differing assessments provided by the participants, and the multiple variables contributing to ISIL's future behavior resulted in rich analytic dialogue surrounding common themes and patterns that spanned time frames instead of linear analysis following a six-, 12-, and 18-month calendar.

In addition to conversations on revenues and expenditures, participants deviated from the financially focused discussion at times to discuss variables affecting ISIL as an organization and other actions ISIL might take as a result of successes or setbacks as part of the scenarios. In this report, we present main points of agreement and disagreement stemming from the discussions about all three scenarios. The value of presenting main points of agreement is that they suggest how ISIL will evolve financially regardless of the actions of the counter-ISIL coalition. The value of presenting main points of disagreement is that they highlight the uncertainties regarding ISIL's financial evolution and can guide collection efforts regarding information that might illuminate ISIL's development.

This report remains faithful to the workshop findings: The authors have not infused their own analysis into the document beyond points of clarification. In addition, an earlier version of the report was sent to all workshop participants for their comments to ensure the report accu-

⁴ Since the workshop, ISIL has been expelled from Fallujah and has also lost parts of Mosul.

⁵ This is the scenario as discussed in the workshop. The scenario as distributed in advance was slightly different. This difference is discussed in Appendix B.

rately reflects what transpired within the workshop itself. In Chapter Two, we present an overview of ISIL finances. Chapter Three then presents major points of agreement and disagreement in workshop discussions, and Chapter Four presents implications for counter-ISIL actions. Appendix A provides a detailed analysis of the workshop discussions for each scenario. Appendix B reproduces the financial backgrounder exactly as it was provided to all workshop participants.

ISIL's Finances

On October 17, 2016, troops from federal Iraq and the Kurdistan Region of Iraq, backed by less-formal fighting forces and a U.S.-led multinational coalition, started their military campaign to reconquer ISIL-held Mosul, Iraq's second-largest city. Winning this battle could cause great damage to ISIL not just practically, but symbolically as well; in July 2014, ISIL leader Abu Bakr al-Baghdadi used a mosque in Mosul to call on all Muslims to obey him as leader of a restored caliphate.¹

Shortly after ISIL stormed onto the world stage in summer 2014, overrunning major cities in western and northern Iraq and taking over Mosul, the group's actions and achievements were characterized by superlatives and hyperbole. However, the claim that ISIL was the richest terrorist group in the world after its seizure of resources throughout Iraq—including at least \$500 million from various banks in northern and western Iraq—was not wholly inaccurate. Even as of October 2016, some estimates stated that ISIL was raising \$4 million in taxes per month in Mosul.²

Today, there are concerted efforts to counter ISIL financial activity. U.S. government agencies, the multilateral Financial Action Task Force, and the multinational Counter-ISIL Finance Group are among several organizations responsible for preventing ISIL from raising, transferring, and spending money in support of its war aims.

Understanding ISIL finances is important because the group's revenues allow it to conduct military operations to defend its borders and grab new territory, security operations to quash opposition, media operations to attract new followers, and state-like activities to provide at least some services to the population and present an image of a functioning state. Previous research has shown that the pace of military operations can be tied to expenditure patterns.³

These multiple counter-ISIL finance efforts lead to an important question: How can policymakers know what effects degrading ISIL finances will have under a variety of scenarios? In order to predict these effects, we must understand ISIL finances.

This chapter presents an overview of ISIL finances through summer 2016, with some modest updates to take account of more recent events. It is a slightly revised version of a back-

¹ Hannah Strange, "Islamic State Leader Abu Bakr al-Baghdadi Addresses Muslims in Mosul," *The Telegraph*, July 5, 2014.

² Vivian Salama, "As Territory Shrinks, ISIS Looks for New Money Sources," *Seattle Times*, October 19, 2016.

³ Benjamin Bahney, Howard J. Shatz, Carroll Ganier, Renny McPherson, and Barbara Sude, with Sara Beth Elson and Ghassan Schbley, *An Economic Analysis of the Financial Records of al-Qa'ida in Iraq*, MG-1026-OSD, Santa Monica, Calif.: RAND Corporation, 2010.

ground memo sent to all workshop participants in advance of the workshop (the actual background memo is reproduced verbatim in Appendix B).

How ISIL Makes Its Money

ISIL's ability to earn vast sums of income from numerous revenue streams has contributed to its successful financing. Two sources of revenue have provided ISIL with the lion's share of its war chest: oil and "taxation" (the latter includes what we would consider extortion). ISIL's overall 2015 revenues have been estimated to range from \$1 billion to \$2.4 billion.⁴

Oil

A significant portion of the money raised by ISIL comes from oil. The group captured key oil fields and refineries in northeastern Syria and northern Iraq between June 2014 and September 2014, and it also controls key roads and other centers of commerce.⁵ In mid-2016, ISIL still controlled approximately 60 percent of the oil wells in Syria and 5 percent of the oil wells in Iraq.⁶ ISIL sells oil, oil products, and gas to a range of buyers, including dealers in Syria and Iraq, who resell to the local market and the Assad regime.⁷ ISIL derives most of its oil revenue from local sales, which are taxed multiple times along the supply chain from oilfield to refinery to local markets. Estimates of ISIL oil revenue from late spring 2016 ranged from \$250 million per year to nearly \$365 million per year.⁸ These revenues are estimated to have declined, although without specific dollar figures being cited.⁹ The decline has been especially steep in Iraq; as of September 2016, ISIL reportedly no longer controlled any oil wells there at all.¹⁰

Taxation and Extortion

ISIL extorts between 2.5 and 20 percent of revenue from businesses in its territories and operates other "mafia-style" rackets that help the group earn money. These taxes have included fines collected by ISIL morality police.¹¹ ISIL couches its extortion-related activities in terms of *zakat*, the traditional Muslim tax on capital or wealth, and *jizya*, which is traditionally a tax

⁴ Daniel L. Glaser, testimony before the House Committee on Foreign Affairs Subcommittee on Terrorism, Nonproliferation, and Trade and House Committee on Armed Services Subcommittee on Emerging Threats and Capabilities, June 9, 2016b; Center for the Analysis of Terrorism, *ISIS Financing 2015*, Paris, May 2016.

⁵ Tom Keatinge, "How the Islamic State Sustains Itself: The Importance of the War Economy in Syria and Iraq," *RUSI Analysis*, August 29, 2014b.

⁶ Joby Warrick and Liz Sly, "U.S.-Led Strikes Putting a Financial Squeeze on the Islamic State," *Washington Post*, April 2, 2016.

⁷ Daniel L. Glaser, remarks delivered at Chatham House, London, February 8, 2016a; Jay Solomon and Benoit Faucon, "An Energy Mogul Becomes Entangled with Islamic State," *Wall Street Journal*, May 8, 2016.

⁸ Yeganeh Torbati, "Islamic State Yearly Oil Revenue Halved to \$250 million: U.S. Official," Reuters, May 11, 2016; Benoit Faucon and Margaret Coker, "The Rise and Deadly Fall of Islamic State's Oil Tycoon," *Wall Street Journal*, April 24, 2016.

⁹ Loaa Adel, "ISIS Revenues from Smuggled Oil Decline After Sharqat Liberation," *Iraqi News*, September 24, 2016.

¹⁰ "ISIS No Longer Controls Any Iraqi Oil," *Rudaw*, September 27, 2016.

¹¹ Patrick B. Johnston, "Islamic State's Money Problems," *USA Today*, March 4, 2016.

paid by non-Muslims living in Muslim lands and is similar to other forms of “revolutionary” taxes collected by a number of other insurgent groups.¹²

Through summer 2016, it remained unclear whether Syria or Iraq provided ISIL with more tax revenue. Mosul has been a major source of taxation revenue for ISIL, with the bulk of funding coming from the commercial, reconstruction, and oil sectors.¹³ ISIL also extorts individuals and groups moving through border crossings into and out of its territory and between Syria and Iraq.¹⁴ The group has even gained revenue from the Syrian government, as was the case in February 2013, when ISIL militants seized the Tabqa Dam and sold electricity back to the Assad regime.¹⁵

Other Sources of Revenue

ISIL has a diversified funding portfolio. ISIL controls significant resources within Syria and Iraq’s industrial and agricultural sectors, and although ISIL has mostly lost access to state-owned banks in northern and western Iraq, these banks did provide the group with at least \$500 million.¹⁶ ISIL has also earned money through kidnapping for ransom; the U.S. Treasury estimated that ISIL made \$20 million to \$45 million in 2015. ISIL also raises money through the sale of antiquities; exchange rate arbitrage (indirect participation with exchange houses and banks during Central Bank of Iraq currency auctions, in which dollars can be bought at below-market rates and then resold at market rates); and everyday activities, such as running fish farms and selling used cars. ISIL has maintained a minimal reliance on foreign donors, although accusations have surfaced of wealthy sympathizers and individuals from Qatar and Kuwait donating money to the group.¹⁷

How Much Money Does ISIL Make?

There is no consensus on how much money ISIL makes. Assistant Secretary of the U.S. Treasury Department Daniel L. Glaser did comment that ISIL’s revenue from oil had been halved from \$500 million in 2015 to approximately \$250 million.¹⁸ Even with that decrease in oil revenue, ISIL still may have earned \$350 million per year from extortion.¹⁹ It is believed that ISIL

¹² Michael Jonsson, “Following the Money: Financing the Territorial Expansion of Islamist Insurgents in Syria,” Swedish Defense Research Agency, FOI Memo #4947, May 2014.

¹³ Patrick B. Johnston and Benjamin Bahney, “Hitting ISIS Where It Hurts: Disrupting ISIS’s Cash Flow in Iraq,” *New York Times*, August 13, 2014.

¹⁴ Ben Hubbard, Clifford Krauss, and Eric Schmitt, “Rebels in Syria Claim Control of Resources,” January 28, 2014; Raja Abdulrahim, “In Syria’s Mangled Economy, Truckers Stitch Together Warring Regions,” *Wall Street Journal*, May 24, 2016.

¹⁵ Ariel Ahram, “The Dangerous Mixture of Oil and Water in Iraq,” *Political Violence @ a Glance*, August 18, 2014; Hwaida Saad and Rick Gladstone, “Syrian Insurgents Claim to Control Large Hydropower Dam,” *New York Times*, February 11, 2013.

¹⁶ Glaser, 2016b.

¹⁷ Scott Bronstein and Drew Griffin, “Self-Funded and Deep-Rooted: How ISIS Makes its Millions,” CNN.com, October 7, 2014.

¹⁸ Glaser, 2016a.

¹⁹ Glaser, 2016b. Note that Glaser has also been cited as saying that ISIL earned \$360 million, rather than \$350 million, annually from extortion and taxation (Torbati, 2016).

seized control of between \$500 million to more than \$1 billion from bank vaults across Syria and Iraq, although substantial portions of ISIL bulk cash reserves may have been destroyed by Coalition airstrikes over the past year.²⁰ Figures from IHS assert that ISIL's monthly revenue has been diminished by as much as 30 percent over the past year, from roughly \$80 million per month to \$56 million per month (equivalent to \$960 million per year and \$672 million per year, respectively).²¹ This includes a 26-percent drop in revenue earned from oil and gas, a 23-percent drop in revenue earned from taxation and extortion, and a 67-percent drop in revenue earned from sources listed as "other," which IHS defines as drug smuggling, sale of electricity, and donations.²² Likewise, Combined Joint Task Force – Operation Inherent Resolve (CJTF-OIR), the command heading the multinational counter-ISIL coalition, has said that Tidal Wave II air operations, starting in October 2015, reduced ISIL's oil production from 45,000 barrels per day to 34,000 barrels per day—a 24-percent decrease. IHS also claims that 43 percent of ISIL's overall revenue comes from oil, while 50 percent comes from taxation and extortion, which seems to be close to the yearly \$250 million and \$360 million figures.

How ISIL Spends Its Money

In some ways, ISIL spends its money much in a similar manner as other terrorist and insurgent groups. Some of its money goes to paying fighters' salaries and some goes for weapons procurement. Yet unlike other terrorist and insurgent groups, ISIL must earmark funding for maintaining the vast infrastructure of its caliphate and providing basic services to those living within its territory. Details are hard to come by, but there have been several credible reports, especially in the *Financial Times* and *New York Times*.²³ The rest of this section draws from those accounts.

The group has a central budget in Mosul, as well as regional budgets. Reports consistently state that the majority of the spending supports the war effort. A *Financial Times* report noted that monthly expenses included \$20 million for the core fighting force, \$15 million to \$20 million for auxiliaries and local fighters, tens of millions for munitions, and \$10 million to \$15 million for its security sections. The report noted that at one point, compensation amounted to \$600 million per year, about two-thirds of the group's expenditures at that time.²⁴

²⁰ Matthew Rosenberg, Helene Cooper and Nicholas Kulish, "ISIS Expands Reach Despite Military and Financial Setbacks," *New York Times*, April 12, 2016. Immediately after ISIL took over Mosul and the seizure of banks became known, there was at least one media report that ISIL had not, in fact, taken the bank money (Borzou Daraghi, "Biggest Bank Robbery that 'Never Happened'—\$400m ISIS Heist," *Financial Times*, July 17, 2014). However, since then, U.S. Treasury officials and the media have reported consistently that these seizures did happen, and other reports to the contrary have not emerged.

²¹ IHS Inc., "Islamic State Revenue Drops to \$56 Million, IHS Says," April 18, 2016.

²² IHS Inc., 2016. Recent developments suggest that ISIS may be profiting from the taxation of drugs being smuggled through territory it controls in Libya. For more, see Rukmini Callimachi and Lorenzo Tondo, "Scaling Up a Drug Trade, Straight Through ISIS Turf," *New York Times*, September 13, 2016.

²³ Sam Jones and Erika Solomon, "ISIS Inc.: Jihadis Fund War Machine But Squeeze 'Citizens,'" *Financial Times*, December 15, 2015; Ben Hubbard, "ISIS Promise of Statehood Falling Far Short, Ex-Residents Say," *New York Times*, December 1, 2015b; Ben Hubbard, "Offering Services, ISIS Digs in Deeper into Seized Territories," *New York Times*, June 16, 2015a.

²⁴ Jones and Solomon, 2015.

Reports of salaries have varied. One report held that in the summer of 2015, ISIL was paying members \$100 per month, with \$100 extra per parent and \$40 per sibling.²⁵ However, more recent documents have put those amounts at \$50 per fighter, wife, and sex slave and \$35 for other dependents.²⁶ Other reports indicated that skilled workers received more; for example, in a December 2015 report, an oilfield technician reported receiving \$675 per month, up from an initial \$450—well above his \$150 Syrian government salary.²⁷

At its peak of power in summer 2015, ISIL appeared to be conducting public works, such as fixing power lines, digging sewer systems, painting sidewalks, and running bus services from Syria to Iraq. The group also conducted regulatory functions, such as ensuring the safety of food in markets, and ran schools and hospitals, although the quality of those services was presumably low. In addition, ISIL has always provided its own justice system in its territories.

By December 2015 and into 2016, it appeared that many of these services had been cut back or eliminated; in addition, maintenance was not being done. The National Hospital in Raqqa was essentially closed because most doctors had fled. Fighter pay was reported to have been cut by 50 percent. People who had left ISIL territory said that the group's promises had not been kept.²⁸

Change Over Time

Countering ISIL's finances is one of several main lines of effort for the coalition. Under the auspices of Operation Tidal Wave II, coalition airstrikes have reduced ISIL oil revenues by between 30 to 50 percent. Before the operation, the group was making roughly \$40 million per month.²⁹ Within this line of effort, the focus has remained on directly targeting the oil and gas supply chain. Separate lines of effort include attacking bulk cash storage sites, eliminating high-value targets critical to ISIL financial and logistical operations, and capitalizing upon several other important variables, including economic downturns in Syria and Iraq. The low price of oil globally might have some impact as well, in addition to ISIL's continued loss of territory. In some areas where ISIL is losing territory, it has adopted a scorched-earth strategy, destroying gas field installations as it retreats.³⁰ By June 2016, ISIL had lost approximately 47 percent of all the territory it once held.³¹ Iraqi forces liberated the northern city of Baiji and the Anbar cities of Ramadi and Fallujah, and as of late October 2016 were progressing toward the liberation of Mosul. Kurdish and Yazidi forces have driven ISIL fighters out of the northern city of Sinjar. In Syria, by fall 2016, Kurdish-dominated Syrian Democratic Forces and Turkish-backed Free Syrian Army fighters had retaken the cities of Manbij and Jarabulus, foreshadowing an eventual advance on ISIL's capital in Raqqa.

²⁵ Hubbard, 2015a.

²⁶ Aymenn al-Tamimi, "A Caliphate Under Strain: The Documentary Evidence," *CTC Sentinel*, Vol. 9, Issue 4, April 2016, pp. 1–8.

²⁷ Hubbard, 2015b.

²⁸ Denver Nicks, "ISIS Fighters Just Got a Huge Pay Cut," *Money*, January 19, 2016.

²⁹ Johnston, 2016.

³⁰ James Burgess, "Scorched Earth Strategy? ISIS Blows Up Several Al Shaer Gas Field Installations," *Oilprice.com*, May 17, 2016.

³¹ John Hudson, "Top U.S. Official: Islamic State Has Lost 47 Percent of its Territory in Iraq," *Foreign Policy*, June 28, 2016.

Disruption of the Oil and Gas Supply Chain

The targeting of ISIL's oil and natural gas supply chain includes airstrikes against oilfields, refineries, and tanker trucks—the entire ISIL oil and gas supply chain.³² The coalition has destroyed hundreds of trucks, disrupted fuel supply lines across and outside of ISIL territory, and hit key infrastructure at oilfields and other oil production sites. Overall, this has diminished ISIL's capability to sell oil and the capacity of ISIL and purchasers to make and sell refined products, such as gasoline.

Turkey has finally increased its efforts to stop the flow of men and materiel crossing its borders, thereby restricting ISIL's access to the black market.³³ Securing the border is a Herculean task, but one the Turks seem more firmly committed to in the wake of recent terrorist attacks in some of their major cities. While the border will likely never be fully secure, more earnest efforts to deploy military and police along the border have clearly helped deter smugglers from moving contraband back and forth.

Bulk Cash Targeting

Airstrikes have also targeted ISIL cash storage sites in Iraq. Two airstrikes in January 2016 in Mosul destroyed an uncertain amount of money, while four more airstrikes in February hit cash storage and distribution facilities; estimates have ranged from tens of millions of dollars to a billion dollars, although all estimates are highly uncertain.³⁴ Further attacks on cash storage sites have occurred since March 2016. In October 2016, the U.S. Treasury estimated that “at least tens of millions, and possibly more than a hundred million dollars” had been destroyed.³⁵

Airstrikes have successfully targeted important individuals, killing a number of high-ranking financial officials, including two of the group's finance ministers, Abu Saleh in November 2015 and Haji Imam in March 2016 (although Haji Imam was more of an operational official than a finance official), and an oil minister, Abu Sayyaf, in May 2015. The airstrikes on bulk cash sites, finance distribution, and tax collection centers complement cyber reconnaissance and operations the United States is conducting against ISIL financial assets.³⁶ In turn, financial intelligence reveals nonfinancial information, such as relationships between ISIL personnel, patterns of life, foreign fighter movements, and sources of resource supply and resupply.³⁷ The attacks on cash storage depots have caused the group to start selling off some of its valuable assets, including vehicles.³⁸ For those vehicles it still does have, ISIL has been forced to ration fuel.³⁹

³² Adam Szubin, “Remarks of Acting Under Secretary Adam Szubin on Countering the Financing of Terrorism at the Paul H. Nitze School of Advanced International Studies,” U.S. Treasury, October 20, 2016.

³³ Ayla Albayrak and Dana Ballout, “U.S., Turkey Step Up Border Campaign Against Islamic State,” *Wall Street Journal*, April 26, 2016.

³⁴ Johnston, 2016.

³⁵ Szubin, 2016.

³⁶ David E. Sanger, “U.S. Cyberattacks Target ISIS in a New Line of Combat,” *The New York Times*, April 24, 2016.

³⁷ Robert Windrem and William M. Arkin, “How to Beat ISIS: Blow Up the Money,” *NBC News*, May 1, 2016.

³⁸ Conor Gaffey, “Up to \$800 Million of ISIS Cash Has Been Destroyed: U.S. Official,” *Newsweek*, April 27, 2016. See also BBC News, “Islamic State: Up to \$800m of Funds ‘Destroyed by Strikes,’” April 26, 2016.

³⁹ Jim Michaels, “U.S.-Led Coalition Blows Up \$500 Million in Islamic State Cash,” *USA Today*, April 21, 2016b.

Decreasing Liquidity

A relatively new coalition effort is underway to decrease cash flowing into ISIL-held territory. By summer 2015, the Iraqi government had decided to ban the distribution of government salaries into ISIL-held territories and instead hold them in escrow; ISIL had been taxing these salaries as a source of revenue. Before this decision was taken, the Iraqi government was paying approximately \$170 million per month in 2015—the equivalent of \$2 billion per year—into ISIL-held territory.⁴⁰ Furthermore, Iraq has begun to prohibit bank branches in cities and towns held by ISIL from making international transfers, instead ordering all requests to be routed through the central bank in Baghdad, where they can, in theory, be intercepted and stopped. The U.S. Treasury, in cooperation with the Central Bank of Iraq, is working to prevent ISIL from accessing the international financial system. Ninety bank branches within ISIL-held territory have been cut off from both the international and Iraqi banking system, and 150 exchange houses have been banned from participation in Central Bank of Iraq dollar auctions. These banking restraints mean that ISIL will have to continue to store its cash in warehouses and vaults, which are increasingly vulnerable to airstrikes.⁴¹ Furthermore, a block on access to exchange houses and currency auctions will limit ISIL's ability to procure U.S. dollars and deny the group potential revenue from exchange rate arbitrage.

On the multilateral front, the Counter-ISIL Finance Group is tasked with preventing ISIL from using the international financial system, including unregulated money remitters; countering ISIL extortion and exploitation of economic assets and resources; denying ISIL external funding; and preventing ISIL from providing financial or material support to foreign affiliates.⁴² The Financial Action Task Force, the intergovernmental standard-setting body against money laundering and terrorism financing, is working with the Counter-ISIL Finance Group.⁴³

In addition, the United States and Iraq have established the Bilateral Commission to Counter Terrorist Financing, focused on information and intelligence exchanges; the United States has sanctioned 30 ISIL-linked senior leaders, financiers, foreign terrorist fighter facilitators, and ISIL branches; and the United Nations has passed Security Council Resolution 2253, which builds upon the existing al-Qa'ida sanctions regime and seeks to cement multilateral cooperation to counter ISIL financing.

Will ISIL Be Able to Weather the Financial Storm?

ISIL is resilient—some might say regenerative.⁴⁴ Its ability to mitigate efforts countering its financing is directly related to several factors. ISIL has retained technical expertise from previous governments and the private sector (for example, the corporate oil structure), promotes

⁴⁰ Glaser, 2016a.

⁴¹ Jim Michaels, "Air Campaign Shifts to ISIL's Cash and Oil," *USA Today*, April 17, 2016a.

⁴² U.S. Department of State, "Establishment of the Counter-ISIL Finance Group in Rome, Italy," media note, March 20, 2015.

⁴³ Financial Action Task Force, *Financing of the Terrorist Organisation Islamic State in Iraq and the Levant (ISIL)*, Paris, 2015.

⁴⁴ Howard J. Shatz and Erin-Elizabeth Johnston, *The Islamic State We Knew: Insights Before the Resurgence and Their Implications*, RR-1267-OSD, Santa Monica, Calif.: RAND Corporation, 2015.

limited state ownership of industry beyond regulatory and taxation roles, and boasts an ability to balance its expenditures and revenues.⁴⁵ ISIL has territorially based sources of revenue other than oil, such as phosphate mines and agriculture; at various points, ISIL has controlled as many as five important cement plants in Iraq and Syria.⁴⁶ Unlike al-Qa'ida, ISIL does not rely on donations as a major source of revenue and so is less susceptible to traditional sanctions. The sheer volume of money initially accumulated by ISIL is more than any group in modern history, which would certainly insulate it against its current losses for a time and allow the group to remain financially autonomous as it deals with ongoing austerity measures.⁴⁷ In addition, in its past as a clandestine group, ISIL was able to cut expenses and continue raising money through extortion rackets and other fundraising activities. These factors leave ISIL's future uncertain, even as the group faces greater military and financial pressure.

⁴⁵ Johnston, 2016.

⁴⁶ Center for the Analysis of Terrorism, 2016, p.13. See also Eckart Woertz and Hadi Jaafar, "It's Not Funded Just By Oil and Looting. How the Islamic State Uses Agriculture." *Washington Post*, September 27, 2016.

⁴⁷ Tom Keatinge, "The Importance of Financing in Enabling and Sustaining the Conflict in Syria (and Beyond)," *Perspectives on Terrorism*, Vol. 8, No. 4, August 2014a.

Major Themes in ISIL's Financial Futures

Workshop participants discussed the implications of three ISIL scenarios for the future of ISIL finances: a status quo situation, in which present political and military trends continued; a negotiated settlement in Syria and political reconciliation in Iraq; or a total combat victory against ISIL, without any negotiated settlement or political reconciliation. During the discussion, several important themes and common conclusions emerged across each scenario. We highlight those themes in this chapter, both in terms of workshop participants' agreements and disagreements. These findings were current as of late June 2016.

Points of agreement suggest how ISIL will evolve financially regardless of the actions of the counter-ISIL coalition and provide stronger confidence in certain baseline assumptions regarding ISIL's financial future. Points of disagreement could become collection and analysis priorities to gain visibility into ISIL's evolution.

Themes discussed included ISIL's adaptability and resilience; ISIL's ability to maintain its brand, with or without the loss of its caliphate; other actors' views of ISIL if it remains locked in a military stalemate with the international coalition; the ability and willingness of governments in Syria and Iraq to address the underlying grievances that provide ISIL with legitimacy among parts of their respective populations; and the level of future involvement by external state actors, nonstate actors, and the group's global roster of affiliates.

Areas of Agreement Across Scenarios

Workshop participants agreed on several issues. These included ISIL's adaptability and resilience, ISIL's persistence, and the effects of stalemate on ISIL.

ISIL Is a Highly Adaptable and Resilient Organization

Perhaps the least controversial observation within the workshop was the statement that as an organization, ISIL is particularly adaptable and resilient. Participants agreed on this point even in scenarios of political reconciliation or combat victory against the group. Participants offered myriad examples from the past several years in which ISIL has overcome challenges and obstacles, even without unilateral control over territory. Part of what makes ISIL so adaptable is its organizational structure. Although ISIL is well organized, with a defined bureaucracy and lines of reporting, it is not monolithic, and the autonomy given to its constituent parts make

it akin to an opportunistic, disaggregated movement.¹ ISIL's financial portfolio has evolved in the face of strain in the past, with the group seeking to make up for shortfalls in certain revenue streams in previously untapped markets.

Participants noted that ISIL may be able to adapt and survive, despite financial and operational setbacks, by transforming into an al-Shabaab-type organization that holds no territory but organizes and conducts hit-and-run and ambush attacks, or by transforming into a hybrid criminal-terrorist group similar to al-Qa'ida in Iraq (AQI). In 2006, AQI changed its name to the Islamic State of Iraq and retained an important resource base in Mosul, where its extortion rackets, contract skimming, and other criminal activities continued to provide a valuable revenue stream. This all occurred in the face of a ferocious military and political campaign against the group that involved the Sunni Awakening, an increase of U.S. troops and a change in coalition strategy, sophisticated targeting operations, and ongoing military activities by a multinational coalition with Iraqi security forces.

Regardless of organizational structure or future territorial control, participants concluded that ISIL's ability to appropriate resources, tax, and extort local populations will allow the group to retain modest levels of revenue. Its need to spend these revenues to pay for the costs of governing local areas and for fighter salaries varied significantly based upon the scenario discussed.

ISIL Will Persist as an Insurgent and Terrorist Organization for Years to Come

Similar to the collective observation that ISIL is highly adaptable, workshop participants agreed that ISIL would continue to exist as some form of terrorist or terrorist hybrid organization well past the 18-month timeframe discussed in the workshop. Participants agreed that even significant degradation of ISIL's finances would not destroy the group. Regardless of whether ISIL loses territory through the current trajectory of combat operations or a major military defeat, participants said that ISIL would continue to survive in the medium term, particularly if underlying grievances of the Iraqi and Syrian populations were not addressed. Participants also agreed that the political will to assuage grievances of Sunni populations was absent in both Iraq and Syria at the present.

Additionally, participants largely agreed that if the structural factors that led to the rise of ISIL persisted—including the security vacuum resulting from the Syrian civil war and continued marginalization of Sunnis in Iraq—then another group would likely emerge to replace ISIL in the event of its fracture or defeat. Such a group could be as extreme and violent as ISIL itself, or perhaps even more extreme and violent, as underlying political grievances continued unabated.

Finally, participants noted that the United States and its partners must continue to degrade ISIL's operational capabilities in the long term, no matter what form the group takes. This would require a long-term commitment from coalition members to support a persistent and aggressive military- and intelligence-led counterterrorism campaign, modeled after a similar effort against core al-Qa'ida in Pakistan.

¹ Andrew Liepmann and Colin P. Clarke, "Demystifying the Islamic State," *U.S. News & World Report*, August 23, 2016; Patrick B. Johnston, Jacob N. Shapiro, Howard J. Shatz, Benjamin Bahney, Danielle F. Jung, Patrick Ryan, and Jonathan Wallace, *Foundations of the Islamic State: Management, Money, and Terror in Iraq, 2005–2010*, Santa Monica, Calif.: RAND Corporation, RR1192-DARPA, 2016.

The ISIL Brand

ISIL dedicates significant resources to media and propaganda efforts to portray itself as the leader of the global jihadist movement. The group portrays its governance apparatus as sophisticated and well resourced and its external attacks as part of a transnational network of adherents capable of waging global jihad. ISIL's brand, like the organization itself, has proved resilient in the face of setbacks, and the group remains popular among a niche demographic of hardcore adherents and sycophants.

Workshop participants agreed that even if ISIL's current image is discredited, the group would likely attempt to reconstitute itself, perhaps under a different name, while continuing to exploit the population for money and resources. With less territory, ISIL will have less money, but it will try to change its messaging and tailor its activities to retain its brand—continuing to conduct attacks locally, within the region, and further abroad. However, participants doubted whether such a gambit would ultimately succeed at saving the brand in the long term.

Stalemate Signals ISIL Victory

The workshop participants overwhelmingly felt that a medium- to long-term stalemate in Iraq and Syria will allow ISIL to gain an advantage by building its finances, its brand, and its operational capabilities, all while cementing its role as a powerful political entity. This agreement was particularly strong during the discussion of the status quo scenario. Experts on counterinsurgency have noted that an insurgent group wins by not losing.² This observation generated widespread agreement about ISIL's durability and staying power without a combined political and military victory against the group. Moreover, ISIL's ability to survive, even while conducting fewer attacks and occasionally reverting to a quasidormant phase, would create an indelible impression of strength among local populations in areas of contested governance.

Areas of Disagreement

The workshop also elicited differing opinions on the likelihood and timeliness of certain developments in ISIL's finances. Some of these disagreements were substantive in nature—a portion of the group believed that some outcomes were likely to happen and another portion did not. Other disagreements were temporal in nature—some participants expected the effects of a scenario to occur earlier, while others argued that these changes would develop at a later stage.

The following questions produced particular areas of disagreement across all scenarios—status quo, political progress against the group, or combat victory against the group.

- Will ISIL seek and acquire external state sponsorship (or accept an unsolicited offer of external state sponsorship)? Will that financing actually significantly affect ISIL's future?
- Will ISIL attempt to construct a closed economy in territory that remains under its control?
- Will ISIL shift its strategic priority from violent jihad toward governance in pursuit of a more balanced civil-military strategy, as Jabhat al-Nusra did? Will such a shift increase ISIL's longevity by making it the “least bad” option among potential factions claiming to represent the Sunni population in Iraq and Syria?

² Eliot Cohen, Conrad Crane, Jan Horvath, and John Nagl, “Principles, Imperatives, and Paradoxes of Counterinsurgency,” *Military Review*, March–April 2006, pp. 49–53.

- Will ISIL increase or decrease its efforts to obtain weapons of mass destruction (WMD) and use them to conduct mass-casualty attacks?

These disagreements are similar to disagreements analysts had about the future of the Islamic State of Iraq, ISIL's predecessor, in 2010 and 2011.

Furthermore, workshop participants disagreed on the role that a variety of factors would play in ISIL's financial future. These included:

- **The level of involvement by *wilayats*, or provinces (sometimes composed of franchise groups), outside the core ISIL area of Iraq and Syria.** Some participants saw a mutually beneficial relationship between core ISIL and some of the more robust franchise groups, such as those in Libya, Sinai, and South Asia, while others believed the relationship between core and periphery was weak and largely based on ISIL's brand. The strength of these connections has a significant effect on the ability of ISIL's *wilayats* to raise revenue for any ISIL core that remains in Iraq and Syria or to host group leadership in the event of defeat in Iraq and Syria.
- **How closely ISIL's brand is tied to the idea of a caliphate with territorial holdings.** Participants disagreed over whether the loss of Raqqa and Mosul would result in a permanent tarnishing of ISIL's brand. (ISIL is attempting to manage its losses; before his summer 2016 death, ISIL spokesman Abu Muhammad al-Adnani had begun noting ISIL's roots as a guerilla insurgency in an attempt to show that ISIL objectives were not directly tied to territorial control.) More of the participants believed that territorial losses would destroy the ISIL brand, but other groups would rise and the dream of the caliphate would not disappear.
- **How long it will take for ISIL's brand to lose its appeal in the event of military or political progress against the group.** Some workshop participants said that if ISIL were to lose Mosul and Raqqa, it would quickly lose its brand. Others argued that this decay would be a much lengthier process, and that ISIL would continue to exploit local grievances and increase its emphasis on terrorist attacks to try to retain its brand.

It is important to note that even though participants attended the workshop to focus on financial issues, they also discussed nonfinancial issues, such as ISIL's potential quest for WMD, ISIL's relationship with its provinces, and ISIL's branding issues. Each of these nonfinancial issues has some relationship to ISIL financing—some stronger, some weaker—and were thus germane to the overall discussion and workshop agenda.

Implications for the Counter-ISIL Effort

The discussion of the three scenarios offered a number of implications for the counter-ISIL effort. Countering funding requires disrupting illicit markets and networks, feeds into countering ISIL governance, and undermines ISIL legitimacy. Workshop participants discussed all these aspects and included actions to counter specific means of raising money within ISIL territory, using financial information to damage the group, degrading its ability to raise money across its territory, and ensuring that it does not shift to raising money from beyond its territory.

Coalition forces have demonstrated the ability to conduct precise, intelligence-led strikes on ISIL's oil operations and its bulk-cash sites in Iraq and Syria. To cripple the group's main sources of wealth, it will remain necessary to continue these operations.

In the short term, a lack of opposition forces capable of reclaiming and holding all of ISIL's territory means that ISIL continues to control important non-oil economic resources, including portions of Iraq and Syria's agricultural, manufacturing, and financial sectors. ISIL will seek to compensate for losses in certain revenue streams by increasing revenue generation in other areas, and these other resources should be considered for targeting or sanctioning. This is particularly true with respect to an increase in taxation and extortion of the local population. Coalition forces will need to dedicate more resources in training Iraqi and other law enforcement entities, beyond advising, assisting, training, and equipping their military efforts. These forces can focus on combating ISIL's renewed efforts to earn revenue through taxation and extortion.

ISIL supply chains for the trade of goods and services with non-ISIL elements, any intermediaries that facilitate that trade, and end purchasers who know they are dealing with ISIL should be identified and considered for sanctioning and targeting. Gaining visibility on economic resources and supply chains may require redirection of intelligence resources or new intelligence resources. The goal would be to sustain operations against ISIL trade networks and disrupt the economic sectors that ISIL uses to finance itself. Consideration of any necessary new authorities should begin early.

If the coalition can degrade ISIL finances to the point at which the group struggles to pay salaries, this may rupture internal cohesion between fighters and leadership and hamper recruitment. ISIL's predecessor group, ISI, had trouble with embezzlement, and ISIL also may have such problems with its own fighters. Highlighting these financial failures through effective messaging could worsen public perceptions of ISIL's solvency and trustworthiness, especially among members, prospective members, or sympathizers. Declassifying any recently captured ISIL documents citing financial strain would further reinforce this message and aid

coordination among the countries of the international counter-ISIL coalition.¹ Beyond specific sectors and activities, such as oil or trade, coalition forces must break ISIL control over the economy and separate ISIL from the population from which it profits. Continuing to reassert control over ISIL-held territories will help damage the organization's brand and dispel its myth of invincibility. Furthermore, as ISIL comes under more pressure, its ability to govern and control the population will also decline, and with that, potentially, its ability to raise money.

As territory is reclaimed from ISIL, much of the counter-ISIL finance mission will need to rely upon law enforcement tools rather than strictly military ones to address ISIL's persistent extortion and taxation revenues. This suggests a need to invest more resources in training Iraqi and other law enforcement entities.

ISIL has so far avoided relying on external actors for financing, but this trend may not continue indefinitely. Traditional counterterrorism financing tools must continue to keep the group isolated from deep-pocket donors. The coalition should continue to monitor financial flows into ISIL-held territory to see if changes occur and particularly watch for financial flows from countries where wealthy individuals have historically funded jihadist causes, such as Saudi Arabia, Kuwait, and Qatar.

Regardless of the next steps in the war against ISIL, workshop participants overwhelmingly agreed that addressing the core grievances and underlying structural factors that led to the rise of ISIL must be an important component of the comprehensive coalition response. This line of effort is fundamentally based upon diplomacy, both in terms of working toward a negotiated settlement in Syria and exerting leverage over the Iraqi government to make a more earnest attempt at easing the sectarianism of Iraqi politics. Military victory alone will not achieve this. Without steps toward political reconciliation in each country, ISIL will continue to operate among and raise revenues from local Sunni populations even in the absence of territorial control.

¹ Johnston, Shapiro, Shatz, et al., 2016.

Detailed Description of Points Raised in Each Scenario

Chapter Three described areas of collective agreement and significant points of disagreement across all the scenarios. However, workshop participants also raised points specific to each scenario. This appendix describes those points.

Scenario One: Status Quo

The first scenario presented the status quo, in which current counter-ISIL actions continue without any major changes to the military campaign or the actions of the Iraqi and Syrian governments. Specifically, ISIL remains under pressure in areas of both Syria and Iraq but maintains its capital in Raqqa as well as control of significant swaths of territory, including Mosul and areas to its south. It also maintains the ability to conduct terrorist attacks throughout the region.

The discussion of the status quo scenario included several variables that could affect ISIL revenues and expenditures in a nonlinear manner. These included oil prices, the ability of the coalition to continue aggressively targeting bulk cash storage sites, the closed or open nature of ISIL's economy, changes in external funding to ISIL, and operational fluctuations, including the value of the group's brand.

Operational and Financial Adaptation

Under the status quo scenario, although ISIL remains under pressure, it still maintains its capital in Raqqa as well as control of significant swaths of territory throughout both Syria and Iraq. Workshop participants judged ISIL finances would remain relatively strong into the near future and determined that ISIL would continue to spend money at its current rate within the following six months, potentially spending on weapons and fighter salaries in an effort to broaden its support base among local militants not currently under its command.

Workshop participants noted that even if current territorial losses extended into the future, ISIL's ability to adapt would allow it to compensate for continued losses of revenue, at least in the near term. For example, ISIL could increase taxation on goods transiting through its remaining territory. Some participants suggested that there would be no significant change in revenues, while others believed that ISIL could generate even more revenue if the group was able to offset some of the losses recently experienced in its oil portfolio.

In the medium term, some participants believed that ISIL might be tempted to expand its base of operations beyond Iraq and Syria. In turn, continuing territorial losses could also spur ISIL to cut costs by pursuing more modest goals.

About one year out, extortion would remain a viable source of income. Among the participants, those who believed a status quo scenario would lead to a drop in revenues over time surmised that ISIL might asphyxiate itself in a manner similar to AQI in the mid-2000s. In AQI's case, the group was so eager to earn revenue that it committed a series of critical missteps; in the lead up to the Anbar Awakening, its heavy reliance on criminal activities and attempts to co-opt traditional tribal rackets, such as smuggling, led Sunni tribal sheikhs to turn against the group, triggering its severe decline. ISIL is currently pursuing some similar activities.

Further, several participants assessed that if a stalemate existed approximately one year out, the number of foreign fighters would stabilize. To move beyond the impasse, ISIL might need to dedicate greater financial resources to paying additional suicide attackers, using these fighters to complement a more conventional warfare approach. Members of the group pondered whether the use of suicide bombers in insurgent-style attacks could signal a sign of weakness on the part of ISIL. Other possibilities cited by participants included a renewed recruitment drive to replenish personnel lost on the battlefield and the "wild card" option of seeking to acquire WMD to conduct a highly lethal, headline-dominating attack that could increase morale among members and supporters.

Potential Revenue Increases and Changes in Protecting Assets

A major theme that emerged during the discussion of ISIL finances one year out in the status quo scenario was whether or not mechanisms (local or otherwise) would be established that would provide ISIL with new streams of revenue, particularly through taxation. Developments elsewhere in Iraq or Syria, especially in terms of territory and key arterial roads changing hands, could divert trade and commodity transports into ISIL territory, allowing the group to tax trucks transiting through its territory. Although oil may be a source of revenue generation in and of itself, ISIL can also make money by taxing any commodity, such as oil, that has to traverse its territory. If ISIL is able to continue to act like a state, participants felt the group could increase revenue by gaining footholds in territories with high levels of trade and economic activity.

An important variable that participants identified is the amount of targetable bulk cash storage sites left and to what extent ISIL will protect its reserves by storing cash in smaller quantities in more facilities. Beyond one year in the status quo scenario, participants said that ISIL might become more proficient at storing its cash in places that the coalition would have a more difficult time identifying or destroying, such as civil institutions with human shields inside. In addition, ISIL could also seek to establish more normalized relationships with other entities in the region, including external actors (although workshop participants did not identify specific external actors). Participants generally agreed that the longer the status quo remains, the more ISIL will appear to other entities as a fixture in daily life. In effect, simply by not losing, ISIL could win.

A stalemate could serve to help ISIL further solidify its brand in the immediate areas currently under its control. Under a status quo scenario, one point participants raised was that the economy might begin to function as a closed state, with very little movement of goods into or out of the territory controlled by ISIL, depending on what influence other actors are able to exert. A major question on this arrangement's sustainability depends on whether or not the system remains truly closed and the degree of pressure that other actors can exert to alter the situation. Workshop participants said that ISIL's ability to increase its revenue will depend

largely on how effectively it can diversify its sources of revenue over time within the parameters of the status quo scenario.

The group was largely in consensus that given the status quo scenario, ISIL would continue to avoid securing external funding or assistance from state or individual sponsors in the region.

Scenario Two: Negotiated Settlement

The second scenario presents a negotiated settlement in Syria and reconciliation in Iraq. Assad is removed from power and is replaced by a new ruler. A successful, multilateral agreement would include a cease-fire among all parties involved except ISIL and Jabhat al-Nusra. Even with a cease-fire in place, ISIL will continue to control pockets of territory throughout central and eastern Syria, but it will be far more isolated than before. As part of the reconciliation in Iraq, Kurdish parties and what is left of the Sunni political establishment agree to cooperate with the central government, which, in turn, is more solicitous of their demands.

A range of factors could affect the outcome of this scenario. First, ISIL could accelerate its efforts to secure WMD, as it might feel compelled to initiate a groundbreaking attack that would improve morale and stave off further losses. Shifts in expenditures to focus on service provision and shadow governance could be modeled after the Taliban in Afghanistan, and ISIL might spend money in an effort to appeal to disaffected Sunnis while working to sabotage the negotiated settlement.

Operational Adaptation

Participants debated whether the Syrian Army and its supporters could seek to move into Raqqa to attack ISIL's remaining stronghold several months past the completion of a negotiated settlement. One participant estimated that ISIL's footprint could be reduced by as much as 75 percent by this point; accordingly, the group's war chest would be negatively affected as well. However, if ISIL were able to resist Syrian advances and hold on to Raqqa as a headquarters, ISIL would be able to continue marketing its brand, thus ensuring a (considerably reduced) inflow of revenue.

Workshop participants also felt that even if a negotiated settlement pacified parts of Iraq and Syria, ISIL would remain a potent fighting force in areas long held under its control. As an adaptive organization with an intact, if increasingly isolated, headquarters in Raqqa, ISIL could continue the process of changing into a hybrid organization—part terrorist group, part criminal organization. Profit would replace politics as the chief motivation for sizeable parts of the organization.

Highlighting the workshop participants' diverse opinions on ISIL's likely operational adaptation after a negotiated settlement, some discussed the possibility that in an effort to survive, ISIL would accelerate its military activity, even as the group becomes more Syrian in its makeup and its overall numbers diminish. Possible atomization and several rounds of "banner changes" could also lead the group's governance capabilities to deteriorate, directly affecting the amount of money spent on noncombat activities. With less of a need to spend on governance, ISIL could increase its operational attack tempo and recruit new members that are less concerned about the caliphate and more focused on violent attacks throughout the region.

After 18 months, ISIL expenditures under the scenario of a negotiated settlement could lead the group to revert to the “Phase One” (latent and incipient) or “Phase Two” (guerilla warfare) stages of insurgency, influencing how it would spend its money. Furthermore, in a replay of the attacks it unleashed in late June and early July 2016, ISIL could once again focus externally, within the Middle East region (e.g., Istanbul, Amman) or in Europe. If ISIL did choose to follow a retrenchment strategy, it could hoard its existing resources while sustaining a smaller footprint within Syria.

Iraq-Specific Implications

ISIL expenditures following a negotiated settlement could focus on disrupting Iraqi elections in the short term. Another possible course of action, particularly if Iraqi Sunnis are embraced by Baghdad, includes a revolt by Mosul residents and ISIL shifting its operations wholesale into Raqqa. This would centralize expenditures, as ISIL would be forced to consolidate its organization and operations.

Another aspect of political accommodation could be increased recruitment of Iraqi Sunnis into the Iraqi security forces; workshop participants suggested such an increase would increase the quality of those forces.

Changes in Revenue

Losing territory would translate to less revenue, although ISIL would likely seek to increase its kidnapping-for-ransom activities in the areas still under its control. As of July 2016, there were some indications that this was already happening in Anbar Province. ISIL would also seek to increase its extortion-related revenue stream.

Participants noted that ISIL would still retain the ability to extort money within Syria. Revenues from oil could be squeezed if the Syrian government was able to mobilize its forces to retake the Deir Ezzor oilfields from ISIL. Workshop participants spoke about this occurring in the range of six months after the negotiated settlement.

As a result of a negotiated settlement, workshop participants speculated that at some point the ISIL brand would have less cachet, corresponding to a diminution in the ability of the group to earn money. The net effect of a negotiated settlement in Syria would be to squeeze ISIL's hold on territory even further, constricting it to isolated pockets throughout the country, limiting its ability to prey on civilians and other vulnerable groups in society.

Underlying Grievances and Potential for Reconciliation

Within the workshop group, one of the most provocative elements of the scenario was the extent to which rapprochement in Iraq between Sunnis and the Iraqi government would change ISIL's fortunes. A leading expert on the Sunnis was emphatic that if the scenario involved genuine reconciliation on the part of the government of Iraq, ISIL's ability to continue making money in Iraq would be diminished dramatically. The negotiated settlement scenario could potentially lead to a second Sunni Awakening, with Iraqi nationalist groups and former Baathists shifting away from supporting ISIL, further attenuating the group's ability to earn money.

Scenario Three: Total Territory Loss by Combat Means

The third scenario presents a strictly military solution. Through combat operations, ISIL is expelled from Mosul and Raqqa. Assad remains in power in Syria, and the Iraqi government remains fractured and ineffective, but the Kurds are still part of Iraq. Some ISIL elements may remain scattered throughout Syria and Iraq. Although they will not control territory, they will remain capable of conducting terrorist attacks.

Scenario Three as discussed was slightly different than the Scenario Three originally planned by the RAND team. The original scenario included the passage below:

Through combat operations, ISIL is expelled from Fallujah, Mosul, and Raqqa. Assad remains in power in Syria, and the Iraqi government remains fractured and ineffective, but the Kurds are still part of Iraq and Baghdad is at least making earnest efforts toward inclusion of the Sunnis. Some ISIL elements may remain scattered throughout Syria and Iraq, others may return to their countries of origin, and yet others may flee to ISIL strongholds in places like Libya to regroup and continue fighting. While ISIL holds little to no territory, it is capable of periodic terrorist attacks against soft targets in major population centers, such as markets in Baghdad, and of running a variety of criminal schemes to raise money.¹

Before discussion started, participants noted that as written, Scenario Three was too close to Scenario Two because of the phrase about Sunni inclusion. They agreed that in a combat victory scenario, efforts toward reconciliation would probably depend on U.S. or coalition follow-on action and likely would not be carried out independently by the Iraqi government. Accordingly, the RAND team revised Scenario Three to remove the mention of political inclusion of the Sunnis.

The key variables for the third scenario center on ISIL's ability to sustain its operations with a limited budget. With ISIL no longer laying claim to a functioning caliphate, how does the group differentiate itself from Jabhat al-Nusra and al-Qa'ida? Moreover, what entity or entities would emerge to replace ISIL in its lost territories?

Operational Adaptation and Structural Change

According to some workshop members, a total loss of territory by combat means would substantially degrade ISIL senior leadership. ISIL's ability to conduct high-level attacks would be limited, especially if continuing counterterrorism targeting focused on eliminating the remnants of the group's leadership. However, participants believed that ISIL would still be fighting to retake territory in an attempt to reconstitute the organization even a year after its total loss of territory. Participants suggested that territorial loss by combat means would leave ISIL with a dwindling financial surplus to rely on, forcing the group to demonstrate strategic patience to survive.

Tactical adaptations could allow ISIL to coexist in the short term and further entrench itself in the region over the long run. Ultimately, military victory with an underground ISIL

¹ Note that the text of this scenario as cited here was prepared in advance of the June 2016 workshop underlying the findings of this report, and the text remains unchanged from that point in time by design. Therefore, ISIL's territorial losses as of June 2016 were slightly below the estimates cited in the main body of this report, which has since been updated to reflect current conditions, including the recapture of Fallujah.

is not a favorable trade-off for the coalition, but one that regional governments might still be willing to accept, no matter how myopic it might be.

Workshop participants also concluded that even after losing large swaths of territory in both Syria and Iraq, ISIL would still spend money on sustaining its fighters and conducting attacks, especially at the local level, even after 18 months. Furthermore, from an expenditure standpoint, participants argued that after losing territory, ISIL might attempt to shift its spending away from infrastructure, since it will have less territory to control, and focus increasingly on expanding presence in ungoverned territory and conducting hit-and-run attacks.

In the short to medium term, ISIL will require less revenue, since the onus will have shifted from provision of services to military operations. As resource levels change and ISIL focuses on raids and other classic insurgent tactics, its expenditures will be dominated by weapons and ammunition purchases and by the other operational demands of low-intensity conflict.

Significant Changes in Revenues

Workshop participants said that total loss of territory would likely lead to continuing losses of revenue over the medium term, forcing ISIL members to use cash reserves and restricting new sources of funding through extortion. Participants did project that after a total territory loss by combat means, ISIL could experience an increase in revenue from outside sources, although bringing money back into Iraq and Syria would likely pose a challenge.

Approximately a year after total territory loss, ISIL revenue could increase due to criminal activity. If grievances are still widespread within the Sunni populations of both Iraq and Syria, ISIL will still be able to operate and make money.

ISIL Governance

Workshop discussion included statements that if ISIL is able to maintain a semblance of its core organization, it may seek to regroup and expand into northern Syria, where its revenues would be focused on establishing a shadow state. In this part of the country, ISIL would be forced to contend with other rebel groups, including Jabhat al-Nusra, and could be forced to spend more money on governance as it competes with other nonstate actors for political legitimacy.

Current State of ISIL's Finances

This appendix reproduces the background memo on ISIL's finances sent to all workshop participants in advance of the workshop in June 2016. We present this memo unchanged from the content given to participants at the time (except for minor edits to fix typographical and grammatical errors, as well as a minor administrative change) to provide an identical baseline on the state of ISIL's finances at the time of the workshop. Although most factors remain unchanged, ISIL's territorial losses have only worsened since June 2016.

The memo begins here:

Shortly after the Islamic State of Iraq and the Levant (ISIL) stormed onto the world stage in the summer of 2014, overrunning major cities in western and northern Iraq, the group's actions were characterized by superlatives and hyperbole. However, it was not wholly inaccurate to claim, as many did, that after its seizure of resources throughout Iraq, including approximately \$500 million to \$1 billion from various banks, it stood as the richest terrorist group in the world. Today, there are concerted efforts to counter ISIL financial activity. U.S. government agencies, the multilateral Financial Action Task Force (FATF), and the multinational Counter-ISIL Finance Group (CIFG) are among several organizations responsible for preventing ISIL from raising, transferring, and spending money in support of its war aims.

Understanding ISIL finances is important because their revenues allow them to conduct military operations to defend their borders and grab new territory, security operations to quash opposition, media operations to attract new followers, and state-like activities to provide at least some services to their population and present an image of a functioning state. Previous research has shown that the pace of military operations can be tied to expenditure patterns.¹

The multiple counter-ISIL finance efforts lead to an important question: how can policymakers know what effects degrading ISIL finances will have under a variety of scenarios? To consider this, it helps to better understand ISIL finances.

How ISIL Makes its Money

One of the reasons ISIL has been so successful in financing its organization has been the group's ability to earn vast sums of income from numerous revenue streams. To date, two sources of revenue in particular have provided ISIL with the lion's share of its war chest: oil

¹ Bahney, Shatz, Ganier, et al., 2010.

and taxation, the latter of which includes what we would more normally consider extortion. Overall revenues for 2015 have been estimated to range from about \$1 billion to \$2.4 billion.²

Oil

A significant portion of the money raised by ISIL came from the group's capture of key oil fields and refineries in northeastern Syria as well as parts of Northern Iraq between June 2014 and September 2014, in addition to its control of key arterial roads and other centers of commerce.³ By mid-2016, ISIL was still in control of approximately 60 percent of the oil wells in Syria and 5 percent of the oil wells in Iraq.⁴ The money comes from oil, oil products, and gas,⁵ which are sold to a range of buyers, including dealers in Syria and Iraq, who resell onto the local market, and the Assad regime itself.⁶ The majority of oil revenues are from local sales, which are taxed multiple times along the supply chain from oil field to refinery to local markets. The most recent estimates range from \$250 million per year to nearly \$365 million per year.⁷

Taxation and Extortion

ISIL makes more money from oil in Syria than in Iraq, although it remains unclear which country provides it with more money through taxation. ISIL's extortion practices demand between 2.5 and 20 percent of revenue from businesses in its territories and operates other "mafia-style" rackets that help the group earn money. These taxes have included fines collected by the ISIL al-Hisbah, or morality police.⁸ ISIL couches its extortion-related activities in terms of zakat, the traditional Muslim tax on capital or wealth, and jizya, which is traditionally a tax paid by non-Muslims living in Muslim lands and is similar to other forms of "revolutionary" taxes collected by a number of other insurgent groups.⁹

The Iraqi city of Mosul has been a major source of taxation revenue for ISIL, with the bulk of funding coming from commercial, reconstruction, and oil sectors.¹⁰ ISIL also extorts individuals or groups moving back and forth through border crossings into and out of its territory and between Syria and Iraq.¹¹ The group has even gained revenue from the Syrian government, as was the case in February 2013, when ISIL militants seized the Tabqa Dam and sold electricity back to the Assad regime.¹²

² Glaser, 2016b; Center for the Analysis of Terrorism, 2016.

³ Keatinge, 2014b.

⁴ Warrick and Sly, 2016.

⁵ Glaser, 2016a.

⁶ Solomon and Faucon, 2016.

⁷ Torbati, 2016; Faucon and Coker, 2016.

⁸ Johnston, 2016.

⁹ Jonsson, 2014.

¹⁰ Johnston and Bahney, 2014.

¹¹ Hubbard, Krauss, and Schmitt, 2014; Abdulrahim, 2016.

¹² Ahram, 2014. See also Saad and Gladstone, 2013.

Other Sources of Revenue

As with any successful organization, ISIL has a diversified funding portfolio. ISIL controls significant resources within Syria and Iraq's industrial and agricultural sectors. And although access to state-owned banks in northern and western Iraq has been mostly curtailed, the heists ISIL did conduct dating back to 2014 provided the organization with a substantial bankroll to fund its nascent operational and organizational needs, on the order of at least \$500 million.¹³ ISIL has also earned money through kidnapping for ransom (KFR), estimated at \$20 million to \$45 million in 2015 by the U.S. Treasury; the sale of antiquities; exchange rate arbitrage through participation indirectly with exchange houses and banks participating in the Central Bank of Iraq's currency auctions, in which dollars can be bought at below-market rates and then sold at market rates; and seemingly banal activities like running fish farms and selling used automobiles. To date, ISIL has maintained a minimal reliance on foreign donors, although accusations have surfaced of wealthy sympathizers and individuals from Qatar and Kuwait donating money to the group.¹⁴

How Much Money Does ISIL Make?

There is no single agreed upon source for how much money ISIL makes. Assistant Secretary Daniel L. Glaser did note in comments from February that ISIL's revenue from oil had been halved, from \$500 million in 2015 to approximately \$250 million.¹⁵ Even with that decrease in revenue from oil, ISIL still may have earned \$350 million per year from extortion.¹⁶ It is believed that ISIL has looted over \$1 billion from bank vaults across Syria and Iraq, although as will be discussed below, substantial portions of ISIL bulk cash reserves may have been decimated by Coalition airstrikes over the past year.¹⁷ Figures from IHS assert that ISIL's monthly revenue, overall, has been diminished by as much as 30 percent over the past year, from roughly \$80 million per month to \$56 million per month (equivalent to \$960 million per year and \$672 million per year, respectively). This includes a 26 percent drop in revenue earned from oil and gas, a 23 percent drop in revenue earned from taxation and extortion, and a 67 percent drop in revenue earned from sources listed as "other," which IHS lists as drug smuggling, sale of electricity, and donations.¹⁸ Likewise, CJTF-OIR has said that Tidal Wave II air operations, starting in October, reduced ISIL's oil production from 45,000 barrels per day to 34,000 barrels per day, a 24 percent decrease. IHS also claims that 43 percent of ISIL's overall revenue comes from oil, while 50 percent comes from taxation and extortion, which seems to be close to the yearly figured offered by Glaser of \$250 million and \$360 million, respectively.

¹³ Glaser, 2016b.

¹⁴ Bronstein and Griffin, 2014.

¹⁵ Glaser, 2016a.

¹⁶ Glaser, 2016b. Note that Glaser has also been cited as saying that ISIL earned \$360 million, rather than \$350 million, annually from extortion and taxation (Torbat, 2016).

¹⁷ Rosenberg, Cooper and Kulish, 2016.

¹⁸ IHS Inc., 2016.

How ISIL Spends its Money

ISIL spends its money similar to the way other terrorist and insurgent groups do. Some of its money goes to paying for its fighters' salaries, some goes for weapons procurement, and some is earmarked for maintaining the vast infrastructure of its caliphate and the provision of basic services for those living within the territory it controls. Details are hard to come by, but there have been several credible reports, especially in the *Financial Times* and *New York Times*.¹⁹ The rest of this section draws from those accounts.

The group has a central budget in Mosul as well as regional budgets below the central level. Reports consistently say that the majority of the spending supports the war effort. A *Financial Times* report noted that monthly expenses included \$20 million for the core fighting force, \$15 million to \$20 million for auxiliaries and local fighters, tens of millions on munitions, and \$10 million to \$15 million for its security sections. The report noted that at one point, compensation amounted to \$600 million per year, about two-thirds of the group's expenditures at that time.²⁰

Reports of salaries have varied. One report held that in the summer of 2015, ISIL was paying members \$100 monthly, with \$100 extra per parent and \$40 per sibling.²¹ However, more recent documents have put those amounts at \$50 per fighter, wives, and sex slaves, and \$35 for other dependents.²² Other reports indicated that skilled workers received more, at least at one point. For example, an oil field technician reported receiving \$675 per month, up from an initial \$450, well above his \$150 Syrian government salary.²³

At its peak of power in the summer of 2015, it appeared that the Islamic State was conducting public works, such as fixing power lines, digging sewer systems, and painting sidewalks, and running a bus service from Syria to Iraq. They also conducted regulatory functions, such as ensuring the safety of food in markets. It was also running schools and hospitals, although the quality of those services was presumably low (for example, the curriculum in school was not exactly designed to help people navigate a modern economy or engage in critical thinking). In addition, the provision of justice has been a constant, although a harsh one.²⁴

By December 2015 and into 2016, it appeared that many of the services had slowed and been eliminated, and that maintenance was not being done. The National Hospital in Raqqa was essentially closed because most doctors had fled. Fighter pay was reported to have been cut by 50 percent.²⁵ People who had left Islamic State territory said that the group's promises had not been kept.

Change Over Time

Countering ISIL's finances is one of several main lines of effort for the Coalition. Under the auspices of Operation Tidal Wave II, Coalition airstrikes have reduced ISIL oil revenues by

¹⁹ Jones and Solomon, 2015; Hubbard, 2015a; Hubbard, 2016b.

²⁰ Jones and Solomon, 2015.

²¹ Hubbard, 2015a.

²² al-Tamimi, 2016.

²³ Hubbard, 2015a.

²⁴ Hubbard, 2015a.

²⁵ Nicks, 2016.

between 30 to 50 percent. Prior to the operation, the group was making roughly \$40 million per month.²⁶ Within this line of effort, the focus has remained on directly targeting the oil and gas supply chain. Separate lines of effort include attacking cash storage sites, eliminating high-value targets critical to ISIL financial and logistical operations, and capitalizing upon several other important variables, including economic downturns in Syria and Iraq. The low price of oil globally might have some impact as well, in addition to ISIL's continued loss of territory. In some areas where ISIL is losing territory, it has adopted a scorched earth strategy and destroyed gas field installations as it retreats.²⁷ Territorial losses have been important because more territory means more people and businesses that can be taxed. Over the past year, ISIL has lost approximately 40 percent of its territory.²⁸ Iraqi forces have retaken the northern city of Baiji and the Anbar city of Ramadi, and are likely to take Fallujah soon. Kurdish and Yazidi forces have driven Islamic State fighters out of the northern city of Sinjar. Iraqi forces are in the process of gearing up for an eventual Mosul offensive.

Disruption of the Oil and Gas Supply Chain

The targeting of ISIL's oil and natural gas supply chain includes airstrikes against oil fields, refineries, and tanker trucks. To date, the coalition has destroyed hundreds of trucks, disrupted fuel supply lines across and outside of ISIL territory, and hit key infrastructure at oil fields and other oil production sites. Overall, this has diminished ISIL's capability to sell oil and the capacity of ISIL and purchasers to make and sell refined products such as gasoline.

Turkey has finally increased its efforts to stop the flow of men and materiel crossing its borders, thereby restricting ISIL's access to the black market.²⁹ Securing the border is a Herculean task, but one the Turks seem more firmly committed to in the wake of recent terrorist attacks in some of their major cities. While the border will likely never be fully secure, more earnest efforts to deploy military and police along the border have clearly been helpful in deterring smugglers from moving contraband back and forth.

Bulk Cash Targeting

In addition to attacking ISIL's oil and natural gas supply chain, airstrikes have also targeted sites in Iraq where ISIL stores its cash. Two airstrikes in January 2016 in Mosul destroyed an uncertain amount of money, while four more airstrikes in February hit cash storage and distribution facilities; estimates have ranged from tens of millions of dollars to a billion dollars, although all estimates are highly uncertain.³⁰ Further attacks on cash storage sites have occurred since March 2016.

Airstrikes have successfully targeted important individuals, killing a number of high-ranking financial officials, including two of the group's finance ministers, Abu Saleh in November 2015 and Haji Imam in March 2016 (although Haji Imam was more of an operational official than a finance official), and an oil minister, Abu Sayyaf, the year prior. The airstrikes on bulk cash sites, finance distribution, and tax collection centers are a complement to cyber

²⁶ Johnston, 2016.

²⁷ Burgess, 2016.

²⁸ Warrick and Sly, 2016.

²⁹ Albayrak and Ballout, 2016.

³⁰ Johnston, 2016.

reconnaissance and operations the U.S. is conducting against ISIL financial assets.³¹ In turn, financial intelligence has been a major source of information beyond just finances and extends to relationships between ISIL personnel, pattern of life analysis, foreign fighter movements, and sources of resource supply and re-supply.³² The attacks on cash storage depots have caused the group to start selling off some of its valuable assets, including vehicles.³³ For those vehicles it still does have, ISIL has been forced to ration fuel.³⁴

Decreasing Liquidity

A relatively new coalition effort is underway to decrease liquidity into ISIL held territory. By the summer of 2015, the government of Iraq decided to ban and held in escrow the distribution of government salaries into ISIL held territories; ISIL had been taxing these salaries as a source of revenue. Before this decision was taken, Iraq was paying approximately \$170 million per month in 2015, or the equivalent of \$2 billion.³⁵ Furthermore, Iraq has begun to prohibit bank branches in cities and towns held by ISIL from making international transfers, instead ordering all requests to be routed through the central bank in Baghdad, where they can, in theory, be intercepted and stopped. Treasury, in cooperation with the Central Bank of Iraq, is working to prevent ISIL from accessing the international financial system. As such, 90 bank branches within ISIL held territory were cut off from both the international and the Iraqi banking systems and 150 exchange houses have been “named and shamed” and banned from participation in the Central Bank of Iraq dollar auctions. As the group remains constrained from accessing the banking system both locally and regionally, it will have to continue to store its cash in warehouses and vaults, which are increasingly vulnerable to Coalition airstrikes.³⁶ Furthermore, if ISIL is blocked from accessing exchange houses and currency auctions, this will limit its ability to procure U.S. dollars, in turn denying the group revenue it could potentially earn from exchange rate arbitrage.

On the multilateral front, the Counter-ISIL Finance Group (CIFG), co-led by Italy, Saudi Arabia, and the United States and currently comprised of 37 member states and organizations, is tasked with preventing ISIL from using the international financial system, including unregulated money remitters; countering ISIL's extortion and exploitation of economic assets and resources; denying ISIL external funding; and preventing ISIL from providing financial or material support to foreign affiliates.³⁷ The Financial Action Task Force is the intergovernmental standard setting body for anti-money laundering and countering the financing of terrorism and is working with the CIFG to strengthen the international financial system to combat the threat posed by ISIL and terrorist financing more broadly.³⁸

³¹ Sanger, 2016.

³² Windrem and Arkin, 2016.

³³ Gaffey, 2016; BBC News, 2016.

³⁴ Michaels, 2016b.

³⁵ Glaser, 2016a.

³⁶ Michaels, 2016a.

³⁷ U.S. Department of State, 2015.

³⁸ Financial Action Task Force, 2016.

In addition, the United States and Iraq established the Bilateral Commission to Counter Terrorist Financing, focused on information and intelligence exchanges, the United States has sanctioned 30 ISIL-linked senior leaders, financiers, foreign terrorist fighter facilitators, and ISIL branches, and the United Nations passed UNSCR 2253, which builds upon the existing al-Qa'ida sanctions regime and seeks to cement multilateral cooperation to counter ISIL financing.

Will ISIL Be Able to Weather the Storm Financially?

ISIL is resilient – some might say regenerative.³⁹ Its ability to mitigate the current onslaught of coalition efforts geared toward countering its ability to raise revenue is directly related to several factors. First, ISIL maintains a penchant for retaining technical expertise from previous government and private sector regimes (the corporate oil structures established by Abu Sayyaf have remained largely intact), promotes limited state ownership of industry beyond regulatory and taxation roles, and boasts an ability to balance expenditures and revenues (debits and credits).⁴⁰ At various points, however, ISIL has controlled as many as five important cement plants across both Iraq and Syria. Phosphate mines and agriculture constitute other territorially-based sources of revenue.⁴¹ Unlike al-Qa'ida, ISIL does not rely on donations as a major source of revenue and so is less susceptible to traditional sanctions enforced by Treasury. The sheer volume of money initially accumulated by ISIL is more than any group in modern history, which would certainly insulate its current losses (at least for a while) and allow the group to remain self-reliant and financially autonomous as it deals with ongoing austerity measures.⁴² In addition, past behavior when it was a clandestine group involved a number of extortion rackets and other fundraising activities that kept the group functioning. At those times, it was able to cut expenses as well. These factors leave the issue of ISIL futures uncertain as it faces greater military and financial pressure.

³⁹ Shatz and Johnston, 2015.

⁴⁰ Johnston, 2016.

⁴¹ Center for the Analysis of Terrorism, 2016, p.13.

⁴² Keatinge, 2014a.

Bibliography

- Abdulrahim, Raja, "In Syria's Mangled Economy, Truckers Stitch Together Warring Regions," *Wall Street Journal*, May 24, 2016. As of December 9, 2016:
<http://www.wsj.com/articles/in-syrias-mangled-economy-truckers-stitch-together-warring-regions-1464106368>
- Adel, Loaa, "ISIS Revenues from Smuggled Oil Decline After Sharqat Liberation," *Iraqi News*, September 24, 2016. As of October 22, 2016:
<http://www.iraqnews.com/iraq-war/isis-revenues-from-smuggled-oil-decline-after-sharqat-liberation/>
- Albayrak, Ayla, and Dana Ballout, "U.S., Turkey Step Up Border Campaign Against Islamic State," *Wall Street Journal*, April 26, 2016. As of December 9, 2016:
<http://www.wsj.com/articles/u-s-turkey-step-up-border-campaign-against-islamic-state-1461684454>
- Ahram, Ariel, "The Dangerous Mixture of Oil and Water in Iraq," *Political Violence @ a Glance*, August 18, 2014. As of December 9, 2016:
<http://politicalviolenceataglance.org/2014/08/18/the-dangerous-mixture-of-oil-and-water-in-iraq/>
- Bahney, Benjamin, Howard J. Shatz, Carroll Ganier, Renny McPherson, and Barbara Sude, with Sara Beth Elson and Ghassan Schbley, *An Economic Analysis of the Financial Records of al-Qa'ida in Iraq*, MG-1026-OSD, Santa Monica, Calif.: RAND Corporation, 2010. As of December 9, 2016:
<http://www.rand.org/pubs/monographs/MG1026.html>
- BBC News, "Islamic State: Up to \$800m of Funds 'Destroyed by Strikes,'" April 26, 2016. As of December 9, 2016:
<http://www.bbc.com/news/world-middle-east-36145301>
- Bronstein, Scott, and Drew Griffin, "Self-Funded and Deep-Rooted: How ISIS Makes its Millions," CNN.com, October 7, 2014. As of December 9, 2016:
<http://www.cnn.com/2014/10/06/world/meast/isis-funding/>
- Burgess, James, "Scorched Earth Strategy: ISIS Blows Up Several Al Shaer Gas Field Installations," Oilprice.com, May 17, 2016. As of December 9, 2016:
<http://oilprice.com/Latest-Energy-News/World-News/Scorched-Earth-Strategy-ISIS-Blows-Up-Several-Al-Shaer-Gas-Field-Installations.html>
- Callimachi, Rukmini, and Lorenzo Tondo, "Scaling Up a Drug Trade, Straight Through ISIS Turf," *New York Times*, September 13, 2016. As of December 9, 2016:
http://www.nytimes.com/2016/09/14/world/europe/italy-morocco-isis-drug-trade.html?_r=0
- Center for the Analysis of Terrorism, *ISIS Financing 2015*, Paris, May 2016. As of December 9, 2016:
<http://cat-int.org/wp-content/uploads/2016/06/ISIS-Financing-2015-Report.pdf>
- Cohen, Eliot, Conrad Crane, Jan Horvath, and John Nagl, "Principles, Imperatives, and Paradoxes of Counterinsurgency," *Military Review*, March-April 2006, pp. 49–53. As of October 22, 2016:
<http://www.au.af.mil/au/awc/awcgate/milreview/cohen.pdf>
- Daraghi, Borzou, "Biggest Bank Robbery that 'Never Happened'—\$400m ISIS Heist," *Financial Times*, July 17, 2014. As of November 3, 2016: <https://www.ft.com/content/0378d4f4-0c28-11e4-9080-00144feabdc0>
- Financial Action Task Force, *Financing of the Terrorist Organisation Islamic State in Iraq and the Levant (ISIL)*, Paris, 2015. As of October 19, 2016:
<http://www.fatf-gafi.org/topics/methodsandtrends/documents/financing-of-terrorist-organisation-isil.html>

- , “FATF-CIFG Communiqué,” February 2016. As of October 19, 2016:
<http://www.fatf-gafi.org/publications/fatfgeneral/documents/fatf-cifg-communique-feb-2016.html>
- Faucon, Benoit, and Margaret Coker, “The Rise and Deadly Fall of Islamic State’s Oil Tycoon,” *Wall Street Journal*, April 24, 2016. As of June 16, 2016:
<http://www.wsj.com/articles/the-rise-and-deadly-fall-of-islamic-states-oil-tycoon-1461522313>
- Gaffey, Conor, “Up to \$800 Million of ISIS Cash Has Been Destroyed: U.S. Official,” *Newsweek*, April 27, 2016. As of December 9, 2016:
<http://www.newsweek.com/800-million-isis-cash-destroyed-us-official-452870>
- Glaser, Daniel L., remarks delivered at Chatham House, London, February 8, 2016a.
- , testimony before the House Committee on Foreign Affairs Subcommittee on Terrorism, Nonproliferation, and Trade and House Committee on Armed Services Subcommittee on Emerging Threats and Capabilities, June 9, 2016b. As of June 13, 2016:
<https://www.treasury.gov/press-center/press-releases/Pages/jl0486.aspx>
- Hubbard, Ben, “Offering Services, ISIS Digs in Deeper into Seized Territories,” *New York Times*, June 16, 2015a. As of June 14, 2016:
<http://www.nytimes.com/2015/06/17/world/middleeast/offering-services-isis-ensconces-itself-in-seized-territories.html>
- , “ISIS Promise of Statehood Falling Far Short, Ex-Residents Say,” *New York Times*, December 1, 2015b. As of June 14, 2016: http://www.nytimes.com/2015/12/02/world/middleeast/isis-promise-of-statehood-falling-far-short-ex-residents-say.html?_r=0
- Hubbard, Ben, Clifford Krauss, and Eric Schmitt, “Rebels in Syria Claim Control of Resources,” *New York Times*, January 28, 2014. As of December 9, 2016:
<https://www.nytimes.com/2014/01/29/world/middleeast/rebels-in-syria-claim-control-of-resources.html>
- Hudson, John, “Top U.S. Official: Islamic State Has Lost 47 Percent of its Territory in Iraq,” *Foreign Policy*, June 28, 2016. As of December 9, 2016:
<http://foreignpolicy.com/2016/06/28/top-u-s-official-islamic-state-has-lost-47-percent-of-its-territory-in-iraq/>
- IHS Inc., “Islamic State Revenue Drops to \$56 Million, IHS Says,” April 18, 2016. As of November 16, 2016: <http://news.ihsmarket.com/press-release/aerospace-defense-security/islamic-state-monthly-revenue-drops-56-million-ihs-says>
- “ISIS No Longer Controls Any Iraqi Oil,” *Rudaw*, September 27, 2016. As of October 22, 2016:
<http://rudaw.net/english/kurdistan/270920164>
- Johnston, Patrick B., “Islamic State’s Money Problems,” *USA Today*, March 4, 2016. As of December 9, 2016:
<http://www.usatoday.com/story/opinion/2016/03/04/islamic-state-airstrikes-oil-prices-taxation-extortion-finances-syria-iraq-column/81207344/>
- Johnston, Patrick B., and Benjamin Bahney, “Hitting ISIS Where It Hurts: Disrupt ISIS’s Cash Flow in Iraq,” *New York Times*, August 13, 2014. As of December 9, 2016:
<https://www.nytimes.com/2014/08/14/opinion/disrupt-isis-cash-flow-in-iraq.html>
- Johnston, Patrick B., Jacob N. Shapiro, Howard J. Shatz, Benjamin Bahney, Danielle F. Jung, Patrick Ryan, and Jonathan Wallace, *Foundations of the Islamic State: Management, Money, and Terror in Iraq, 2005–2010*, RR-1192-DARPA, Santa Monica, Calif.: RAND Corporation, 2016. As of December 9, 2016:
http://www.rand.org/pubs/research_reports/RR1192.html
- Jones, Sam, and Erika Solomon, “ISIS Inc.: Jihadis Fund War Machine but Squeeze ‘Citizens,’” *Financial Times*, December 15, 2015. As of December 9, 2016:
<https://www.ft.com/content/2ef519a6-a23d-11e5-bc70-7ff6d4fd203a>
- Jonsson, Michael, “Following the Money: Financing the Territorial Expansion of Islamist Insurgents in Syria,” Swedish Defense Research Agency, FOI Memo #4947, May 2014.
- Keatinge, Tom, “The Importance of Financing in Enabling and Sustaining the Conflict in Syria (and Beyond),” *Perspectives on Terrorism*, Vol. 8, No. 4, August 2014a.

- , “How the Islamic State Sustains Itself: The Importance of the War Economy in Syria and Iraq,” *RUSI Analysis*, August 29, 2014b. As of December 9, 2016:
<https://rusi.org/commentary/how-islamic-state-sustains-itself-importance-war-economy-syria-and-iraq>
- Liepmann, Andrew and Colin P. Clarke, “Demystifying the Islamic State,” *U.S. News & World Report*, August 23, 2016.
- Michaels, Jim, “Air Campaign Shifts to ISIL’s Cash and Oil,” *USA Today*, April 17, 2016a. As of December 9, 2016:
<http://www.usatoday.com/story/news/world/2016/04/17/air-campaign-shifts-isils-cash-and-oil/83157118/>
- , “U.S.-Led Coalition Blows Up \$500 Million in Islamic State Cash,” *USA Today*, April 21, 2016b. As of December 9, 2016:
<http://www.usatoday.com/story/news/world/2016/04/21/united-states-coalition-blows-up-cash-islamic-state/83346102/>
- Nicks, Denver, “ISIS Fighters Just Got a Huge Pay Cut,” *Money*, January 19, 2016. As of December 13, 2016:
<http://time.com/money/4185726/isis-fighters-pay-cut/>
- Rosenberg, Matthew, Helene Cooper, and Nicholas Kulish, “ISIS Expands Reach Despite Military and Financial Setbacks,” *New York Times*, April 12, 2016. As of December 9, 2016:
<http://www.nytimes.com/2016/04/13/world/middleeast/isis-iraq-syria.html>
- Saad, Hwaida, and Rick Gladstone, “Syrian Insurgents Claim to Control Large Hydropower Dam,” *New York Times*, February 11, 2013. As of December 9, 2016:
<http://www.nytimes.com/2013/02/12/world/middleeast/syrian-insurgents-claim-to-control-large-hydropower-dam.html>
- Salama, Vivian, “As Territory Shrinks, ISIS Looks for New Money Sources,” *Seattle Times*, October 19, 2016. As of October 22, 2016:
<http://www.seattletimes.com/nation-world/as-territory-shrinks-is-group-looks-for-new-money-sources/>
- Sanger, David E., “U.S. Cyberattacks Target ISIS in a New Line of Combat,” *The New York Times*, April 24, 2016. As of October 22, 2016:
http://www.nytimes.com/2016/04/25/us/politics/us-directs-cyberweapons-at-isis-for-first-time.html?_r=0
- Shatz, Howard J., and Erin-Elizabeth Johnston, *The Islamic State We Knew: Insights Before the Resurgence and Their Implications*, RR-1267-OSD, Santa Monica, Calif.: RAND Corporation, 2015. As of December 9, 2016:
http://www.rand.org/pubs/research_reports/RR1267.html
- Solomon, Jay, and Benoit Faucon, “An Energy Mogul Becomes Entangled with Islamic State,” *Wall Street Journal*, May 8, 2016. As of December 9, 2016:
<http://www.wsj.com/articles/an-energy-mogul-becomes-entangled-with-islamic-state-1462734922>
- Strack, Columb, “Islamic State Caliphate Shrinks A Further 12 Percent in 2016,” *IHS Jane’s 360*, July 11, 2016. As of December 9, 2016:
<http://www.janes.com/article/62153/islamic-state-caliphate-shrinks-a-further-12-per-cent-in-2016>
- Strange, Hannah, “Islamic State Leader Abu Bakr al-Baghdadi Addresses Muslims in Mosul,” *The Telegraph*, July 5, 2014. As of October 22, 2016:
<http://www.telegraph.co.uk/news/worldnews/middleeast/iraq/10948480/Islamic-State-leader-Abu-Bakr-al-Baghdadi-addresses-Muslims-in-Mosul.html>
- Szubin, Adam, “Remarks of Acting Under Secretary Adam Szubin on Countering the Financing of Terrorism at The Paul H. Nitze School of Advanced International Studies,” U.S. Treasury, October 20, 2016. As of October 22, 2016:
<https://www.treasury.gov/press-center/press-releases/Pages/jl0590.aspx>
- al-Tamimi, Aymenn, “A Caliphate Under Strain: The Documentary Evidence,” *CTC Sentinel*, Vol. 9, Issue 4, April 2016, pp. 1–8.
- Torbati, Yeganeh, “Islamic State Yearly Oil Revenue Halved to \$250 million: U.S. Official,” Reuters, May 11, 2016. As of June 16, 2016:
<http://www.reuters.com/article/us-mideast-crisis-islamic-state-revenue-idUSKCN0Y22CW>

U.S. Department of State, "Establishment of the Counter-ISIL Finance Group in Rome, Italy," media note, March 20, 2015.

Warrick, Joby, and Liz Sly, "U.S.-Led Strikes Putting a Financial Squeeze on the Islamic State," *Washington Post*, April 2, 2016.

Windrem, Robert, and William M. Arkin, "How to Beat ISIS: Blow Up the Money," *NBC News*, May 1, 2016. As of October 19, 2016:

<http://www.nbcnews.com/storyline/isis-terror/how-beat-isis-blow-money-n564956>

Woertz, Eckart and Hadi Jaafar, "It's Not Funded Just By Oil and Looting. How the Islamic State Uses Agriculture," *Washington Post*, September 27, 2016. As of December 9, 2016:

https://www.washingtonpost.com/news/monkey-cage/wp/2016/09/27/its-not-just-funded-by-oil-and-looting-how-the-islamic-state-uses-agriculture/?utm_term=.31eeb695e2aa

In June 2016, RAND held a small workshop on Islamic State of Iraq and the Levant (ISIL) finances. Participants in the workshop included professionals with expertise in the Middle East, ISIL, counterterrorism, and economics. This report describes the likely evolution of ISIL finances under three specific scenarios: a continuation of the current campaign, a negotiated settlement in Syria and political accommodation in Iraq, and military victory without negotiated settlement or political accommodation. The discussion of potential consequences for ISIL across these three contrasting scenarios offered a number of implications for the counter-ISIL effort. These included taking actions to counter specific means of raising money within ISIL territory, using financial information to damage the group, degrading its ability to raise money across its territory, and ensuring that it does not shift to raising money from beyond its territory.



NATIONAL SECURITY RESEARCH DIVISION

www.rand.org

\$17.00

ISBN-10 0-8330-9739-3
ISBN-13 978-0-8330-9739-2

