

Munich Security Report 2016

Boundless Crises, Reckless Spoilers, Helpless Guardians



Preface

Last year, the Munich Security Conference (MSC) published – for the first time – the Munich Security Report, a digest compiling some of the most interesting figures and thought-provoking analyses in key areas of international security. We were very encouraged by how well this inaugural effort was received. The report has been quoted and referenced by national and international media and has found distribution among decision makers, security professionals, and the interested public well beyond the circle of MSC participants. Motivated by this response, we have again set out to compile the most insightful analyses, data, maps, and other materials in order to illuminate major international security challenges. Two weeks ahead of the 52nd edition of the Munich Security Conference, we are pleased to present the results.

A year ago, we observed that international and regional orders were at significant risk of disintegrating. Since then, this risk has only further increased. There is, I am afraid, ample reason for pessimism as we enter 2016. Today's conflicts are characterized by a scale and gravity unprecedented since the end of the Cold War. Traditional guardians of order are more and more overwhelmed, while others have not stepped up – or have acted as spoilers instead. Considering the landmark deal with Iran and the Paris climate agreement, there is room for cautious optimism that major diplomatic achievements are still possible. But managing crises that have increasingly become boundless and borderless remains an enormous challenge and is likely to get even more complicated in the future.

With this report, we hope to provide an easy-to-consume companion that helps bring light into this thickening fog of disorder and a useful conversation starter for the debates in Munich and beyond. The report is not meant to show a comprehensive picture of the state of affairs in international security, but we think it does provide food for thought in critical areas. I take this opportunity to thank the numerous renowned institutions, friends, and partners who allowed us to rely on their research and data in our report. Without their support, the document you are holding in your hands would not have been possible. We welcome your feedback to msr@securityconference.de. I hope you will find this a thought-provoking and stimulating read.


Sincerely yours,



Wolfgang Ischinger
Chairman of the Munich Security Conference

In the report, we acknowledge partners who collected data specifically for the MSR or who provided data before their official release by printing their logos along with their respective charts, maps, or tables.

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Boundless Crises, Reckless Spoilers, Helpless Guardians

“We have to realize that the post-Cold War era is over. We’re in something else now. Peace, love, Woodstock, Kumbaya, let’s dramatically slash defense spending and enjoy the peace dividend — that’s all over.”¹⁰

TOOMAS HENDRIK ILVES,
6 DECEMBER 2015

Speaking about the EU’s inadequate response to the migrant crisis, the rise of nationalism in Europe, and Russia’s aggressiveness, Estonian President Toomas Hendrik Ilves recently invoked the ghosts of a horrible past. “We’re entering ‘a low dishonest decade,’” Ilves said, referencing W.H. Auden’s “September 1, 1939” poem.¹ The world, especially as seen from the West, may indeed be in its worst shape since the end of the Cold War. Overwhelmed, sometimes helpless guardians are faced with boundless crises and empowered, reckless spoilers.

The conflicts and crises that most preoccupy the world transcend and put into question borders and boundaries to a stunning extent. Chief among these is the war in Syria (and Iraq) with its manifold consequences and implications – from Europe’s struggle to find a common solution to the refugee influx to the overall dissolution of political order throughout the Middle East.

For reasons that are both structural – a more complicated international system – and self-inflicted – an initial neglect of emerging crises – the traditional guardians of a liberal international order seem to believe less and less in their ability to shape events. They are faced with a growing number of spoilers – some simply emboldened, others even reckless – who further destabilize fragmenting orders. What is more, while the risk of major interstate war may still be remote, for the first time since the end of the Cold War, the escalation of violence between major powers cannot be dismissed as an unrealistic nightmare.

To be sure, the past year has seen its share of good news. The part of the global population living in extreme poverty has fallen under 10 percent, to 9.6 percent, from 37 percent just 25 years ago.² Moreover, there were at least two diplomatic breakthroughs with potentially far-reaching implications: First, steered by brilliant diplomacy of the French hosts, the climate talks in Paris led to an agreement that many see as path-breaking and that could prevent the most catastrophic consequences of man-made climate change. Second, the agreement on the Iranian nuclear program, reached by the P5+1 and Iran, prevents both an Iran armed with nuclear weapons and military action against its nuclear facilities. Either one of these two scenarios could have destabilized the Middle East in ways that make today’s turmoil look tame in comparison. But as Richard Haass stressed, with a nod to Woody Allen: “If showing up is 80 percent of life, at least 80 percent of foreign policy is following up.”³ Whether both agreements will be seen as truly historical achievements depends on their implementation and the momentum they provide.

Crises Without Borders

“In many regions war and terror prevail. States disintegrate. For many years we have read about this. [...] But we had not yet sufficiently understood that what happens in Aleppo and Mosul can affect Essen or Stuttgart. We have to deal with that now,” German Chancellor Angela Merkel said in the fall of 2015.⁴ For several years,

“No country can manage on its own to secure a life in peace and prosperity. That is why, in these difficult times above all, we must resist the temptation to revert to acting as nation states. In the 21st century, closing borders is not a sensible option.”¹¹

ANGELA MERKEL,
16 DECEMBER 2015



“I know this is a dangerous time. But that’s not because of diminished American strength or some looming superpower. In today’s world, we’re threatened less by evil empires and more by failing states. [...] And the international system we built after World War II is now struggling to keep pace with this new reality. It’s up to us to help remake that system.”¹²
BARACK OBAMA,
12 JANUARY 2016

European publics and leaders, in particular, were willing to overlook the potential domestic consequences of turmoil in their Eastern and Southern neighborhoods.

“Our task is to promote a ring of well governed countries to the East of the European Union and on the borders of the Mediterranean,” the 2003 EU Security Strategy had argued.⁵ This has turned into a “ring of fire”⁶ instead. The European security and peace order is contested again, and the war in Ukraine remains unresolved. From Libya to Iraq, from Mali to Afghanistan, states are failing. Conflict is increasingly becoming boundless and borderless. The Ebola outbreak in Western Africa provided a glimpse of the consequences a dangerous pandemic could have not only for regional but global stability as well. Global information and communication technologies are used to spread hateful propaganda, while state actors and private hackers abuse the global interconnectedness to their advantage, threatening sensitive public and private information or even critical infrastructure from anywhere across the globe.

With its ample cyber activities and vast network of militants in Europe, the Islamic State strikingly epitomizes these threats. And in two other respects as well, today’s Middle East exemplifies the boundlessness of conflict. The war in Syria has turned into an unconfined regional crisis. In the medium term, it may well put into question existing state borders throughout the Middle East. Secondly, the war in Syria has been the main driver of the global refugee crisis and has made 2015 the year with the most refugees since the end of World War II. This age of forced migration and its implications for refugees as well as host countries is another sad symbol of the unconfined character of today’s conflicts.

But as conflicts are becoming boundless and the limiting effect of borders further decreases, borders are also making a comeback. Since the fall of the Berlin Wall, over 40 countries worldwide have erected fences against more than 60 of their neighbors, with 15 new walls built in 2015 alone.⁷ In Europe, the border-free Schengen area is under threat. And borders changed by force as well as border disputes – from Ukraine to artificial islands in the South China Sea – contribute to a more dangerous security environment.

Helpless Guardians and Reckless Spoilers

Claims of a US retreat may be exaggerated. But in at least two of the defining conflicts of our time – Ukraine and Syria – the US has played a less prominent role than in previous conflicts. The key diplomatic format to resolve the Ukraine crisis – the so-called “Normandy group” – does not include the US. In any major European crisis since the end of World War II, such an absence would have been unthinkable. And in Syria, the US and its European allies stopped short of intervening against the Assad regime although he had crossed the announced “red line” – further underlining that the US dog in that fight is rather small. Critics of international action in Syria, including German voices, argued in 2011 that an intervention would only fuel the conflict and the spread of violence beyond Syria. But in fact, the exact opposite happened: the hands-off approach created the conditions both for a bloody and increasingly complex civil war, and for today’s regional conflagration, including Russian military intervention.

Europe has so far failed to build a credible common foreign and security policy as envisaged by the Treaty of Lisbon, with institutional arrangements for decisive crisis management action. Instead, Brussels continues to be handicapped by multiple major problems: shaky agreement on sanctions against Russia; continuing question marks surrounding Greece and the euro; the threat of “Brexit” and of re-

“The Western-centered world order dominated by the US has made great contributions to human progress and economic growth. But those contributions lie in the past. Now that same order is like an adult in children’s clothes. It is failing to adjust.”¹³
FU YING,
6 JANUARY 2016



“Europe needs more cooperation, integration, risk sharing, and solidarity. Instead, Europeans appear to be embracing nationalism, balkanization, divergence, and disintegration.”¹⁴

NOURIEL ROUBINI,
6 JANUARY 2016

erected borders; and, maybe most importantly, a resurgence of illiberal right-wing nationalism and populism. As Anne Applebaum noted: “If Europe itself becomes dysfunctional, then Europe will be incapable of helping anyone else.”⁸ And then Europe will not be able to play a meaningful global role in the future at all.

China is beginning to get more involved in global issues, but yet has a ways to go. Instead of becoming a “responsible stakeholder” in the liberal international order, Beijing is more likely to focus on parallel structures of international governance, which it can shape according to its own preferences.

Russia under Vladimir Putin has been keen to demonstrate its status as a key global player, but its economy tells a different story. Even after many Normandy format sessions, the durable settlement of the Ukraine conflict envisaged a year ago has not materialized. And in Syria, Putin has demonstrated his determination to play a role in any post-Assad Syrian arrangement, without much regard for the continuing plight of the Syrian population. The good news is that Russia played a constructive role in the nuclear negotiations with Iran, and will hopefully do so again as the Vienna talks on Syria resume in 2016.

In key conflicts today, reckless spoilers have filled the power vacuum resulting from the reluctance or withdrawal of actual or potential guardians. In Afghanistan, the resurgence of the Taliban undermines progress made over more than a decade, prompting Western governments to rethink their withdrawal or reduction plans. In countries such as Libya, Mali, or Yemen, groups of local strongmen and Islamist extremists, many of whom have pledged allegiance to the Islamic State, have blocked progress towards peace or, worse, unleashed more strife.

A Bleak Picture

There is another critical reason why the strategic outlook at the beginning of 2016 is bleak: tensions between some of the most powerful states have risen.

The crisis in Western-Russian relations continues to be serious. And in light of numerous close encounters and military incidents, the risk of unintended escalation is undeniable. “The risk of nuclear weapons use in the Euro-Atlantic region is on the rise – and it is higher than it has ever been since the end of the Cold War,” a report by the Nuclear Threat Initiative found.⁹ In Asia, increasing Chinese assertiveness – most visibly artificially-built Chinese islands in the Pacific – continues to worry its smaller neighbors, who wish for a stronger US role in the region. In the Middle East, relations between Iran and Saudi Arabia could hardly be worse, absent direct military confrontation. Tensions between Turkey and Russia have grown precipitously.

If any of these crises were to escalate to the point of armed conflict, the current challenges we describe in this report may seem manageable compared to a war involving major powers.

In short: in 2016, we are likely to witness a period of growing risks, including of military confrontation, of uncertainty, and of fundamental transformation – the beginning of a more unstable international era. The challenge to leaders and their advisors is an urgent one: how to build – or rebuild – more resilient regional and global orders, and how to promote and empower the institutional arrangements necessary to ensure that the idea of a rules-based global society will not be abandoned.

“Some of the drivers of today’s global drift have been developing for a number of years, and most are widely acknowledged. But what is striking is that these drivers coincide with and feed into each other in ways that severely complicate policy-making.”¹⁵

CHESTER CROCKER,
2015



EURASIA GROUP'S TOP 10 RISKS FOR 2016

Each year, Eurasia Group publishes a list of the top 10 political risk stories for the year ahead. 2015 had more than its share of turmoil, but the world in 2016 is about to become even more volatile.

These are the risks and trends Eurasia Group believes will matter most this year.

- 1 **The hollow alliance:** The transatlantic partnership has been the world's most important alliance for nearly 70 years, but it is now weaker, and less relevant, than at any point in decades. As US and European paths diverge, there will be no more international fireman – and conflicts particularly in the Middle East will be left to rage.
- 2 **Closed Europe:** In 2016, divisions in Europe will reach a critical point as refugees, terrorism, and grassroots political pressures pose an unprecedented challenge to the principles on which the new Europe was founded. P.S. Don't underestimate the risk of Brexit.
- 3 **The China footprint:** Never has a country at China's modest level of economic and political development produced such a powerful global footprint. Recognition that China is a crucial (and unpredictable) lead actor on the world stage will unnerve other international players who are not ready for this and do not know how to respond to it.
- 4 **Islamic State and "friends":** The Islamic State is the world's most powerful terrorist organization, it has attracted followers and imitators from Nigeria to the Philippines, and the international response to its rise will remain inadequate, misdirected, and at cross purposes.
- 5 **Saudi Arabia:** The Saudis face a growing risk of destabilizing discord within the royal family this year, and the kingdom's increasingly isolated status will lead it to act more aggressively across the Middle East. The key source of external Saudi anxiety, Iran, will soon be free of sanctions.
- 6 **The rise of technologists:** A variety of highly influential non-state actors from the world of high tech – from Silicon Valley corporations to hacker groups and retired tech philanthropists – are playing a more direct role in international politics, and governments have yet to figure out how to deal with them.
- 7 **Unpredictable leaders:** Russia's Vladimir Putin and Turkey's Recep Tayyip Erdogan are leaders of an unruly pack that includes Saudi Arabia's Deputy Crown Prince Mohammed bin Salman and to a lesser extent Ukraine's Petro Poroshenko.
- 8 **Brazil:** President Dilma Rousseff is fighting to avoid impeachment, and the country's political and economic crisis will worsen in 2016. If the president survives, her government will not gain the political boost needed to tackle the country's growing fiscal deficit. If she is ousted, an administration led by Vice President Michel Temer will not fare much better.
- 9 **Not enough elections:** Emerging markets underwent a historic cycle of national elections in 2014 and 2015, but this year there will be relatively few opportunities for their voters to use the ballot box to force change. As slower growth and stagnating living standards stoke popular discontent, angry citizens will take to the streets.
- 10 **Turkey:** President Erdogan will now push to replace the country's parliamentary system with a presidential one. He is unlikely to succeed in 2016, but his political aggressiveness will further damage Turkey's already battered business and investment climate.

Source: Eurasia Group¹⁶





Actors





China: Doubling Down?

“We are dissatisfied and ready to criticize. Yet we are not ready to propose a new design. Earlier than we expected, the weight of international responsibilities is falling on Chinese shoulders. We need to come up with more specific ideas, to reassure others and advance our common interests. And we need to get better at communicating with the world.”⁸

FU YING,
6 JANUARY 2016

China is becoming a rule-maker and an institution-builder. But the rules it makes and the institutions it builds are not those of a liberal international order; they are designed to work in parallel to the established architecture.¹ The Asian Infrastructure Investment Bank – joined by many European states but not the US – may be the most prominent example for this, but it is far from the only one.

“Never has a country at China’s modest level of economic and political development produced such a powerful global footprint,” Eurasia Group has observed.² That footprint includes large projects in Latin America and Africa. Its centerpiece is the “One Belt, One Road” strategy which aims at revitalizing the idea of the old “Silk Road” throughout Eurasia by massively upgrading and connecting infrastructures. The economic feasibility of many parts of this strategy is in question, not least because of China’s domestic economic situation.³ But the ambition is clear: With “One Belt, One Road,” an analysis by the Mercator Institute for China Studies finds, the Chinese leadership pursues three main goals: economic diversification, political stability, and the development of a multipolar global order.⁴

In 2015, China has also agreed with Russia to link the Eurasian Economic Union to the new Silk Road initiative. This came on the heels of their bilateral USD 400 billion gas deal. But there are limits to how close their relationship can become. “The Chinese-Russian relationship is a stable strategic partnership and by no means a marriage of convenience,” writes Fu Ying, who chairs the Foreign Affairs Committee of the National People’s Congress. “Nevertheless, China has no interest in a formal alliance with Russia, nor in forming an anti-US or anti-Western bloc of any kind. Rather, Beijing hopes that China and Russia can [offer] a model for how major countries can manage their differences and cooperate in ways that strengthen the international system.”⁵

“The preeminent geo-strategic challenge of this era is not violent Islamic extremists or a resurgent Russia. It is the impact that China’s ascendance will have on the US-led international order.”⁹

GRAHAM ALLISON,
24 SEPTEMBER 2015

Managing differences may become increasingly difficult for what is the most important interstate relationship of the coming decades, between China and the US. Armed conflict between the major “rising power” and the “hegemon” is far from preordained. But heightened rhetoric as well as incidents in the South China Sea – where China has built artificial islands to buttress its territorial claims and rejects the Permanent Court of Arbitration’s authority to rule in a case the Philippines brought against China⁶ – suggest that the relationship may well deteriorate. “China’s words have been about peaceful rise, and about defense,” US Deputy Defense Secretary Bob Work said recently. “But its actions will be the true test of its commitment to peace and stability in the current international order.”⁷ States on the Pacific Rim – many of which maintain close economic relations with China while relying on their security relations with the US – have not yet been forced to choose between the two. And hopefully will not have to do so at all.



IS CHINA BUILDING A PARALLEL ORDER?

Established organizations and mechanisms

Financial & monetary relations

International Monetary Fund	Crisis liquidity provision	BRICS CRA, ASEAN+3 CMIM
World Bank, Asian Development Bank	Long-term financing	AIIB, BRICS bank, new financing vehicles (i.e. Silk Road Fund)
US CHIPS, UK CHAPS, EU Target2	Global payment infrastructures	China International Payment System
Global Financial Centres	Financial services clusters	Shanghai Global Financial Centre
VISA, MasterCard, Moody's, S&P	Credit card networks and credit rating	China Union Pay, Universal Credit Rating Group
US Dollar, Euro transactions	Use of international currencies	RMB Internationalization

Trade & investment

TPP	Regional FTAs	RCEP, Free Trade Area of the Asia-Pacific
TTIP	Mega-regional investment agreements	CN-EU/US investment agreements
Eurasian Economic Union, US Silk Road Strategy	New transport and trade corridors in Eurasia	Silk Road Economic Belt

Dialogue & diplomacy

G7/G8	Core international groupings	BRICS Summits
Asian Regional Forum, EAS, Shangri-La Dialogue	Regional security forums and dialogues	CICA, Shanghai Cooperation Organization, Xiangshan Forum
World Economic Forum, Internet Governance Forum	Global forums and conferences	Bo'ao Forum, World Internet Conference
EU/US-driven regional forums	Sponsored regional cooperation framework	FOCAC, China-CELAC, CEEC 16+1

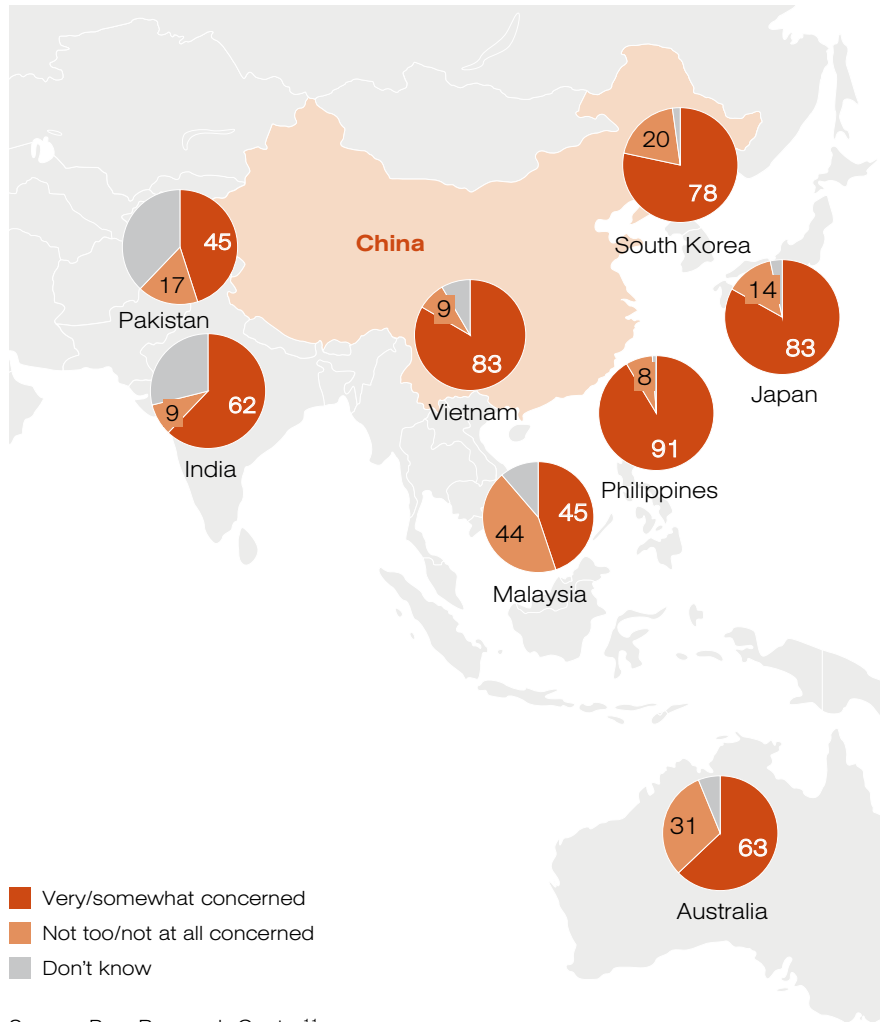
Acronyms: CRA (Contingency Reserve Arrangement), CMIM (Chiang-Mai Initiative Multi-lateralization), AIIB (Asian Infrastructure Investment Bank), RCEP (Regional Comprehensive Economic Partnership), EAS (East Asia Summit), CICA (Conference on Interaction and Confidence Building in Asia), FOCAC (Forum on China-Africa Cooperation), CELAC (Community of Latin American and Caribbean States), CEEC (Central and Eastern Europe Countries).

Source: MERICS¹⁰



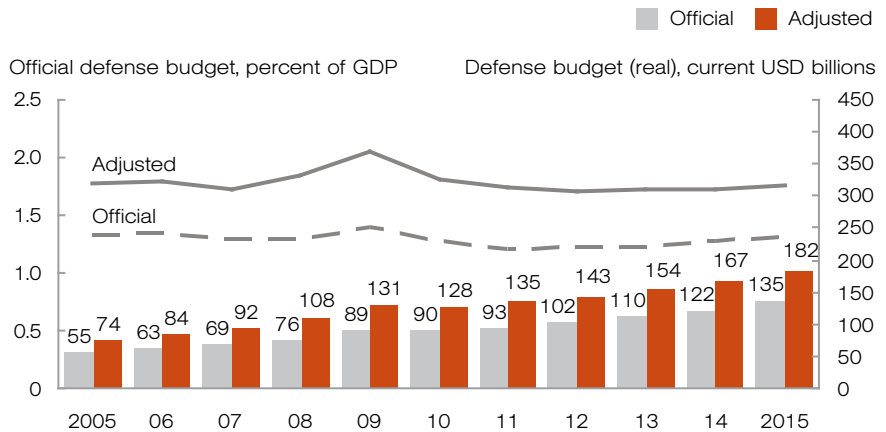
HOW CONCERNED ARE CHINA'S NEIGHBORS ABOUT TERRITORIAL DISPUTES WITH CHINA?

Opinion poll, spring 2015, percent



Source: Pew Research Center¹¹

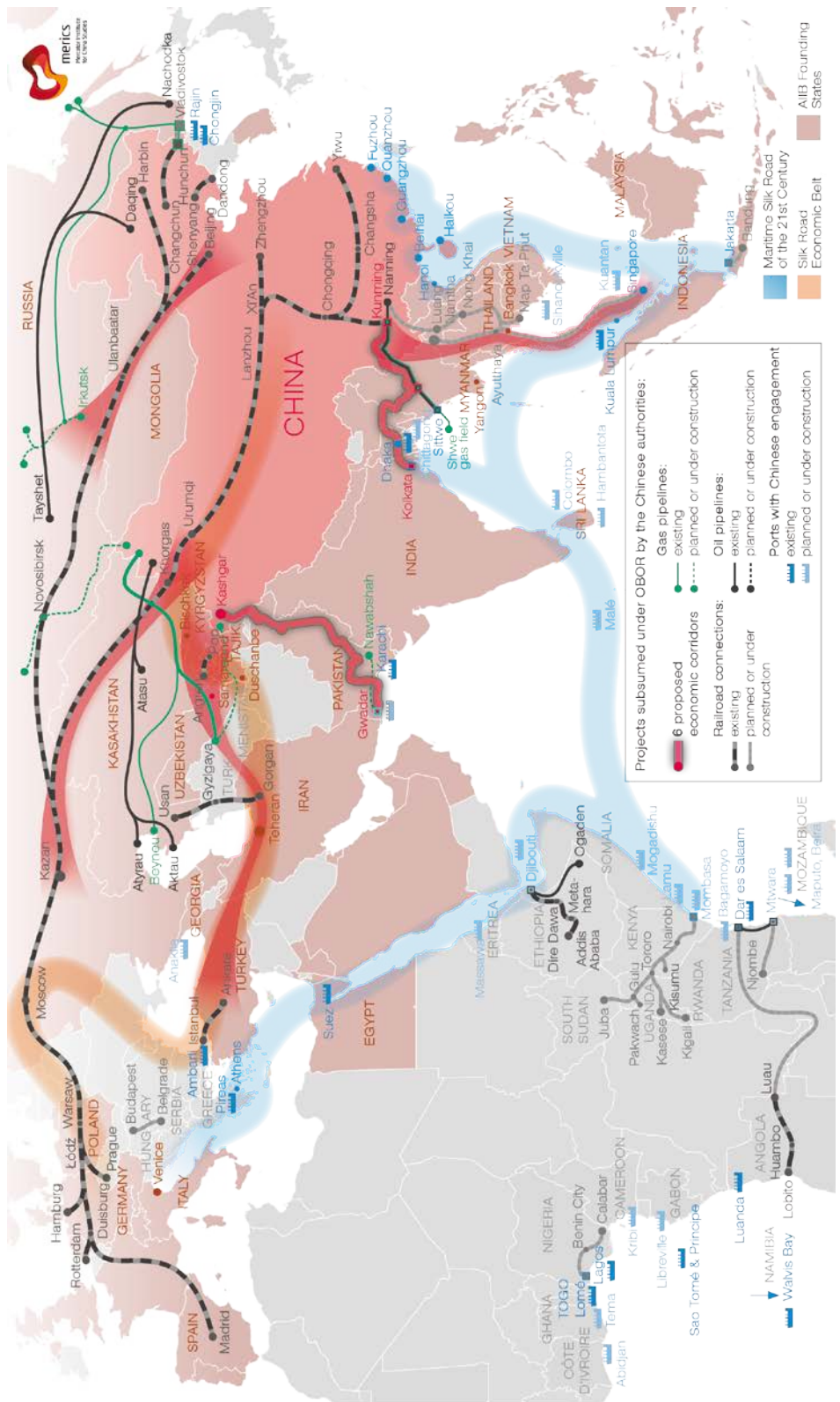
CHINA'S DEFENSE SPENDING



Source: IHS Jane's¹²



“ONE BELT, ONE ROAD”: CHINA’S PLANS FOR A GLOBAL INFRA-STRUCTURE NETWORK



Source: MERICS¹³



Iran: Dealt a Strong Hand?

“[F]or America negotiations with the Islamic Republic of Iran means penetration. [...] Negotiation with America is forbidden, because of its countless detriments and because of alleged advantages of which it has none whatsoever.”⁵
AYATOLLAH ALI KHAMENEI,
7 OCTOBER 2015

+5.8%
 Projected real GDP growth in 2016, compared to 1.9% GDP growth in 2015⁶
WORLD BANK,
SEPTEMBER 2015

KEY FEATURES AND PROVISIONS OF THE JCPOA (JULY 2015)

Ending a 12-year standoff over Iran's nuclear program, the “Joint Comprehensive Plan of Action” (JCPOA) was widely seen as a critical diplomatic breakthrough. It established the most rigorous nuclear verification mechanism ever negotiated and rolled back the most extensive sanctions regime ever imposed. “From our point of view, the agreed-upon deal is not the final objective but a development which can and should be the basis of further achievements to come,” Iran's President Hassan Rouhani said in September 2015.¹ Other critical actors in Tehran, however, have stressed that the deal on Iran's nuclear program should not be misunderstood as the beginning of an overall shift in Iran's engagement with the world.

Some Western leaders have attempted to tread a line between touting the historic nature of the deal while downplaying what it might mean for relations with Iran. “We're not measuring this deal by whether we are solving every problem that can be traced back to Iran,” US President Obama argued.²

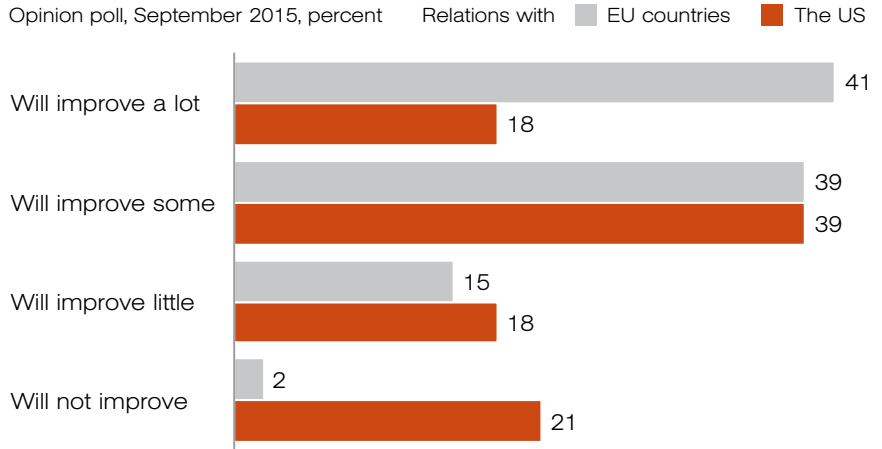
But the deal could facilitate Iran's rise without moderating the country's foreign policy. It may well help Iran further step up its destabilizing activities, including in Syria and Yemen, as a result of the windfall it can expect when sanctions end and international companies move back in. And the Gulf countries, in particular, are worried that a strengthened Iran, often in concert with Russia, could significantly alter the regional balance of power in its favor. As German Foreign Minister Frank-Walter Steinmeier put it at the MSC's Core Group Meeting in Tehran last fall: “In the best of all cases, Iran can become a responsible partner in solving [the region's] crises. Some guests in this room will doubt this, and many more outside of Iran doubt it, too. It is up to the Iranians to prove them wrong.”³

- Reduces Iran's stockpile of enriched uranium from 10,000 to 300 kg for 15 years and caps enrichment level to 3.67 percent for 15 years.
- Reduces Iran's centrifuges by two-thirds for ten years.
- Reconfigures the Arak reactor, ships all spent fuel from the reactor out of the country, and bans reprocessing of spent fuel for 15 years.
- Requires the implementation of the NPT Additional Protocol, allowing increased access by UN inspectors, including to military installations.
- Requires Iran to provide notification and details on future plans to build nuclear facilities.
- Monitors Iran's uranium supply chain for 25 and the centrifuge production chain for 20 years and restricts the purchase of nuclear material and equipment through a monitored procurement channel.
- Requires a UNSC resolution to continue the lifting of sanctions.

Source: International Crisis Group⁴

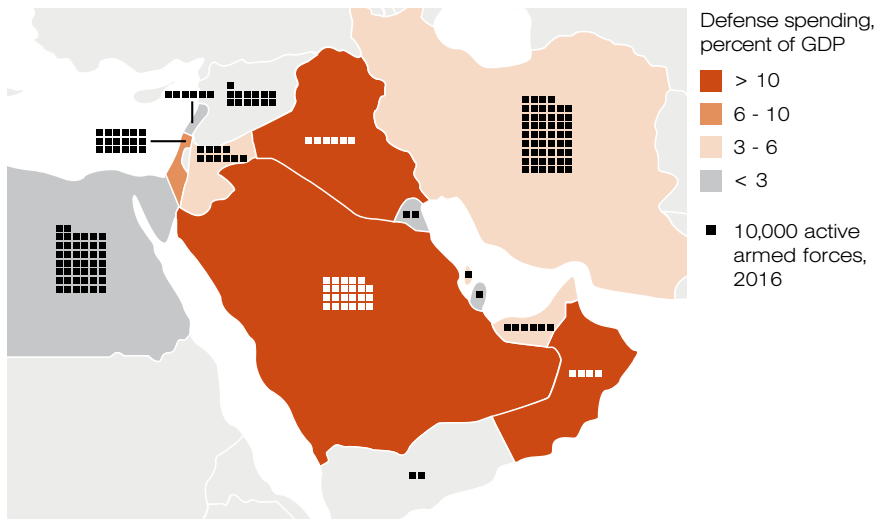


WHAT IRANIANS THINK: WILL RELATIONS WITH THE EU/US IMPROVE AFTER THE VIENNA AGREEMENT?

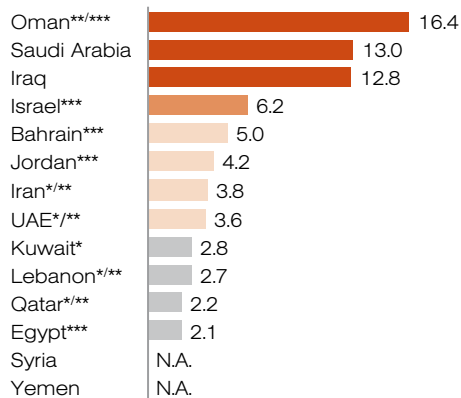


Source: CISSM & IranPoll.com⁷

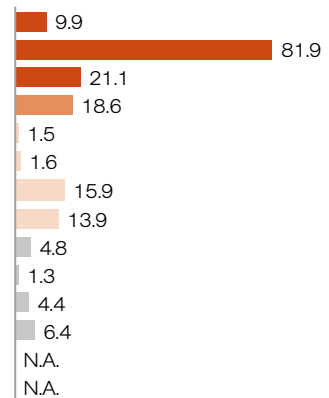
NATIONAL DEFENSE SPENDING AND ARMED FORCES IN THE MIDDLE EAST



Defense spending, percent of GDP, 2015



Defense spending, USD billions, 2015



* Numbers from 2014 (Iran, Kuwait) or 2013 (Lebanon, Qatar, UAE)
 ** Estimated numbers *** Includes US foreign military assistance
 Source: The International Institute for Strategic Studies⁸





Russia: Going South?

“Rather than bringing about reforms [in the Middle East and North Africa], an aggressive foreign interference has resulted in a brazen destruction of national institutions and the lifestyle itself. [...] I cannot help asking those who have caused the situation, do you realize now what you've done?”¹⁰

VLADIMIR PUTIN,
28 SEPTEMBER 2015

-3.8%

Russia's real GDP growth in 2015¹¹
WORLD BANK,
JANUARY 2016

“In fact, breaking the rules without being punished is the Kremlin's peculiar definition of being a great power.”¹²

IVAN KRASTEV,
12 AUGUST 2015

“It's not about Russia's ambitions, dear colleagues, but about the recognition of the fact that we can no longer tolerate the current state of affairs in the world,”¹ Russian President Putin said in his 2015 address to the UN General Assembly. Two days later, Russia entered the Middle Eastern fray with the launch of its air campaign in Syria.

In 2014, one goal of Russia's intervention in Ukraine was to forcibly ensure a lasting say for itself in Ukraine's future. Today, Russia's bombing campaign in Syria aims to rule out that there will be a solution to the Syrian civil war against its interests.

Remarkably, Russia's intervention has also helped break its isolation over Ukraine. Following the Paris attacks, French President Hollande stressed he was “convinced that Russia could play a great role”² in defeating the Islamic State and in bringing a political solution to Syria.

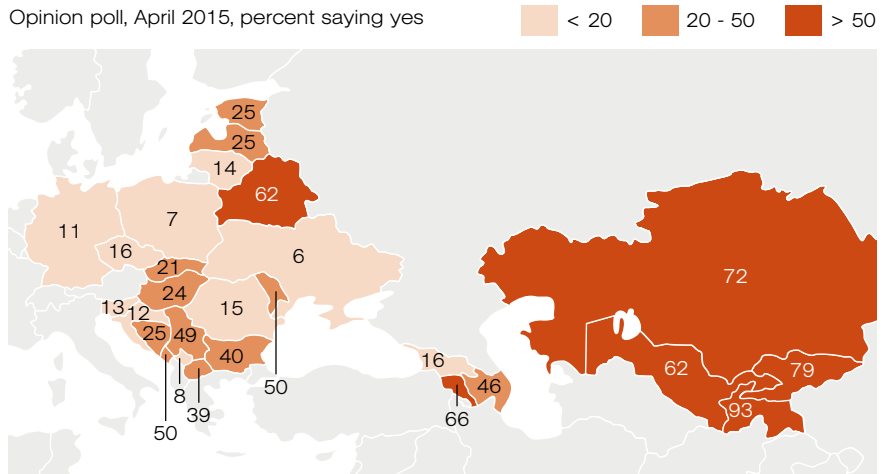
Some have argued that this rapprochement has been yet another example of Russia's tactical savvy and resurgence on the international stage. But while most Western governments are willing to cooperate with Russia on Syria and the Islamic State, few are ready to make concessions on Ukraine in exchange. The new buzzword is “compartmentalization.”³ Moreover, polls show that the citizens of many of Russia's neighbors, above all Ukraine, are very critical of the Russian leadership. Even traditionally non-aligned countries are now considering a NATO membership.⁴ It is difficult to argue that these are the results of a successful Russian foreign policy.

Domestically, too, Russia's new assertiveness is built on shaky ground. As a result of plunging oil prices, a lack of economic modernization and the consequences of Western sanctions, Russia faces “by far the most severe crisis [it] has experienced, even if you compare it to 1998 and 2008,”⁵ says Irene Shvakman, director with McKinsey in Moscow. Putin himself has acknowledged that “by changing nothing, we [Russia] will run out of reserves and the economic growth rates will linger around zero.”⁶ In light of this economic slump, how long will Russia be able to sustain its ambitious and costly military modernization project? “Turn off Russian television and Mr. Putin's achievements start to fade,”⁷ The Economist argues.

But so far, Putin's new social contract – promising Russian greatness in exchange for economic hardship and curtailed civil liberties – still is a winning model. 89 percent of Russians may think that the government's response to the economic crisis was “mediocre” or “poor.”⁸ But 68 percent of Russians said they were proud of Russia's political influence in the world – compared to a mere 26 percent in 1996.⁹ However, if and when the economic and social situation further deteriorates, the need for new foreign policy adventures may further increase as well.

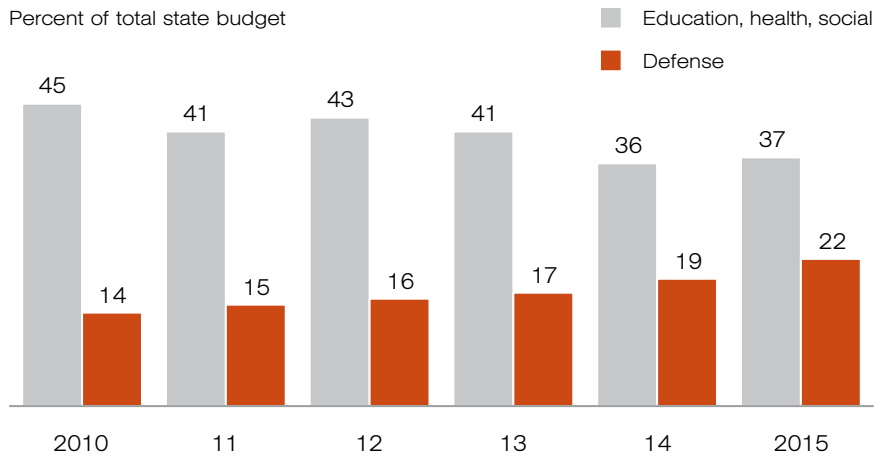


WHAT CITIZENS OF FORMER EASTERN BLOC COUNTRIES THINK: DO YOU APPROVE OF THE RUSSIAN LEADERSHIP'S JOB PERFORMANCE?



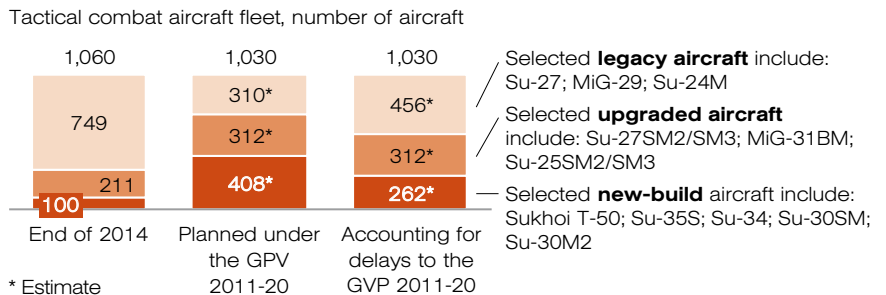
Source: Gallup¹³

HOW HAVE RUSSIA'S BUDGET PRIORITIES SHIFTED?



Source: IHS Jane's¹⁴

MODERNIZATION OF THE RUSSIAN AEROSPACE FORCES



Budgetary pressures and development and delivery delays mean that, while the Russian Aerospace Forces have benefited considerably from the country's 2011-20 State Armament Program (GPV), not all of the program's targets will be met. Purchases of the Sukhoi T-50 next generation combat aircraft were reduced from the 55 originally planned to 12 aircraft. As a result, more legacy aircraft will be operated in 2020. Russia is also modernizing its air-launched weapons to complement its aviation ambitions, with projects including the Vypel R-77-1 active radar-guided medium-range missile and the R-37M long-range air-to-air missile.

Source: The International Institute for Strategic Studies¹⁵





Islamic State: Daeshing Terror

“[Daesh] has the wealth of a state, the ambition of an imperial power, and an enemies list that reads like the roll call of the United Nations. It’s Al Qaeda with even less of a conscience, more manpower, and way more money.”⁷

**WILL MCCANTS,
16 NOVEMBER 2015**

A mere two years ago, the Islamic State (“Daesh” in a loose Arabic acronym for ISIL – Islamic State of Iraq and the Levant) was widely seen as Al Qaeda’s weaker little brother. In January 2014, US President Barack Obama famously compared the terrorist group to a junior sports team that just pretended to be the real deal.¹

Today, it is likely the best-financed terrorist franchise in history² and poses an “unprecedented threat to international peace and security,” according to a UN Security Council resolution.³ Capitalizing on failing states and power vacuums, Daesh runs a proto-state controlling wide swaths of Syria and Iraq. Moreover, the group has declared provinces of its caliphate in numerous states from Algeria to the Caucasus and Afghanistan. It has secured the allegiance of leading jihadist groups including Boko Haram, and with the attacks in Paris and, allegedly, Istanbul, Daesh has also shown its ability to carry out elaborate strikes against the West.

In addition to its territorial conquests and its network of potential militants in many cities, Daesh has a grasp of digital spaces never displayed by jihadist groups before. From social media platforms over private chatrooms to encrypted messaging systems, the group is taking advantage of a networked world for its sophisticated digital recruitment and propaganda operations. Moreover, studies suggest that the flow of foreign fighters to join Daesh in Iraq and Syria remains solid, in spite of international efforts to curtail it. The average rate of fighters who return to the West is estimated to be 20 to 30 percent of those who originally left.⁴ Some of them may well be disillusioned, but others remain committed to Daesh’s cause and the idea it represents.

“Let France and those who walk in its path know that they will remain on the top of the list of targets of the Islamic State [...] as long as they lead the convoy of the Crusader campaign, and dare to curse our Prophet [...] and are proud of fighting Islam in France and striking the Muslims in the land of the Caliphate with their planes [...]. This attack is the first of the storm and a warning to those who wish to learn.”⁸

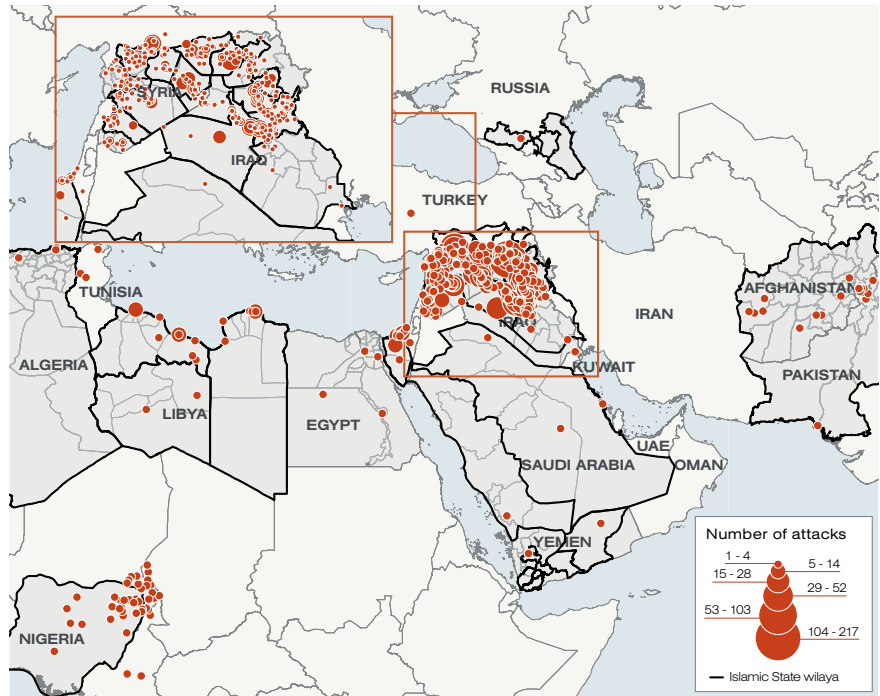
**DAESH COMMUNIQUE,
15 NOVEMBER 2015**

“We have not defeated the idea. We do not even understand the idea,” Major General Michael Nagata, then US Special Operations commander in the Middle East, admitted in mid-2014.⁵ Today, the understanding has somewhat increased, but crucial questions remain. These include: why was Paris struck, and does this mean a shift in Daesh’s strategy? The strategic literature revered by Daesh militants suggests conflicting reasons for attacks in the West.⁶ Is the rationale to have crusaders “pay the price” for their actions against Daesh, or is it mostly an act aimed to inspire other would-be jihadists? Are the attacks meant to drag the West into a ground war, or are they meant to persuade the West to stay out of a war with Daesh?

Whatever Daesh’s intent, the West’s answer is somewhere in between. Nobody is willing to commit to very costly and risky ground operations in what is largely Sunni territory. While the Paris attacks did galvanize support for a sustained air campaign, weakening Daesh from the air does not make for a coherent strategy. Most countries have a genuine interest in defeating Daesh, but for key regional players it is not necessarily a priority in the Syrian quagmire. And this is not the only critical impediment to sustained successes against Daesh; it is very unlikely that the group and its proto-state can be defeated in the absence of a settlement of the civil war in Syria.



WHERE HAS DAESH STRUCK (JULY 2014 - SEPTEMBER 2015), AND WHERE HAS IT DECLARED "WILAYAT" (PROVINCES)?

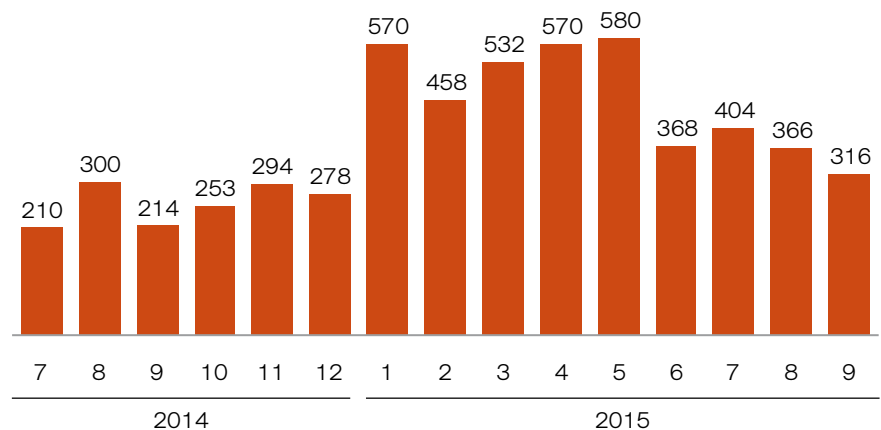


Note: Above attacks consist of operations that were either claimed by Daesh or definitively attributed to the group by national authorities. There were likely a higher number of attacks conducted by Daesh in this period, particularly in Iraq and Syria, which could not be definitively linked to the group and as such were not included in the figures.

Source: IHS Jane's Terrorism & Insurgency Centre (JTIC)⁹

HOW OFTEN HAS DAESH STRUCK?

Number of attacks per month



Source: IHS Jane's Terrorism & Insurgency Centre (JTIC)¹⁰

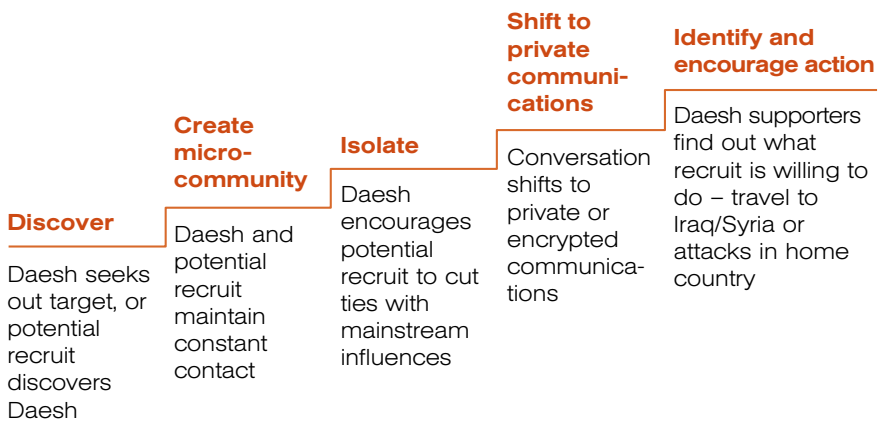


WHAT ARE THE BUILDING BLOCKS OF DAESH'S DIGITAL COMMAND STRUCTURE?

Central command for digital operations	"Gives orders and provides resources for disseminating content. Although its numbers are small, its operations are highly organized"
Daesh's digital rank and file	"Run digital accounts that are connected to the central command and disseminate material through guerrilla-marketing tactics"
Radical sympathizers worldwide	"Spend their time helping the group disseminate its radical message and convert people to its cause [and] identify and engage potential recruits on an individual level"
Tens of thousands of fake accounts	"Automate the dissemination of its content and multiply its message"

Source: Cohen, Foreign Affairs¹¹

HOW DOES DAESH SEDUCE RECRUITS ONLINE?



Source: Berger, CTC Sentinel¹²

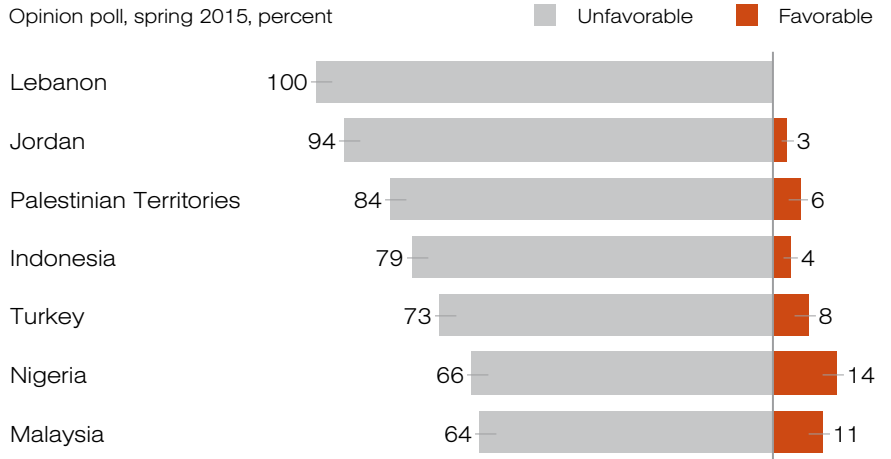
WHAT ARE DAESH'S KEY PROPAGANDA THEMES?

Urgency "The (Sunni Arab) Muslims are being slaughtered now."	Agency "It is up to you, the Muslim viewer, to do something now to save the Muslims."
Authenticity "The seemingly authentic black flag, the savage videos, and the black dress all reinforce the message that this is the unvarnished truth, hard but pure."	Victory "Further proof of ISIS's divinely sanctioned authenticity is that it is 'here to stay and growing.'"

Source: Fernandez, Brookings¹³

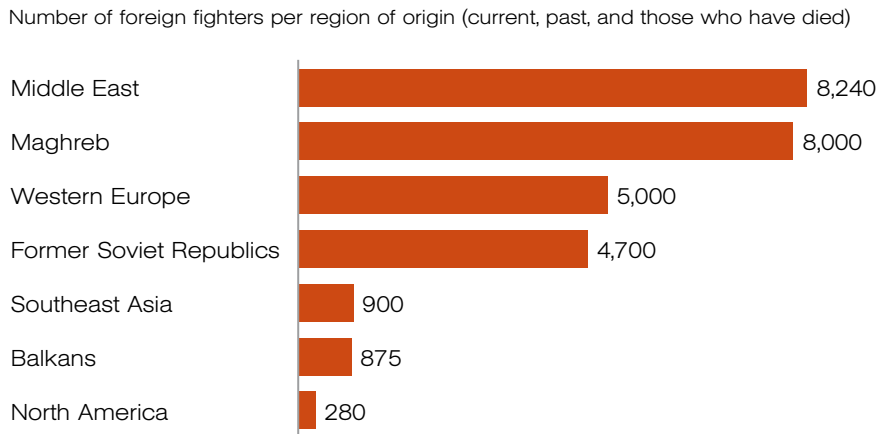


WHAT ARE ATTITUDES TOWARDS DAESH IN SELECT COUNTRIES WITH SIGNIFICANT MUSLIM POPULATION?



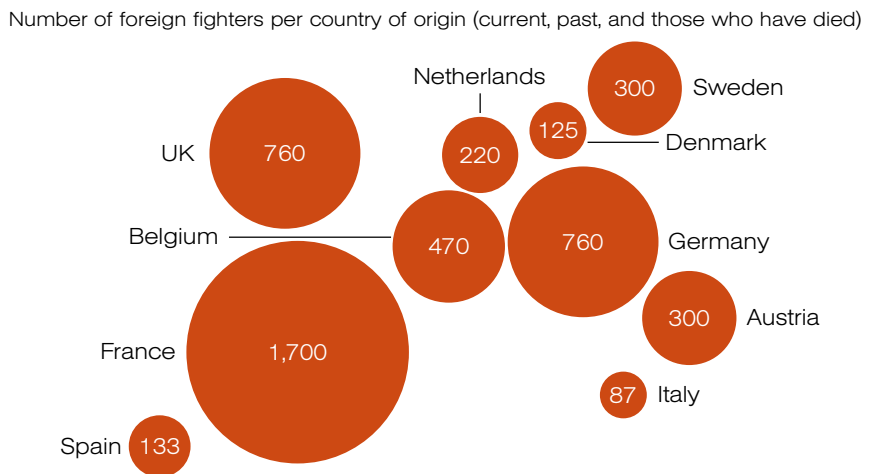
Source: Pew Research Center¹⁴

WHERE DO FOREIGN FIGHTERS IN SYRIA AND IRAQ COME FROM?



Source: The Soufan Group¹⁵

WHAT ARE THE TOP EU COUNTRIES OF ORIGIN FOR FOREIGN FIGHTERS IN IRAQ AND SYRIA?



Source: The Soufan Group¹⁶





Places





Eastern Europe: (The) Curtain Calls?

“NATO is supposed to be here to protect the alliance. [...] If Poland and other central European countries constitute the real flank of NATO, then it seems natural to me, a logical conclusion, that bases should be placed in those countries.”⁷

ANDRZEJ DUDA,
AUGUST 2015

“Moscow has always said that the continued expansion of NATO, of NATO military infrastructure in the east, cannot but lead to a response from the east, that is from Russia.”⁸

DMITRY PESKOV,
2 DECEMBER 2015

“This crisis can be resolved only through a robust process of active diplomacy. [...] This must be done in a way that reaffirms the Helsinki Final Act and the Charter of Paris.”⁹

**PANEL OF EMINENT
PERSONS ON EUROPEAN
SECURITY,**
DECEMBER 2015

Snap exercises involving tens of thousands of soldiers, close encounters between NATO and Russian aircraft, submarine hunts, thinly veiled nuclear threats – what reads like a Cold War script is part of a description of the security situation in Europe in 2015. In the absence of crisis management mechanisms, there is a real risk of further escalation.

Some Western leaders, including NATO Secretary General Jens Stoltenberg, have called for new standards and increased transparency in order to reduce that risk. As Stoltenberg stressed: “The reality is that the rules-book of European security is out of date. [...] We should not sleep-walk into unintended escalation.”¹ Some Allies have also pushed for a revitalization of the NATO-Russia Council, emphasizing the need for reengagement with Russia.² Still others think that too strong an emphasis on NATO’s Eastern borders could be dangerous in the long run.

At the same time, the Allies on NATO’s eastern flank insist on a stronger NATO footprint on their soil, and they fear that other members are ready to make concessions to Russia before the Russian government changes its behavior. They went so far as to hold a proper summit in Bucharest to coordinate their position.³ The ongoing discussion about issues such as a “permanent” or “persistent” presence in the East may be a debate about pseudo-problems.⁴ But many experts doubt that NATO could effectively defend the Baltic States.⁵ Conflicting positions on reassurance and deterrence on the one hand and reengagement with Russia on the other may become the most divisive issues in the run-up to NATO’s Warsaw summit in July 2016.

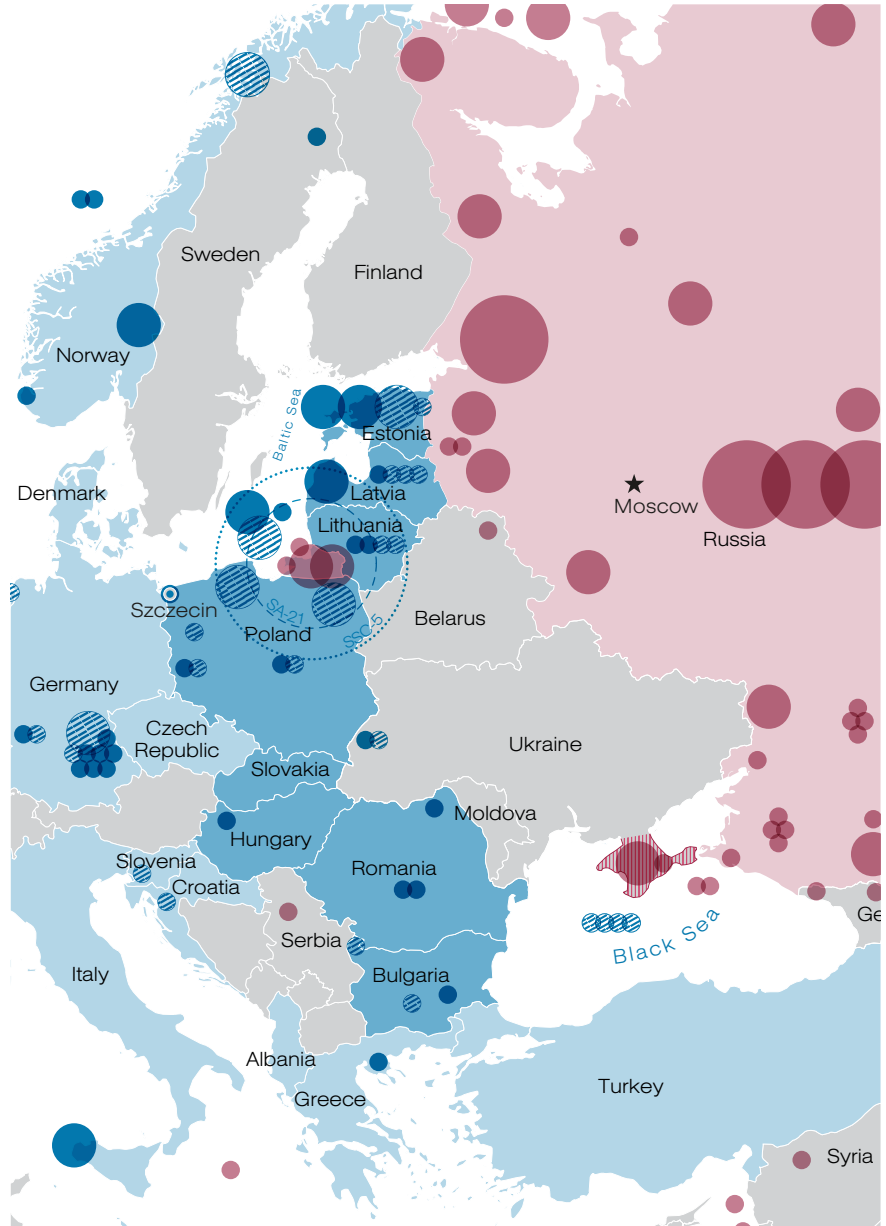
Russian assertiveness in the region has also sparked domestic debates about NATO membership in both Finland and Sweden. Should they accede to the Alliance, the division of Europe, which is already reflected in the different narratives of the crisis, would also be institutionally cemented into a NATO-/EU-based Western camp, a Russian camp, and very few countries in the middle. If the current situation deteriorates, Eastern Europe might witness the emergence of a new kind of Iron Curtain at the NATO-Russian border and a cordon consisting of those few countries “in between,” whose security status and economic relationships remain contested.

Ukraine, in particular, remains stuck in the middle. Should Minsk be implemented swiftly, this would help lead to a thawing of Western-Russia relations and could offer the German OSCE presidency an opening for further diplomatic initiatives. But Russia seems unlikely to loosen its grip on Ukraine, while the EU is reluctant to offer large-scale financial or political support beyond the free-trade agreement. This is also due to increasing skepticism regarding the Ukrainian willingness to reform. Many Western politicians are calling for serious efforts to fight “the cancer of corruption” as US Vice President Biden stressed in his speech in the Rada when he warned the parliamentarians not to miss another chance to “build a united, democratic Ukrainian nation that can stand the test of time.”⁶



**MILITARY ACTIVITIES
IN EASTERN EUROPE**

Designated Very High Readiness Joint Task Force (VJTF) reception facilities, selected NATO and Russian exercises in 2014/15, and selected Russian Anti-Access/Area Denial (A2/AD) capabilities



NATO members	Selected Russian military exercises
NATO members with VJTF Force Integration Units (FIU)	Troops involved:
Russia	< 5,000
Annexed by Russia	5,000 - 50,000
Selected NATO military exercises	> 50,000
Selected military exercises incl. NATO members outside of NATO framework	Range of SA-21 (surface-to-air)
	Range of SSC-5 (anti-ship)
	HQ Multinational Corps Northeast

Source: Center for Security Studies (ETH Zurich)¹⁰





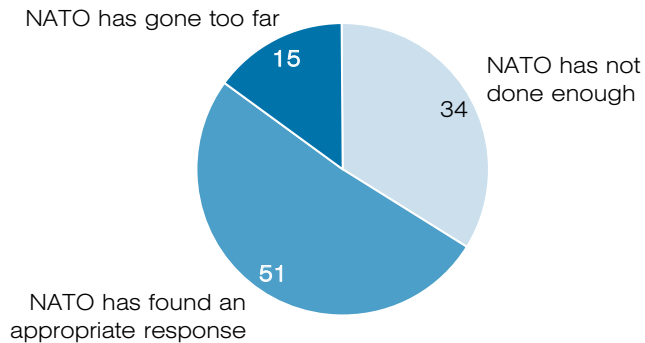
WHAT WAS AGREED IN THE NATO-RUSSIA FOUNDING ACT (1997)?

“NATO reiterates that in the current and foreseeable security environment, the Alliance will carry out its collective defense and other missions by ensuring the necessary interoperability, integration, and capability for reinforcement rather than by additional permanent stationing of substantial combat forces. Accordingly, it will have to rely on adequate infrastructure commensurate with the above tasks. In this context, reinforcement may take place, when necessary, in the event of defense against a threat of aggression and missions in support of peace consistent with the United Nations Charter and the OSCE governing principles, as well as for exercises consistent with the adapted CFE Treaty, the provisions of the Vienna Document 1994 and mutually agreed transparency measures. Russia will exercise similar restraint in its conventional force deployments in Europe.”

Source: NATO-Russia Founding Act¹¹

WHAT IS YOUR EVALUATION OF NATO’S RESPONSE TO THE MORE HOSTILE SECURITY ENVIRONMENT IN EUROPE SINCE EARLY 2014?

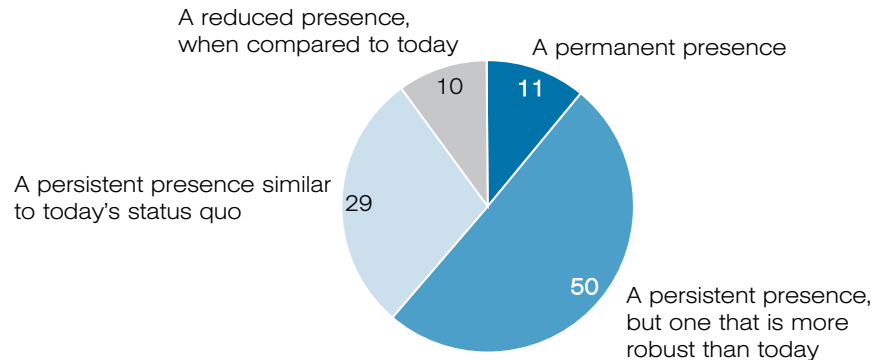
Survey among European defense leaders, September 2015, percent



Source: Munich Security Conference¹²

WHAT WILL NATO'S POSTURE IN ITS EASTERN MEMBER STATES LOOK LIKE BY 2020?

Survey among European defense leaders, September 2015, percent



Source: Munich Security Conference¹³



SELECT SERIOUS MILITARY INCIDENTS AND CLOSE ENCOUNTERS IN EUROPE

As logged by the European Leadership Network (ELN) in 2014/15

1 3 Mar 2014

Near-collision between SAS airliner and Russian reconnaissance aircraft due to the latter's not broadcasting its position.

States involved:
Denmark, Russia

2 9 May 2014

Abduction of an Estonian security service operative by Russian agents on NATO territory. Raid involved communications jamming and smoke grenades.

States involved:
Estonia, Russia

3 Jun 2014

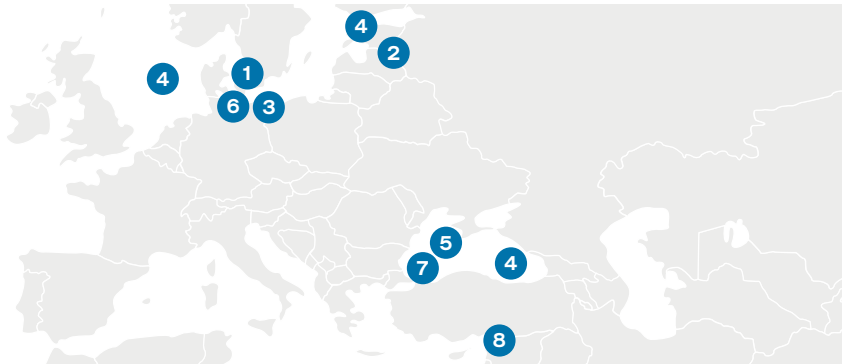
Armed Russian aircraft approached the heavily populated Danish island of Bornholm before breaking off in what appears to have been a simulated attack.

States involved:
Denmark, Russia

4 28 - 30 Oct 2014

Massive surge of activity of Russian aviation along NATO borders, including long-range bombers over the North Sea, Atlantic, and the Black Sea, as well as big formation of fighters and bombers over the Baltic Sea.

States involved:
Russia



5 4 Dec 2014

US warship USS Cook harassed by unarmed Russian aircraft, which made twelve passes, in the Black Sea.

States involved:
US, Russia

6 12 Dec 2014

Near-collision between Russian military jet, flying without using its transponders, and Swedish commercial airliner.

States involved:
Sweden, Russia

7 Mar 2015

Russian fighter-bombers using NATO warships in the Black Sea to practice attack scenarios.

States involved:
Russia, US, Turkey

8 24 Nov 2015

Russian SU-24 bomber shot down by Turkey in the Turkish-Syrian border region. First live military clash between a NATO state and Russia since the Cold War.

States involved:
Russia, Turkey

The management of close military encounters

Against the backdrop of wide mistrust and tension in the NATO-Russia relationship, these incidents have the potential to trigger a major crisis. There is currently no agreement between NATO and Russia on how to manage such close encounters effectively. Eleven NATO countries have bilateral agreements with Russia (the US, the UK, Germany, France, Italy, Norway, Spain, the Netherlands, Canada, Portugal, and Greece). Turkey does not. All these agreements stem from the Cold War. They mostly focus on the management of incidents at sea and are modeled on the original US-Soviet 1972 Agreement on the Prevention of Incidents on and over the High Seas. They have not been effectively updated or extended in any way to meet wider current challenges in the air, land, or cyber domains.

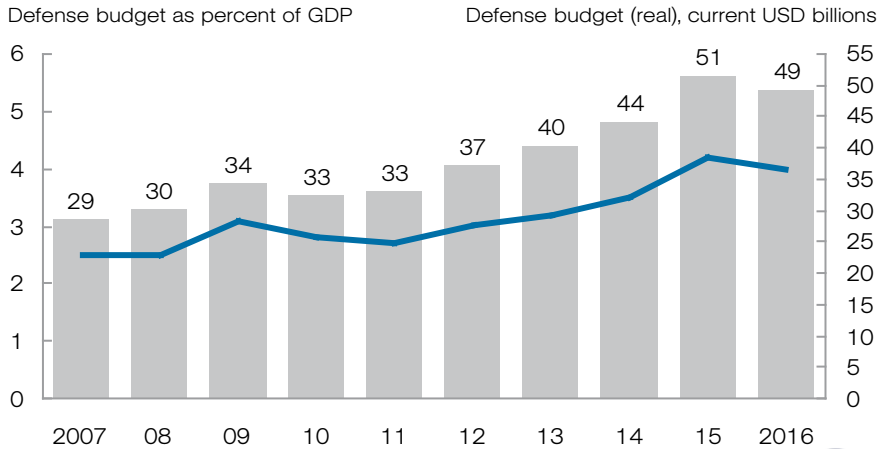


THE TOLL OF THE WAR IN UKRAINE (NOVEMBER 2015)

9,098 People killed	20,732 People wounded
1,580,000 Internally displaced	1,100,000 Externally displaced
5,000,000 People in need	Approx. 30,000 hectares Contaminated by explosives

Source: OHCHR; OCHA¹⁵

RUSSIA'S DEFENSE SPENDING



Source: IHS Jane's¹⁶



NATIONAL SECURITY STRATEGY OF THE RUSSIAN FEDERATION (DECEMBER 2015)

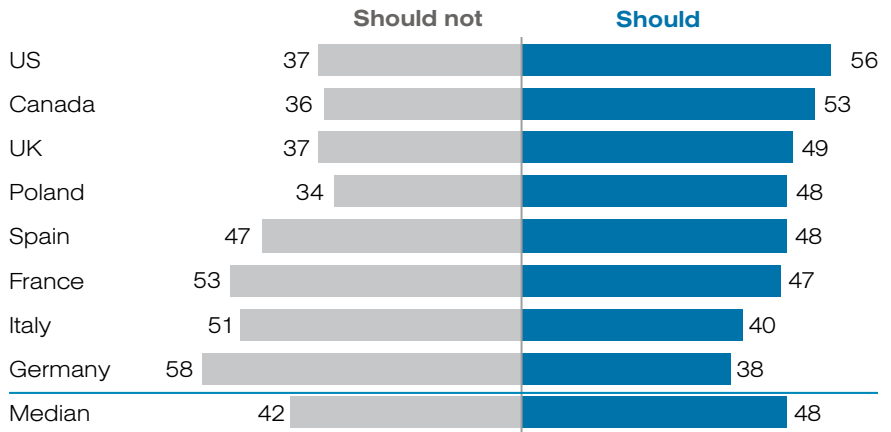
“The strengthening of Russia comes amid new national security threats of complex and interrelated character. The Russian Federation’s independent foreign and domestic policy prompts the opposition of the US and its allies, which are striving to maintain their dominant position in the world. Their deterrent policy towards Russia envisages the exertion of political, economic, military, and information pressure. [...] The expansion of NATO force potential and its endowment with global functions, achieved through the violation of international legal norms, the bloc’s military activation, its continued expansion, and the approach of its military infrastructure towards Russian borders, all create a national security threat.”

Source: The Kremlin¹⁷



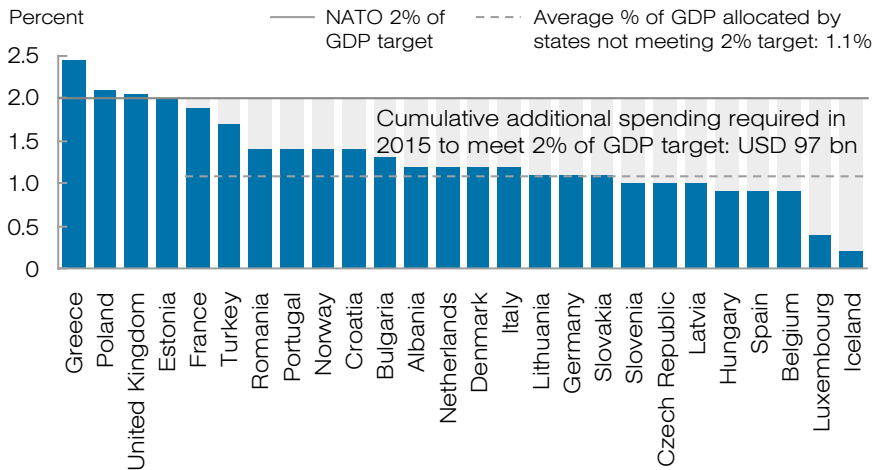
WHAT CITIZENS OF NATO MEMBER STATES THINK: IF RUSSIA GOT INTO A SERIOUS MILITARY CONFLICT WITH A NATO ALLY, SHOULD OUR COUNTRY USE MILITARY FORCE TO DEFEND THAT COUNTRY?

Opinion poll, June 2015, percent of citizens living in ...



Source: Pew Research Center¹⁸

NATO EUROPE DEFENSE SPENDING IN 2015 – MEETING THE 2% OF GDP TARGET?



Source: The International Institute for Strategic Studies (IISS)¹⁹



NATIONAL SECURITY STRATEGY OF THE UNITED STATES (FEBRUARY 2015)

“Escalating challenges to cybersecurity, aggression by Russia, the accelerating impacts of climate change, and the outbreak of infectious diseases all give rise to anxieties about global security. [...] In the realm of inter-state conflict, Russia’s violation of Ukraine’s sovereignty and territorial integrity – as well as its belligerent stance toward other neighboring countries – endangers international norms that have largely been taken for granted since the end of the Cold War. [...] We are reassuring our allies by backing our security commitments and increasing responsiveness through training and exercises, as well as a dynamic presence in Central and Eastern Europe to deter further Russian aggression.”

Source: The White House²⁰



Africa: Keeping P(e)ace?

“African societies are changing. We see that young people especially are calling for more participation in business and politics. The youngest population in the world – in some countries the average age is under 18 – is often looking at the oldest presidents.”⁵

**FRANK-WALTER
STEINMEIER,
7 SEPTEMBER 2015**

“The growth in Africa’s working-age population will be relentless and inevitable. Will that growth produce a demographic dividend or a demographic disaster? The answer is up to Africa’s policy makers – today.”⁶

**WORLD BANK/AGENCE
FRANÇAISE DE
DÉVELOPPEMENT,
22 OCTOBER 2015**

“No region has done less to contribute to the climate crisis, but no region will pay a higher price for failure to tackle it.”⁷

**KOFI ANNAN,
JUNE 2015**

In Africa, promising progress and substantial achievements continue to side with frustrating reversals and worrying trends. Many of the continent’s 54 countries have seen solid rates of growth and meaningful economic reforms. Middle classes continue to grow and more and more countries meet development goals in areas such as education, health, and agricultural output. Extreme poverty, while still high, has been cut by 40 percent since 1990 in Sub-Saharan Africa.¹ The increasing willingness and capacity of African institutions such as the African Union and regional economic communities like ECOWAS to tackle the continent’s problems as well as recent landmark agreements, including those of the United Nations Sustainable Development Summit and the COP 21 Conference on Climate Change in Paris, also bode well for Africa.

At the same time, there remain large obstacles to building and keeping peace – and to keeping pace with stunning demographic trends. In most countries of Sub-Saharan Africa, the median age is below 20, and governance institutions and infrastructures are hardly prepared to keep up with this youth bulge. With the continent’s population expected to double in the next thirty years, hundreds of millions of jobs will have to be created to avoid discontent, radicalization, and, ultimately, insecurity. As US President Barack Obama pointed out during his 2015 visit to Ethiopia, “we need only to look at the Middle East and North Africa to see that large numbers of young people with no jobs and stifled voices can fuel instability and disorder. I suggest to you that the most urgent task facing Africa today and for decades ahead is to create opportunity for this next generation.”²

Pervasive poverty, growing inequality, climate-driven migration, and rapid urbanization complicate this task – as does the prevalence of conflict throughout the continent. Africa continues to host eight out of the ten largest ongoing peace operations. Electoral violence and unconstitutional changes of government remain common, and numerous protracted conflicts unresolved. Northern Africa has not yet recovered from its failed or incomplete popular uprisings. Furthermore, across parts of the continent, home-grown jihadist terrorism is taking an increasing death toll, with Islamic State-affiliated Boko Haram responsible for more deaths than any other terrorist group in 2015, including the Islamic State proper.³ Moreover, in critical regions, there has been rapid growth of illicit activities such as human, arms, and drugs trafficking. For the Sahel, a report by the International Crisis Group observed in June 2015: “Borders are porous, government reach limited. Populations and unemployment are soaring” – a “perfect storm of actual and potential instability.”⁴

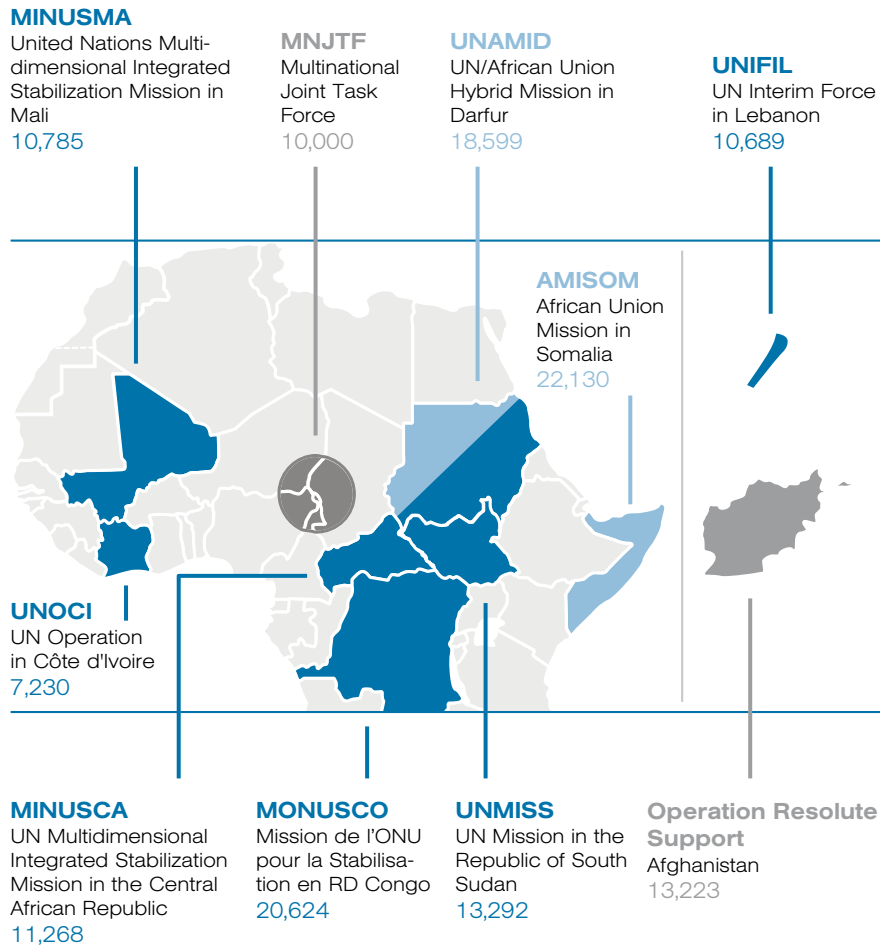
Amid continuing signs of economic and political progress, the dual challenges of keeping peace and keeping pace are thus not bound to get any easier in 2016.



WHAT ARE THE TEN LARGEST INTERNATIONAL PEACE OPERATIONS?

Number of personnel (police, military experts, troops) in international peace operations, as of September 2015

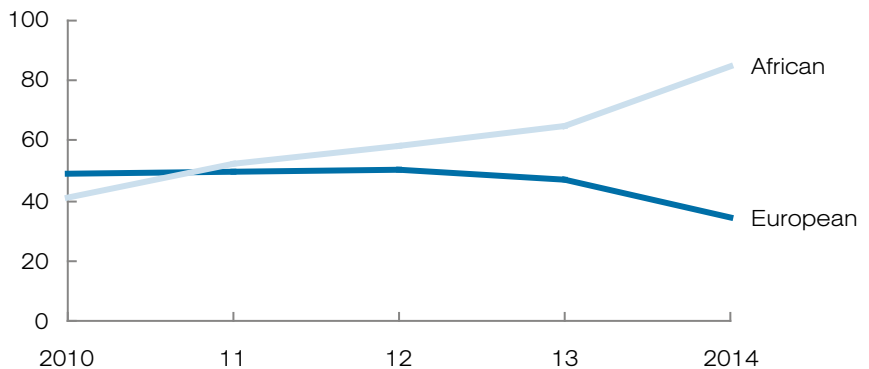
UN peacekeeping missions
 AU missions
 Other



Source: Center for International Peace Operations⁸

AFRICAN AND EUROPEAN CONTRIBUTIONS TO INTERNATIONAL PEACE OPERATIONS

Number of personnel (police, military experts, troops) in international peace operations, thousands

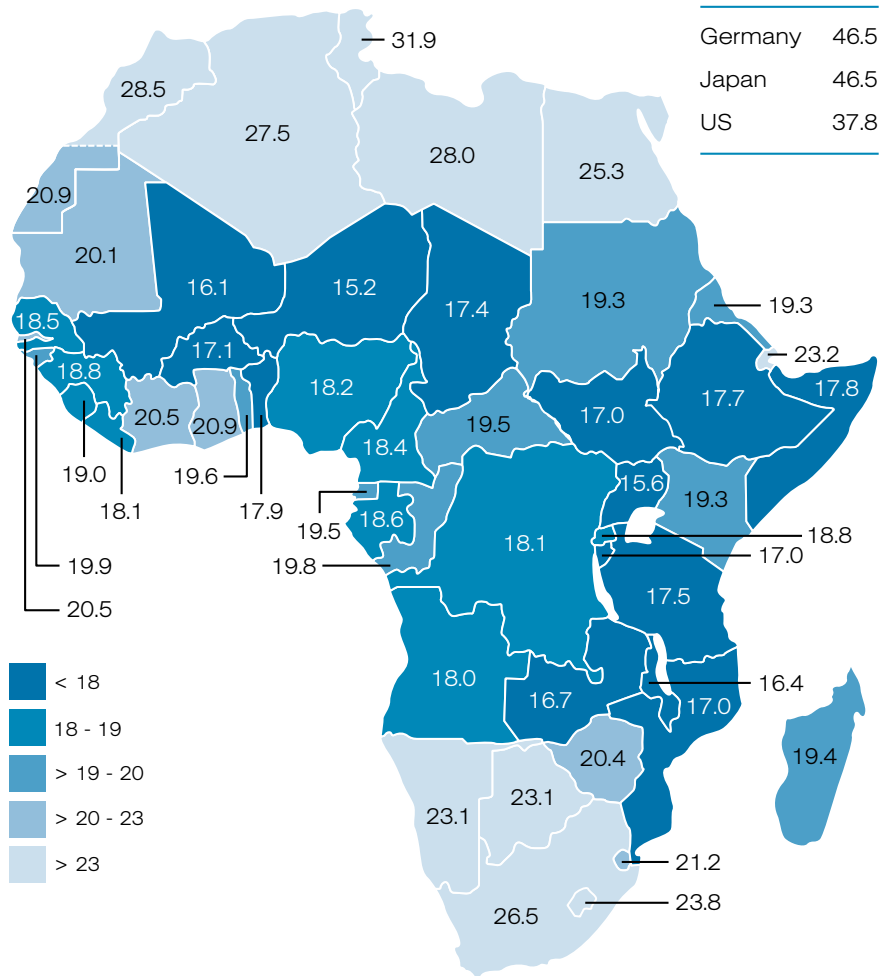


Source: Center on International Cooperation⁹



WHAT IS THE MEDIAN AGE IN AFRICAN COUNTRIES?

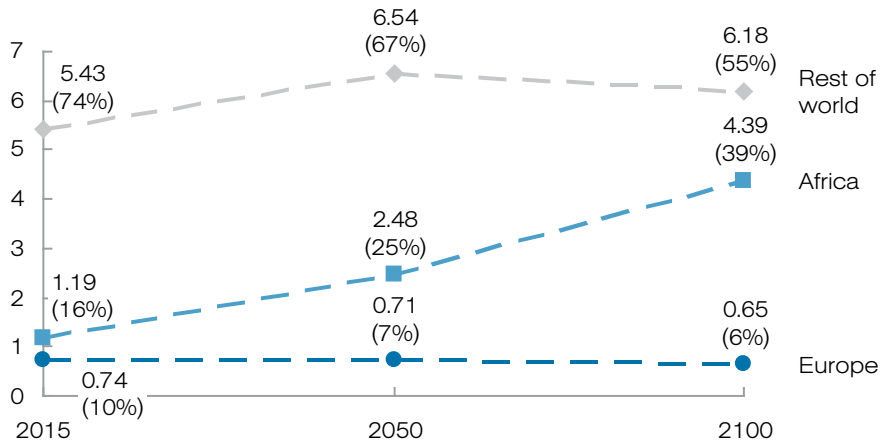
Based on 2015 estimates



Source: CIA World Factbook¹⁰

AFRICA'S POPULATION GROWTH IN COMPARISON

Population size, billions (share of world population)

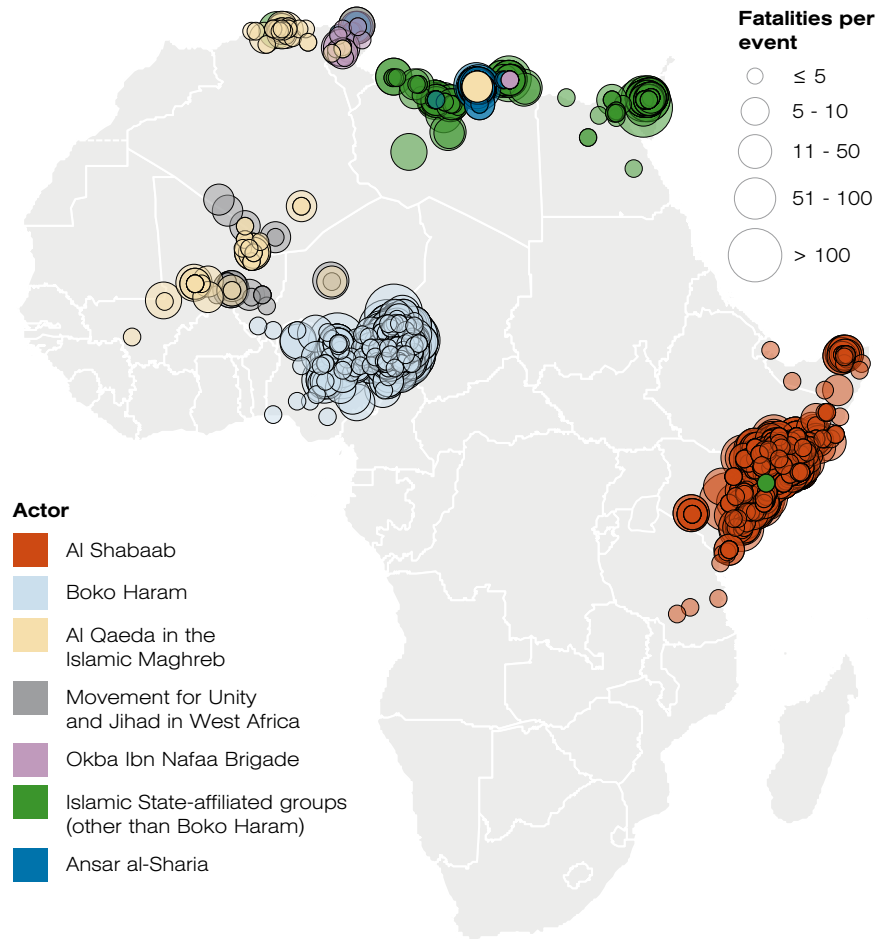


Source: UN DESA¹¹

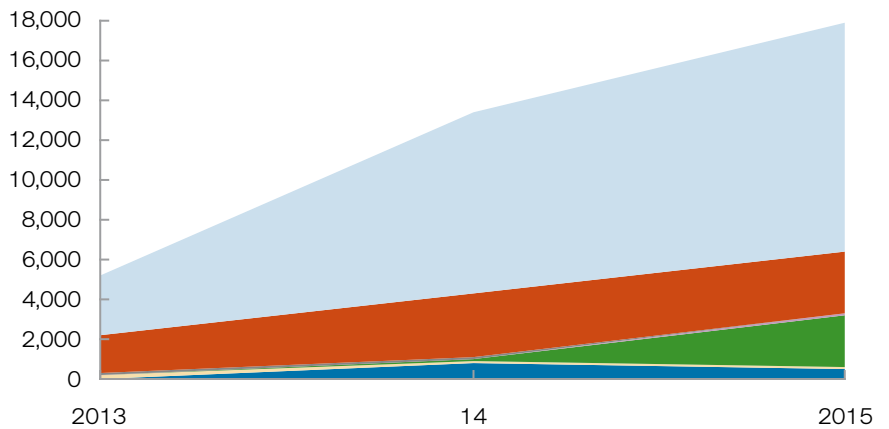


**JIHADIST VIOLENCE
IN AFRICA**

Number of deaths in conflicts involving jihadist violence, 2013-15



Number of deaths by actor, 2013-15



Source: Armed Conflict Location and Event Data Project¹²



The War in and over Syria: Assad Story

"[M]any, including the Syrian government, are ready to fight to the last Syrian in order to force the world to recognize that their position is the right one. [...] This is the most cynical war I have ever encountered."⁷

**STAFFAN DE MISTURA,
30 JULY 2015**

"It will be up to Syrians to implement a peace, and so it should be up to Syrians to lead the political process. And Syrians are abundantly clear: Assad cannot be part of a future, democratic Syria. Only by removing Assad can we save what remains of the Syrian state [...]."⁸

**THE CURRENT AND THREE
FORMER PRESIDENTS OF
THE NATIONAL COALITION
OF SYRIAN REVOLUTION
AND OPPOSITION FORCES,
20 NOVEMBER 2015**

"We've got a coalition of 65 countries who have been active in pushing back against ISIL for quite some time. [...] Russia right now is a coalition of two, Iran and Russia, supporting Assad."⁹

**BARACK OBAMA,
24 NOVEMBER 2015**

Half of Syria's pre-war population – at least 10.9 out of 22 million – has fled their homes, and over 4 million have left the country. Hundreds of thousands have been killed, most of them by Syrian government forces.¹ In the summer of 2015, UN Syria envoy Staffan de Mistura was called "the man with the toughest job in the world."²

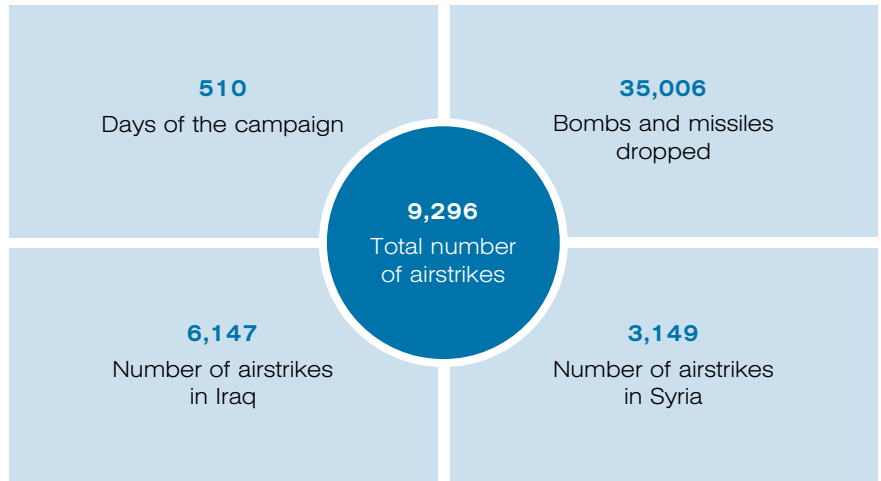
Since then, there has been some progress: Through the Vienna declaration and a UN Security Council resolution, key world and regional powers have finally agreed on the outline of a peace plan. The plan contains very ambitious goals, including democratic elections within 18 months. But the implementation process will likely soon show that there is, in reality, not much agreement. With a stronger international focus on Syria, and more actors involved, the conflict has also gotten even more complicated and protracted than it already was. Jointly with Iran, Russia has massively increased its support for President Assad as well as the fight against the Syrian opposition. "There is no other solution to the Syrian crisis than strengthening the effective government structures and rendering them help in fighting terrorism,"³ Russian President Putin argues. Analyses show that a majority of Russia's airstrikes are conducted in areas controlled by the mainstream opposition, not in those controlled by the Islamic State. Iran has even begun to publicly honor Iranians who die fighting for and with Assad in Syria.⁴

For Europeans and Americans, the Assad regime is neither an effective government nor is it a legitimate one. As French Foreign Minister Laurent Fabius stressed, "How could this man [Assad] unite a population that he has, in large part, helped to massacre?"⁵ Unsurprisingly, for the Syrian opposition, Assad's removal remains a fundamental condition. The critical challenge, then, is to design a process of political transition that keeps Russia and Iran as well as the mainstream Sunni opposition on board. After the terrorist attacks in Paris, the majority of Western governments has already softened their stance vis-à-vis the regime to some degree. In Moscow, in December 2015, Secretary of State John Kerry said that "the United States and our partners are not seeking so-called 'regime change.' [...] What we have said is that we don't believe that Assad himself has the ability to be able to lead the future Syria."⁶

But while there may be hope for a Western-Russian entente on Syria, other key factors are complicating the state of play. The fact that, over a period of a few weeks, there were three different conferences of self-proclaimed representatives of the opposition underscores the difficulty of finding joint positions. And the recent fallout between Saudi-Arabia and Iran – after their promising joint participation in the Vienna peace talks in the fall – threatens all prospects of even a modest rapprochement. It also further exacerbates the confessional fault lines and sectarian tensions at play in the Middle East – in Syria and beyond.



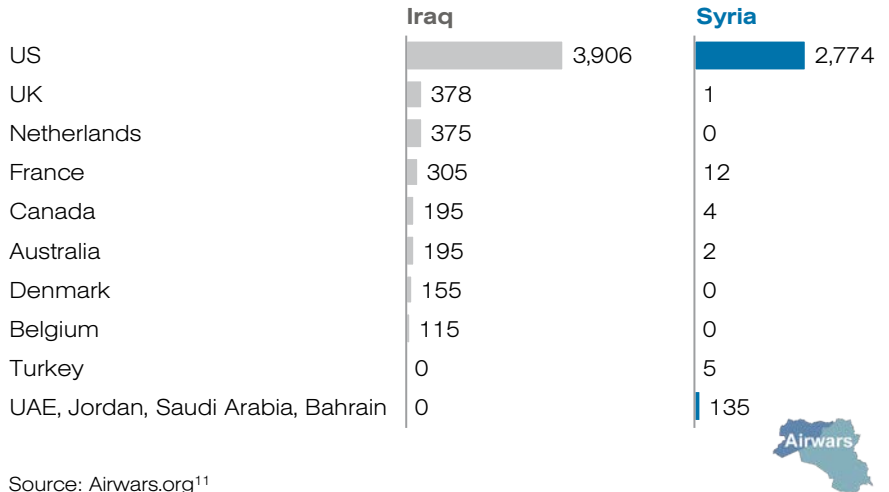
THE “ANTI-ISIL COALITION” AIR CAMPAIGN (AS OF 31 DECEMBER 2015)



Source: Airwars.org¹⁰

AIRSTRIKES CONDUCTED BY “ANTI-ISIL COALITION” MEMBERS BETWEEN 8 AUGUST 2014 AND 30 NOVEMBER 2015

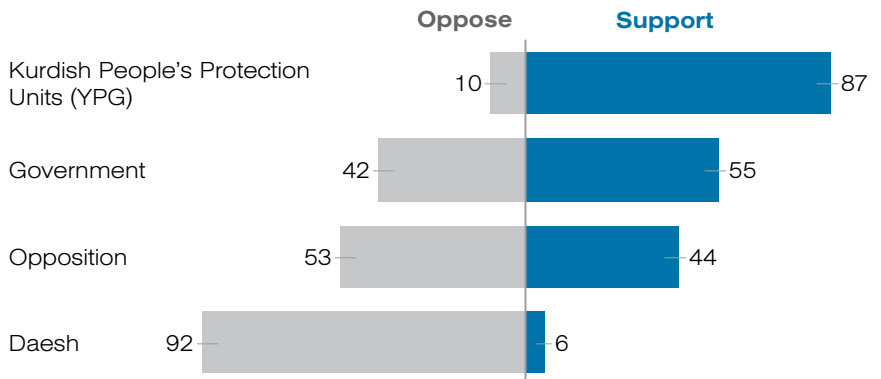
Number of airstrikes



Source: Airwars.org¹¹

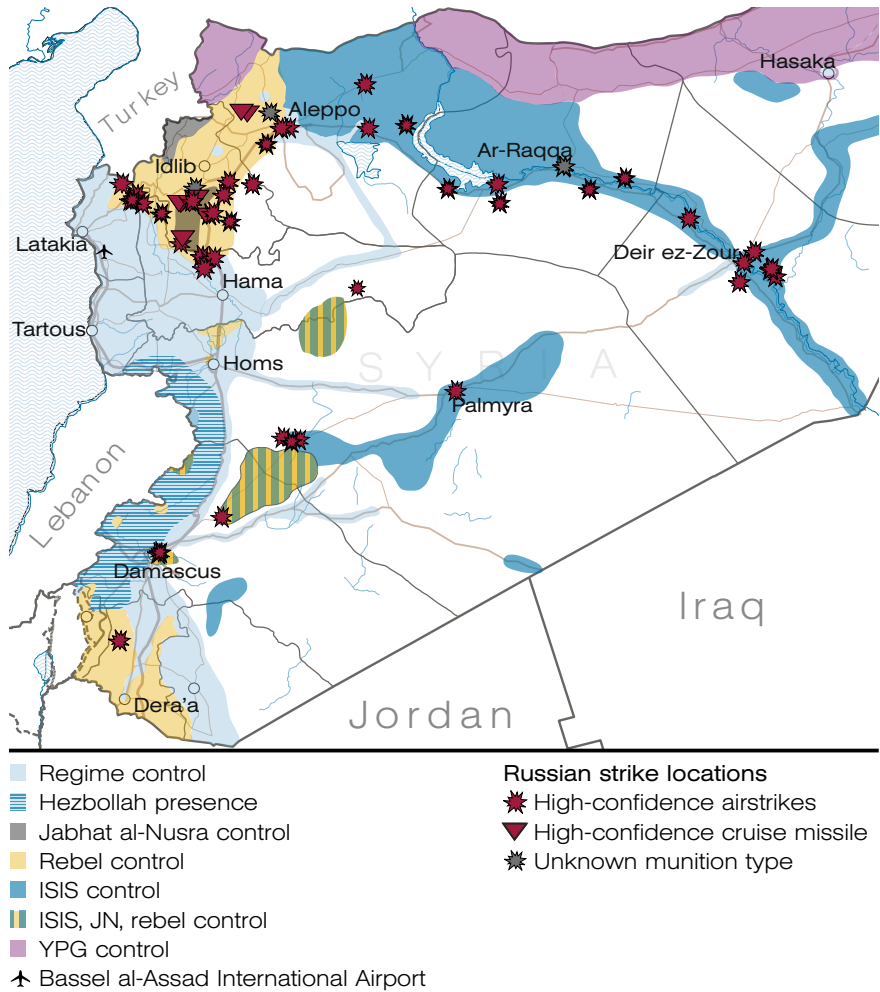
HOW DOES SYRIA'S POPULATION VIEW INTERNATIONAL COALITION AIR-STRIKES?

Opinion poll, July 2015, percent of population in a region under control of ...



Source: ORB International¹²

**RUSSIAN AIRSTRIKES
IN SYRIA (NOVEMBER
2015 SNAPSHOT)**



Source: Institute for the Study of War¹³

**THE TOLL OF THE
WAR IN SYRIA**

<p>13,500,000</p> <p>People in need of humanitarian assistance (December 2015)</p>	<p>54%</p> <p>Estimated unemployment rate in 2015</p>
<p>Ca. 25%</p> <p>Reduction of overall population size over the past 4 years, from 22 million to 16.6 million</p>	<p>20 years</p> <p>Reduction in life expectancy over the past 5 years</p>

Source: UN; OCHA; UNDP; SCPR¹⁴



FINAL DECLARATION ON THE RESULTS OF THE SYRIA TALKS IN VIENNA AS AGREED BY PARTICIPANTS

"Meeting in Vienna, on October 30, 2015, China, Egypt, the EU, France, Germany, Iran, Iraq, Italy, Jordan, Lebanon, Oman, Qatar, Russia, Saudi Arabia, Turkey, United Arab Emirates, the United Kingdom, the United Nations, and the United States ["the participants"] came together to discuss the grave situation in Syria and how to bring about an end to the violence as soon as possible.

The participants had a frank and constructive discussion, covering major issues. While substantial differences remain among the participants, they reached a mutual understanding on the following:

- 1 Syria's unity, independence, territorial integrity, and secular character are fundamental.
- 2 State institutions will remain intact.
- 3 The rights of all Syrians, regardless of ethnicity or religious denomination, must be protected.
- 4 It is imperative to accelerate all diplomatic efforts to end the war.
- 5 Humanitarian access will be ensured throughout the territory of Syria, and the participants will increase support for internally displaced persons, refugees, and their host countries.
- 6 Daesh, and other terrorist groups, as designated by the UN Security Council, and further, as agreed by the participants, must be defeated.
- 7 Pursuant to the 2012 Geneva Communique and UN Security Council Resolution 2118, the participants invited the UN to convene representatives of the Government of Syria and the Syrian opposition for a political process leading to credible, inclusive, non-sectarian governance, followed by a new constitution and elections. These elections must be administered under UN supervision to the satisfaction of the governance and to the highest international standards of transparency and accountability, free and fair, with all Syrians, including the diaspora, eligible to participate.
- 8 This political process will be Syrian led and Syrian owned, and the Syrian people will decide the future of Syria.
- 9 The participants together with the United Nations will explore modalities for, and implementation of, a nationwide ceasefire to be initiated on a date certain and in parallel with this renewed political process."

Source: EEAS¹⁵





Issues





Human Security: Refuge Refused?

“This is, in essence, a security crisis. For years now, Europeans have chosen to pretend that wars taking place in Syria and Libya were somebody else’s problem. It’s also a foreign policy crisis: At different times and for different reasons, all of the large European states – Britain, France, Italy, Germany – have blocked attempts to create a common foreign and defense policy, and as a result they have no diplomatic or political clout.”¹⁰

ANNE APPLEBAUM,
4 SEPTEMBER 2015

“In many regions war and terror prevail. States disintegrate. For many years we have read about this. We have heard about it. We have seen it on TV. But we had not yet sufficiently understood that what happens in Aleppo and Mosul can affect Essen or Stuttgart. We have to deal with that now.”¹¹

ANGELA MERKEL,
25 NOVEMBER 2015

Never since World War II have more people in the world been forced to flee their homes. In 2015, the UNHCR has found, the number of refugees and internally displaced persons has crossed the sad record mark of 60 million,¹ up from 42.5 million in 2011 and 51.2 million in 2013.² In Europe alone, more than 1 million refugees and migrants arrived in 2015, according to the International Organization for Migration.³ “For an age of unprecedented mass displacement, we need an unprecedented humanitarian response and a renewed global commitment to tolerance and protection for people fleeing conflict and persecution,”⁴ then UN High Commissioner for Refugees António Guterres pleaded in June 2015.

In early September, when harrowing images of a deceased Syrian toddler on a Turkish beach were widely featured in the international press, the plight of refugees finally moved to the top of the global political agenda and broke what Pope Francis had called “the globalization of indifference.”⁵

But beyond the outpouring show of support by countless volunteers in many European countries, the refugee crisis soon turned into a broader political crisis, particularly in Europe. The failure to respond collectively to the large influx of refugees raised fundamental questions about the EU’s functioning and its very identity. “If Europe fails on the question of refugees, [...] then it won’t be the Europe we imagine,” Angela Merkel warned her European partners.⁶ But while the German chancellor continued to hold on to her credo “Wir schaffen das” (“We can do it”), more and more EU countries started closing their borders, putting at risk the free movement within the Schengen area, one of the EU’s most fundamental achievements. In many EU member states, the debate on the fair distribution of refugees and their integration fuelled nationalist, populist, and anti-European Union sentiments. Some countries still object to accept even a tiny share of those fleeing war and terror and blame the German chancellor and her supporters for unilaterally opening the gates without having a clear strategy how to handle the influx.

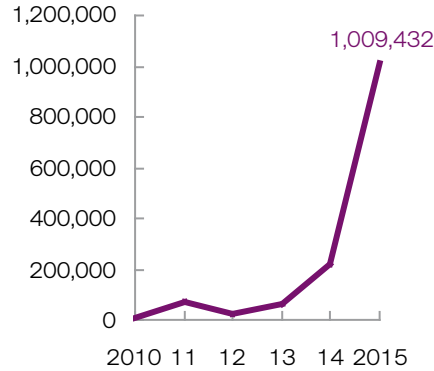
The refugee flows across the Mediterranean have dominated the headlines, but they only make up a small share of all those forcibly displaced worldwide. Overall, developing countries continue to carry the heaviest burden, with nearly 9 out of 10 refugees fleeing into states of the developing world.⁷ And almost two thirds of all those forced to flee stay within the borders of their own country.⁸

Forced displacement is thus a critical and global challenge. Beyond the necessary management of its short-term consequences, the refugee catastrophe requires a comprehensive response that takes on the root causes of forced migration. As UN Deputy Secretary-General Jan Eliasson stressed at a conference in Turkey, “our ability to respond to migration and refugee movements is being tested as never before.”⁹ So far, the world is collectively failing this test.

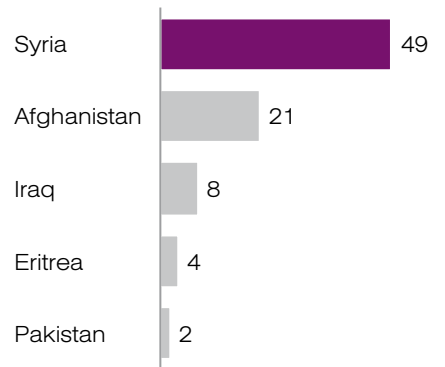


WHO IS TAKING THE SEA ROUTE TO EUROPE?

Number of refugees arriving via the Mediterranean sea



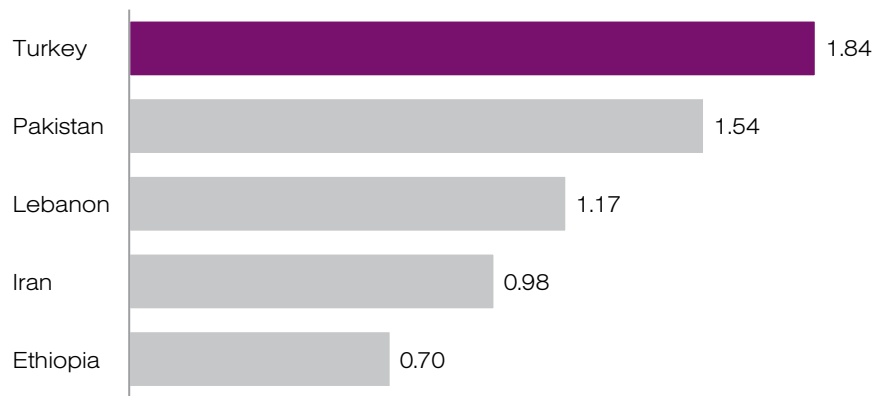
Top 5 nationalities of Mediterranean sea arrivals, in 2015, percent



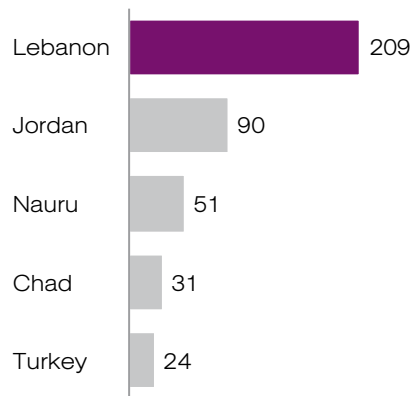
Source: UNHCR¹²

WHICH COUNTRIES HOST THE MOST REFUGEES?

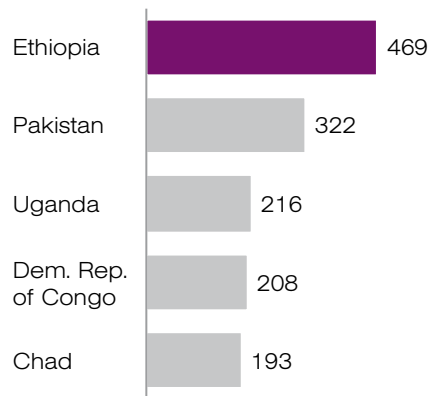
Number of refugees by host country, millions as of mid-2015



Number of refugees per 1,000 inhabitants as of mid-2015



Number of refugees per USD 1 GDP (PPP) per capita as of mid-2015



Source: UNHCR¹³



Health Security: The Plot Sickens

“[O]f all the things that could kill more than 10 million people around the world, the most likely is an epidemic stemming from either natural causes or bioterrorism.”⁹

**BILL GATES,
9 APRIL 2015**

“The emergence and spread of microbes with the potential to cause pandemics and the rise of drug resistance, including Antimicrobial Resistance (AMR), are significant concerns. [...] No single nation can act alone on such transnational threats.”¹⁰

**UK NATIONAL SECURITY
STRATEGY AND STRATEGIC
DEFENCE AND SECURITY
REVIEW 2015**

“What allowed the [Ebola] virus to rage out of control? What are the vulnerabilities that might let similar, or even worse, events threaten the world? [...] Most agree that the lack of public health capacities and infrastructures created the greatest vulnerability.”¹¹

**MARGARET CHAN,
13 AUGUST 2015**

Because of their threat to human health, to economies, and to the stability of states as a whole, lapses in health security can become issues of international security. The 2014 Ebola outbreak, which threatened to destabilize large parts of West Africa but was eventually contained after more than 11,000 deaths, was the latest major example of this.

Ever since the “Black Death” reduced Europe’s population by one-third in the 14th century, states have recognized the catastrophic threat diseases can pose and have sought to protect their inhabitants from deadly outbreaks.¹ Even so, the 1918 to 1920 Spanish influenza killed at least 50 million people,² the 1957 Asian flu some two million,³ and the 1968 pandemic about one million.⁴ In 2009, pandemic influenza (the H1N1 “swine flu”) infected up to 200 million people⁵ but was luckily of low lethality, with between 151,700 and 575,400 deaths.⁶ In addition to the human toll, major outbreaks can also have significant impacts on economies and pose a political risk to governments, particularly those in fragile states that fail to control the disease.

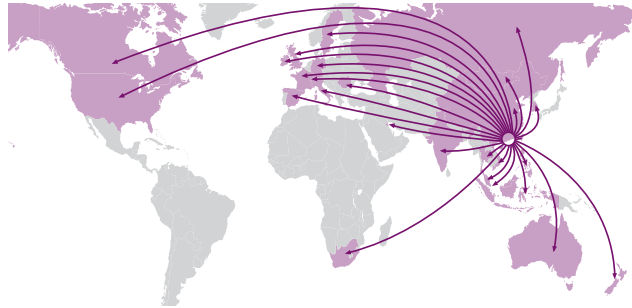
Today, risks to our collective health security include pandemics such as influenza; the increasing failure of antibiotics to treat infections; bioterrorism; and polio, which is almost eradicated from nature but remains in two fragile states and continues to threaten polio-free countries (as happened in 2003/4 when it spread from Northern Nigeria to 19 other countries).⁷ These risks are exacerbated by an increase in refugee and conflict-affected populations, which have restricted access to health services; climate change, which is associated with a spread of severe dengue fever outbreaks from seven to 100 countries by increasing the mosquito habitat; and demographic change that leads to closer human-animal interaction and the development of new influenza strains. These risks are further magnified by increased air travel and an increasing global shortage of healthcare workers.

Moreover, many states lack the necessary systems, required by the International Health Regulations, that would enable them to identify and manage infectious disease within their borders so as not to pose a risk beyond them. This applies, in particular, to states affected by or recently emerged from conflict, as was the case with Ebola in West Africa. The international spread of Ebola was relatively easily contained because the disease is transmitted only by contact with patient body fluids. But this is not the case with airborne diseases such as flu. These diseases require strong health systems that provide access to health services and that can rapidly detect and respond to an outbreak, thus limiting the risk of international spread. As German Chancellor Merkel said last year, “increasingly the health of one person is also the health of others.”⁸ Because they cannot be predicted with certainty, outbreaks are like other critical security risks – they occur when unexpected, and the best defense is being prepared.



**LOCAL ORIGIN,
GLOBAL SPREAD: THE
SARS PANDEMIC**

The Severe Acute Respiratory Syndrome (SARS) outbreak, 2002/03



8,096

Infected people from 26 countries

774

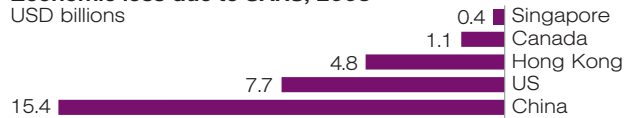
Deaths from 9 countries

USD 40bn

Cost of SARS to the global economy in 2003

Economic loss due to SARS, 2003

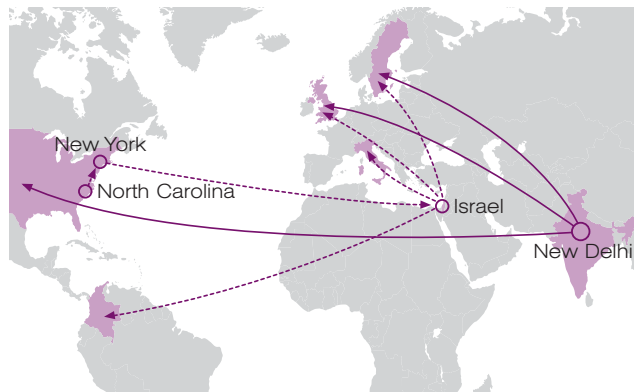
USD billions



Source: Chatham House; WHO; Lee and McKibbin, Brookings¹²

**PROBLEM TODAY,
CRISIS TOMORROW:
THE GLOBAL IMPACT
OF ANTIMICROBIAL
RESISTANCE (AMR)**

The spread of two antibiotic resistant bacteria since 1996



Annual global deaths attributable to AMR

0.7m

2014

10m

2050 projected

USD 100tn

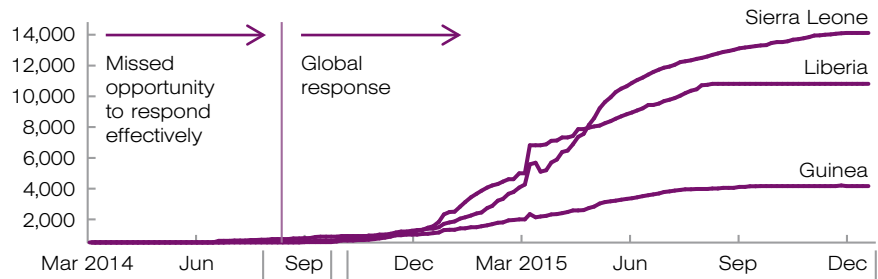
Potential impact on world GDP to 2050

— New Delhi metallo-β-lactamase (NDM)
 - - - Klebsiella pneumoniae carbapenemase (KPC)

Source: Chatham House; Nature; Review on Antimicrobial Resistance¹³

**THE CONSEQUENCES
OF A DELAYED
RESPONSE:
THE 2014/15 EBOLA
CRISIS**

Reported Ebola cases in West Africa



8 Aug 2014
WHO declares a "Public Health Emergency of International Concern"

18/19 Sep 2014
UN Security Council: outbreak a "threat to international peace and security"; UNMEER mission established

Oct/Nov 2014
UK/US/French troops commence operations

Dec 2015
Zero cases in West Africa

Source: Chatham House; CDC¹⁴





Climate Security: The Heat is on

“Combating global warming is [...] an essential condition to provide the whole world with food and water, to save biodiversity and protect health, to combat poverty and mass migration, to discourage war and foster peace, and, at the end of the day, to give sustainable development and life a chance.”⁷

LAURENT FABIUS,
30 NOVEMBER 2015

“Climate change is an urgent and growing threat to our national security, contributing to increased natural disasters, refugee flows, and conflicts over basic resources like food and water,”¹ the 2015 US National Security Strategy proclaimed. In addition to the US, about 70 percent of nations worldwide explicitly qualify climate change as a national security concern.² As a 2015 Pew survey revealed, climate change tops the list of issues that citizens around the world are “very concerned” about (46 percent).³

Climate change is a very particular kind of threat. For low-lying countries, it is an existential danger. To most societies, it is a threat multiplier: An increase in extreme meteorological events, droughts, and land degradation as well as the sea-level rise can and do exacerbate political fragility and resource disputes, increase economic hardship and mass migrations, and magnify ethnic tensions and civil strife. Economic costs have also been rising. Allianz, an insurance company, found that nine of the ten largest insured flood losses have occurred in the past 15 years. Losses from floods will further increase, especially in the fast-growing coastal cities of Asia. In 2005, the top ten cities exposed to coastal flooding were all in the US, the Netherlands, and Japan. In 2070, eight of the top ten are projected to be in Asia.⁴

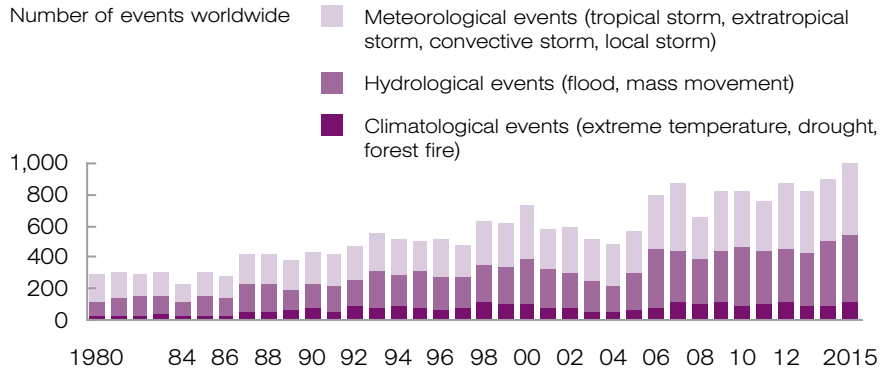
The landmark climate deal signed in Paris in December 2015, a big achievement of French diplomacy, reflects a shared global sense of urgency – and represents a major shift in approaching big issues. “The new kind of global governance that the Paris agreement exemplifies, which substitutes rolling processes for fixed rules, is far better suited to the kinds of global problems we face today,” Anne-Marie Slaughter argues.⁵ But implementation is key – and uncertain.

KEY PASSAGES OF THE PARIS AGREEMENT (DECEMBER 2015)

- “This Agreement [...] aims to strengthen the global response to the threat of climate change, [...] including by: Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels.”
- “Each Party shall communicate a nationally determined contribution every five years.”
- “Parties aim to reach global peaking of greenhouse gas emissions as soon as possible, recognizing that peaking will take longer for developing country Parties.”
- “[D]eveloped country Parties should continue to take the lead in mobilizing climate finance.”
- “[A]n enhanced transparency framework for action and support, with built-in flexibility which takes into account Parties’ different capacities and builds upon collective experience is hereby established.”
- “Parties recognize the importance of averting, minimizing and addressing loss and damage associated with the adverse effects of climate change, including extreme weather events and slow onset events.”⁶



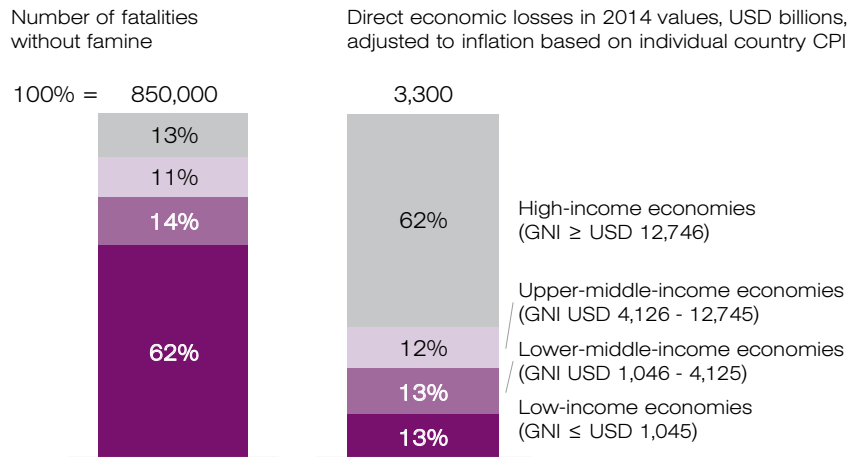
HOW HAS THE NUMBER OF WEATHER-RELATED LOSS EVENTS CHANGED OVER TIME?



Note on the data: The increasing number of registered events over time is to a large extent influenced by improvements in reporting of smaller loss events over the period displayed. While the influence of climatic changes on the growing numbers has so far been of lesser effect than the improved reporting, its relevance is increasing.

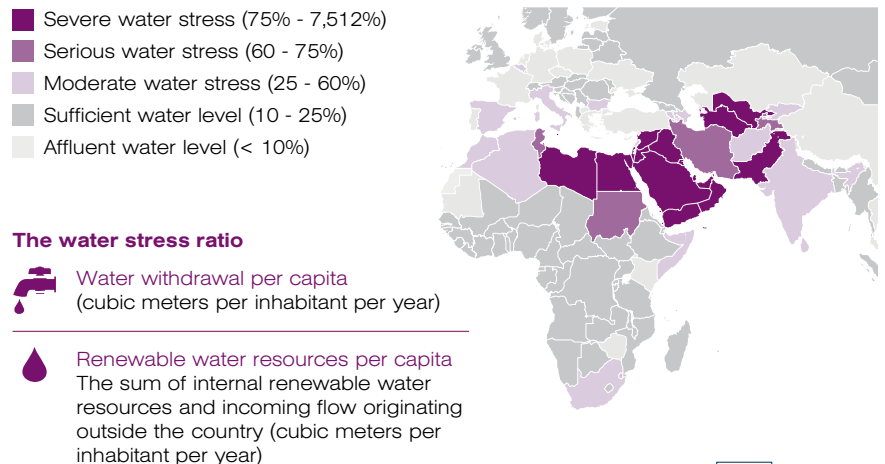
Source: Munich Re, NatCatSERVICE⁸

WHO IS MOST AFFECTED BY WEATHER-RELATED LOSS EVENTS?



Source: Munich Re, NatCatSERVICE⁹

A REGION UNDER WATER STRESS?



Source: Oxford Analytica¹⁰





Future Warfare: Race Against the Machines

“In fact, the next prominent terrorist organization will be more likely to have extensive digital operations than control physical ground.”⁹

**JARED COHEN,
NOVEMBER 2015**

“You’ll also have a high degree of human-machine collaboration, like free-style chess, in which machines, using big data analytics and advanced computing, will inform human decision makers on the battlefield to make better decisions than humans can do alone or machines can do alone. [...] So the future of combat, we believe, is going to be characterized by a very high degree of human-machine symbiosis [...]”¹⁰

**BOB WORK,
22 JUNE 2015**

Some analysts have long argued that future conflict would be fought in the cyber realm. Others have objected and pointed out that few known cyber attacks have actually damaged physical infrastructure.¹ Nor have cyber attacks taken a direct toll on human lives. Arguably, so far, the most important damage cyber attacks have done has been the breach of government, corporate, or private data. Yet recent news reports on an attack against a Ukrainian utility, which reportedly took down a major power grid and affected 700,000 households,² underline the need to review network defenses against possible attacks of this sort.

While Ukrainian authorities have blamed Russia for the attacks, attribution is difficult even though states have become better at identifying perpetrators.³ But as efforts to deter them from using cyber weapons often remain futile, states may become increasingly willing to engage in cyber arms control.⁴ In an important first step, the United States and China agreed in September of 2015 “that neither country’s government will conduct or knowingly support cyber-enabled theft of intellectual property, including trade secrets or other confidential business information, with the intent of providing competitive advantages to companies or commercial sectors.”⁵ But agreements like this – if they are adhered to at all – do not cover government data or digital weapons.

States and nonstate actors have also pushed for the regulation of lethal autonomous weapons systems (“LAWS”), or what the public often refers to as “killer robots.” Several armies already rely on robots to dispose of explosives, while numerous police departments have bought armed robots and some companies have developed automated turrets capable of identifying, tracking, and shooting targets.⁶ US drones, remotely controlled by soldiers in cubicles in a Nevada desert, fly attacks on targets in Yemen or Pakistan. Progress made in artificial intelligence might eventually result in machines acting on the battlefield without any human control or approval.

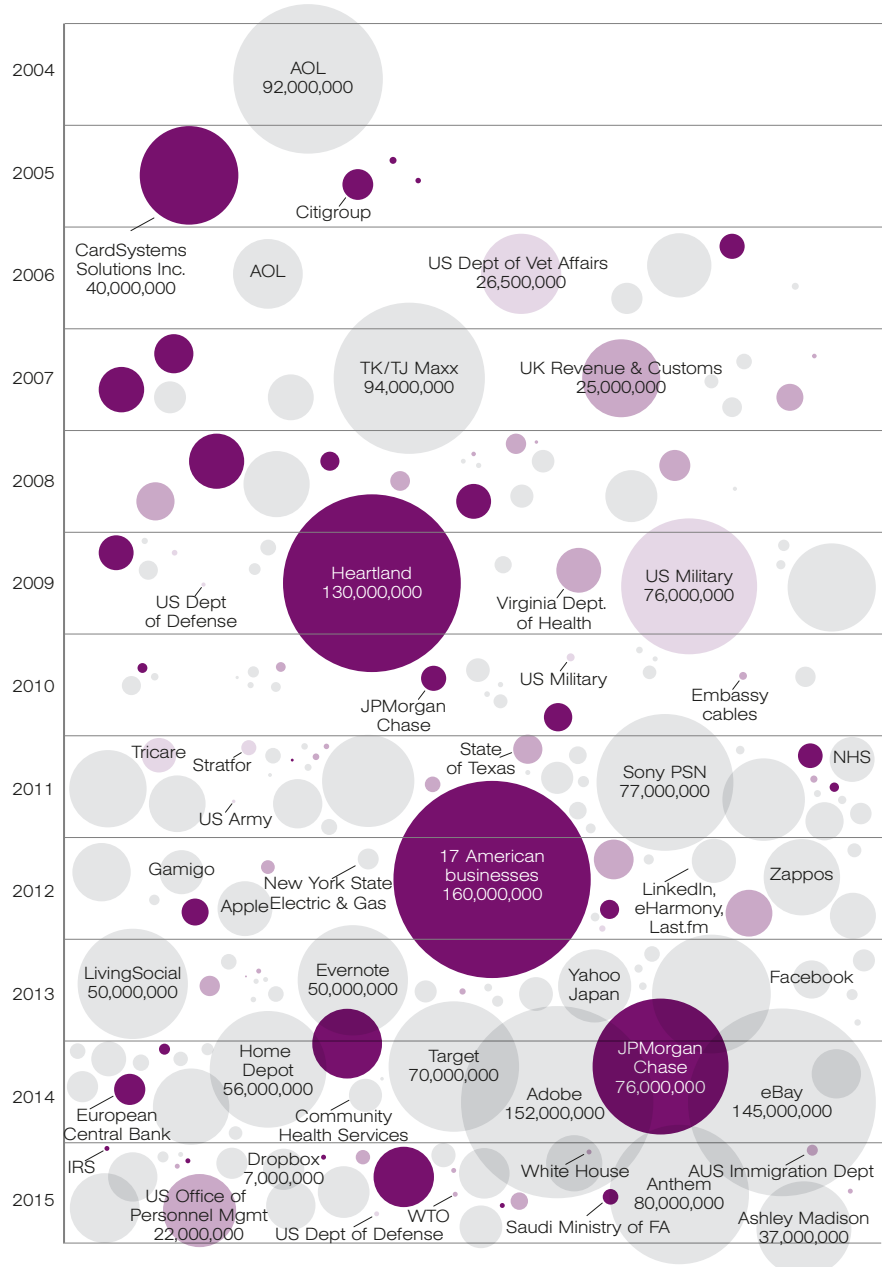
The advent of such “killer robots” comes with profound ethical dilemmas. What do they mean for humanitarian law? Just as physicists warned about nuclear weapons in the 1940s, experts in artificial intelligence urge policymakers to take action in order to prevent an arms race in this field. While some experts maintain that increasing automation may save human lives (if it remains at human discretion),⁷ others oppose it in general. The United Nations, within the framework of the Convention on Certain Conventional Weapons (CCW), has begun to address the issue.⁸ But will humankind win the race against the machines?



**SELECTED MEGA
DATA BREACHES**

Bubble size according to number of records lost

- Financial
- Military
- Government
- Others

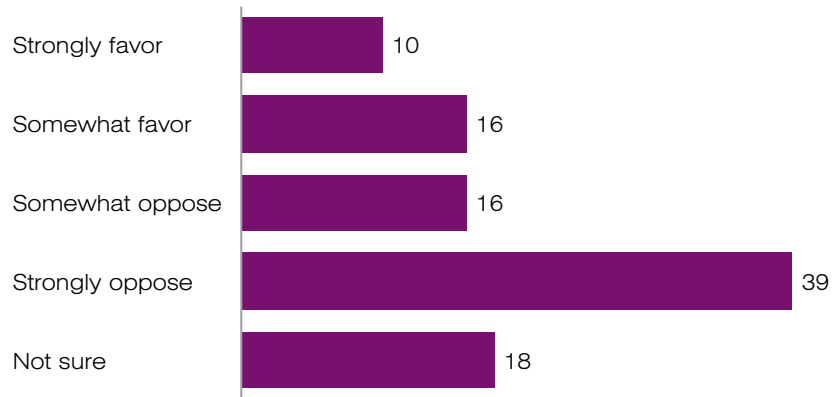


Source: Center for Security Studies (ETH Zurich)¹¹



WHAT AMERICANS THINK: HOW DO YOU FEEL ABOUT THE TREND TOWARD USING COMPLETELY AUTONOMOUS ROBOTIC WEAPONS IN WAR?

Opinion poll, May 2015, percent



Source: Carpenter, The Duck of Minerva¹²

EXCERPTS FROM "AUTONOMOUS WEAPONS: AN OPEN LETTER FROM AI & ROBOTICS RESEARCHERS" (JULY 2015)

"Autonomous weapons select and engage targets without human intervention. [...] Artificial Intelligence (AI) technology has reached a point where the deployment of such systems is – practically if not legally – feasible within years, not decades, and the stakes are high: autonomous weapons have been described as the third revolution in warfare, after gunpowder and nuclear arms.

Many arguments have been made for and against autonomous weapons, for example that replacing human soldiers by machines is good by reducing casualties for the owner but bad by thereby lowering the threshold for going to battle. The key question for humanity today is whether to start a global AI arms race or to prevent it from starting. If any major military power pushes ahead with AI weapon development, a global arms race is virtually inevitable, and the endpoint of this technological trajectory is obvious: autonomous weapons will become the Kalashnikovs of tomorrow. Unlike nuclear weapons, they require no costly or hard-to-obtain raw materials, so they will become ubiquitous and cheap for all significant military powers to mass-produce. It will only be a matter of time until they appear on the black market and in the hands of terrorists, dictators wishing to better control their populace, warlords wishing to perpetrate ethnic cleansing, etc. Autonomous weapons are ideal for tasks such as assassinations, destabilizing nations, subduing populations and selectively killing a particular ethnic group. We therefore believe that a military AI arms race would not be beneficial for humanity. There are many ways in which AI can make battlefields safer for humans, especially civilians, without creating new tools for killing people. [...]

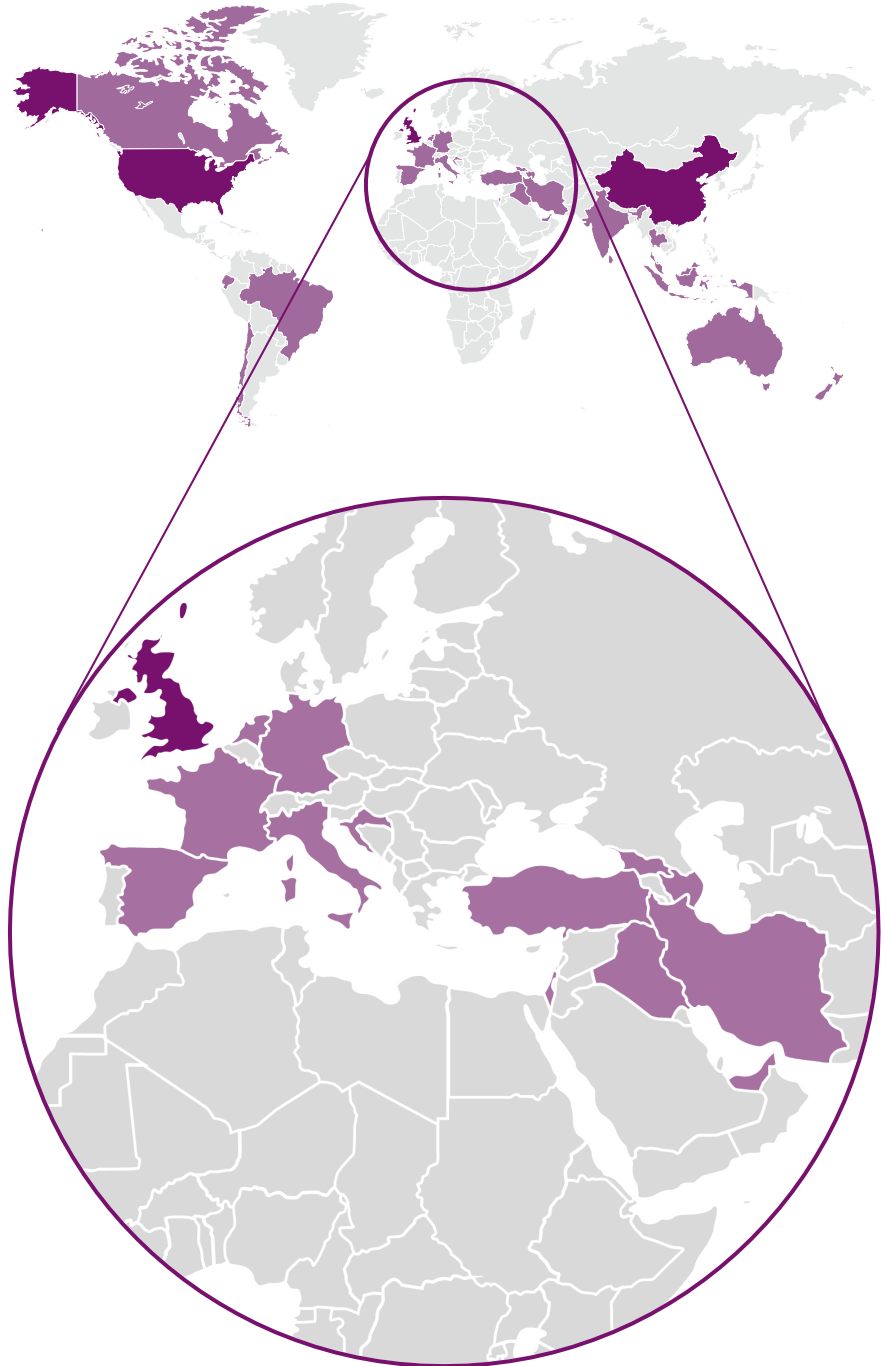
In summary, we believe that AI has great potential to benefit humanity in many ways, and that the goal of the field should be to do so. Starting a military AI arms race is a bad idea, and should be prevented by a ban on offensive autonomous weapons beyond meaningful human control."

Source: Future of Life Institute¹³



WHICH COUNTRIES POSSESS MEDIUM-TO HIGH-ALTITUDE, LONG-ENDURANCE DRONES?

- Countries possessing Tier II drones: medium-altitude, long-endurance drones like the Reaper or the Predator
- Countries possessing Tier II and Tier II+ drones: high-altitude, long-endurance drones like the Global Hawk



Source: New America¹⁴

>2,000,000

Estimated number of commercial/consumer UAVs produced worldwide in 2015
MCKINSEY ESTIMATE

Future warfare: Is the proliferation of civilian UAVs driving the military?

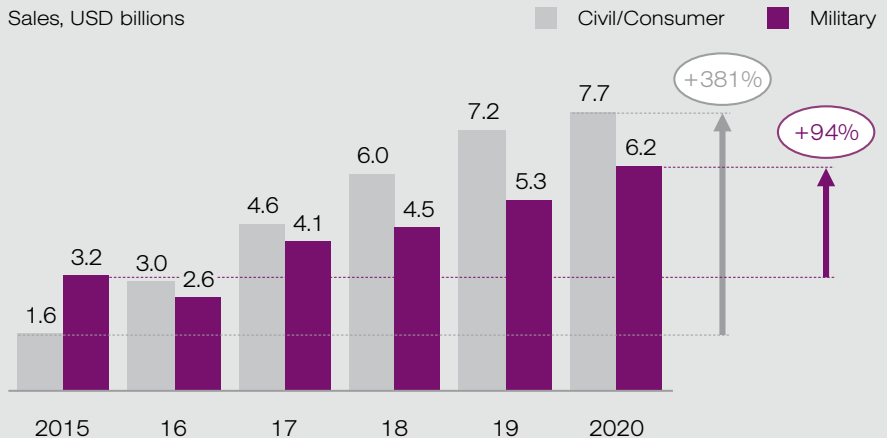
The public tends to associate future warfare and autonomous weaponry with unmanned air vehicles (UAVs), especially medium-sized and large drones. These military UAVs were traditionally developed and pushed by defense players, who cracked the massive costs of initial research. However, thanks to advances in computing, sensors, autonomous flight functionality, propulsion, and battery technology, small UAVs are on the rise. Civilian applications are booming, and the commercial industry is taking the lead in small UAV development. Today, more than 3.5 million consumer UAVs fill the skies. Small civilian UAVs with payloads of 5 kg and more can be purchased for as little as USD 2,000.¹⁵ As their numbers grow, the economies of scale of mass production will further lower costs. The boom in civilian UAVs is also accelerating research and innovation.

As a result, technology that was previously only available to high-tech armies can now be obtained by every player on the battlefield. Civilian UAVs operated for military or especially paramilitary purposes could increasingly find their way into conflict situations, resulting in a balancing of tactical reconnaissance and surveillance capabilities. This situation will reduce the competitive advantage of high-tech armies and create potential threats to public air space.

Weapons based on civilian and consumer UAVs are at the cusp of widespread proliferation. Security providers and armed forces need to understand what civil innovations and products are relevant for their applications, as well as what threats low-priced civilian UAVs pose in the wrong hands. Just how critical is UAV proliferation, and how can UAV defense capabilities evolve in response? Regulators and policymakers, in turn, must determine the right level of control and regulation, including incentives that appropriately balance innovation, growth, and safety. In addition to identifying necessary regulations today, decision makers will need to ensure that policy keeps up with the speed of technological advancement.

Source: McKinsey

HOW DOES GLOBAL UAV PRODUCTION GROW?



Source: TEAL Group; McKinsey¹⁶

This page was prepared by MSC's knowledge partner McKinsey & Company

40.5 bn

7.1 bn

0.2 bn

Estimated 2015 IT security spending of the US, Germany, and Nigeria respectively, in USD¹⁷

KABLE BUSINESS INTELLIGENCE

Future warfare: What do cyber attacks mean for emerging nations?

Ownership of connected devices grew at a double-digit rate last year. As information technology permeates every aspect of life, cyber attacks become more common. Attacks targeting not only on commercial data but also critical national infrastructure (CNI) are a real possibility. Industrialized nations invest billions of dollars into cyber capabilities, but emerging nations on the other side of the “cyber divide” are unable to devote similar amounts as a percentage of GDP, let alone in absolute terms.

The development of emerging-market countries depends on reliable access to basic CNI: services such as electricity, water, public security, or banking. The underlying systems for these services rely heavily on IT. As the case of a hacked mobile payment system in Kenya shows, solutions in the new connected world may be less resilient than traditional ones, making them attractive targets for attackers.

CYBER SECURITY FOR EMERGING COUNTRIES – WHAT DOES THE ENVIRONMENT LOOK LIKE?

Critical national infrastructure

Supply networks – embedded systems

Characteristics

- Legacy hardware, outdated security patches, no spare capacity for new security layers

Emerging-economy-specific

- Underfunded; rarely leading technology
- Often poorly configured and maintained

Financial services – transactional systems and payment engines

Characteristics

- Usually more modern and better maintained than supply networks
- Small outages can have devastating effects

Emerging-economy-specific

- Mobile payment often rests on communication infrastructure, different class of resilience than pure payment systems

Public sector – administrative systems

Characteristics

- High levels of technical protection
- Dual use of military-grade technology

Emerging-economy-specific

- Systems focused on police and intelligence purposes
- Systems for protection of public order underprotected

Changing nature of the threat

New types of attackers

1. State-sponsored actors: cyber armies with ample resources and skills
2. Terrorists: emerging threat with limited resources and skills so far – currently mainly online for propaganda and recruiting, but this is likely to change within 5 years
3. Political hacktivists: high on skill and limited on resources – so far have not damaged CNI, but focused on defacing and DDoS attacks

New types of attacks

1. Advanced persistent threat – silent extraction or compromise of data; ability to destroy system, e.g., police network, if necessary
2. Distributed denial of service (DDoS) – outage caused by overload, e.g., of ATM network
3. Compromised patch attack – particularly suitable for supply networks such as power grids
4. Brute-force attacks to penetrate poorly protected systems across all sectors
5. Phishing for credentials to undermine the trust in financial system, e.g., micro-payments

Source: McKinsey

This page was prepared by MSC's knowledge partner McKinsey & Company





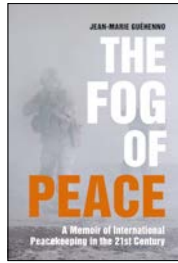
Food for Thought





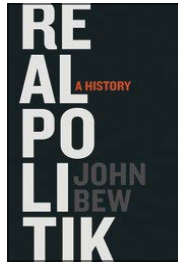
Books

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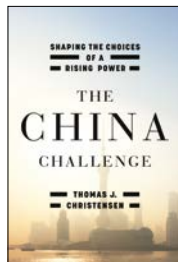
JEAN-MARIE GUÉHENNO: *The Fog of Peace*
A Memoir of International Peacekeeping in the 21st Century

Drawing on his vast practical knowledge and experience on the ground, the former head of UN peacekeeping operations offers an unparalleled and at times critical first-hand account of the opportunities and uncertainties surrounding 21st century peacekeeping activities.



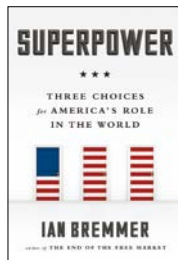
JOHN BEW: *Realpolitik*
A History

This eye-opening book recasts and disentangles the origins of the widely misused and ideologically overloaded term “realpolitik.” John Bew helps readers better understand this critical concept that continues to shape foreign-policy debates around the world.



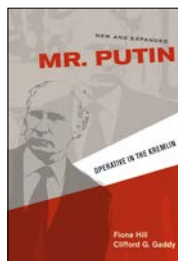
THOMAS J. CHRISTENSEN: *The China Challenge*
Shaping the Choices of a Rising Power

China expert, scholar, and practitioner Thomas J. Christensen calls for a balanced strategy towards the rising superpower China. His recipe to deal with the rise of China is based on “an unusual mix of strength and toughness on the one hand and a willingness to reassure and listen to the Chinese on the other.”



IAN BREMMER: *Superpower*
Three Choices for America's Role in the World

Ian Bremmer sketches out three scenarios for America's future role in the world: an “Independent America,” a “Moneyball America,” and an “Indispensable America.” He lays out the case both for and against all three – and asks his readers: what role do you think America should play in the world?



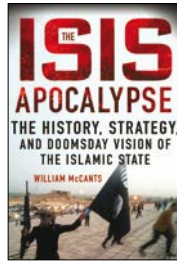
FIONA HILL/CLIFFORD G. GADDY: *Mr. Putin*
Operative in the Kremlin

Russia experts Fiona Hill's and Clifford Gaddy's “contextual portrait” of Putin's personal and political persona corrects wide-spread misconceptions about the current Russian regime of personalized power. The updated volume, questioning the regime's long-term viability, marks an important addition to the debate about Russia's future.



ANDERS ÅSLUND: *Ukraine*
What Went Wrong and How to Fix It

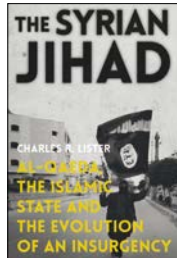
In his timely analysis, economist Anders Åslund traces Ukraine's troublesome evolution as a market economy and draws up a detailed and cautiously optimistic road map for the war-torn country. He makes the case for “radical, comprehensive, and front-loaded reforms” bolstered by broad Western economic assistance.



WILLIAM MCCANTS: **The ISIS Apocalypse**

The History, Strategy, and Doomsday Vision of the Islamic State

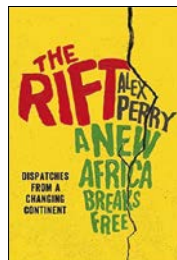
Drawing on original documents in Arabic, including emails and strategy documents, McCants analyzes the Islamic State's success in attracting followers, conquering parts of Iraq and Syria, and becoming the most feared jihadist group in the world.



CHARLES R. LISTER: **The Syrian Jihad**

Al-Qaeda, the Islamic State and the Evolution of an Insurgency

Based on in-depth research among Syrian insurgents, the author analyzes the emergence of jihadist groups in Syria since the beginning of the uprising against Bashar al-Assad's regime. He traces their development, the sources of their strength and their place within the larger world of jihadism.



ALEX PERRY: **The Rift**

A New Africa Breaks Free

Painting a vivid picture, Perry takes his readers on a journey through today's Africa. Through numerous anecdotes, he criticizes the inefficiency and self-interest of Western assistance and uncovers a rift between Africa's rise and a world unwilling to comprehend this rise – an important addition to the understanding of the fastest-growing continent.



CHRISTOPHER COKER: **Future War**

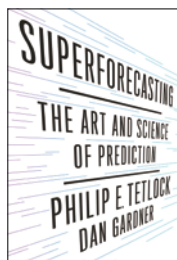
In this thoughtful essay, Christopher Coker invites readers to think about potential shapes and forms armed conflict might take in the future. Bringing together insights from philosophy, science, and popular culture, Coker offers, as he modestly puts it, "a few speculations about what the future may have in store."



MICAH ZENKO: **Red Team**

How to Succeed By Thinking Like the Enemy

Uncovering the successes and failures of "red teaming," Micah Zenko shows how to develop winning strategies by conducting vulnerability probes, simulations, and alternative analyses. The book is an original take on how to improve one's performance by welcoming a view from outside – for policymakers and business leaders alike.



PHILIP E. TETLOCK/DAN GARDNER: **Superforecasting**

The Art and Science of Prediction

Based on the findings of Tetlock's 20-year study, which singled out a non-expert group of "superforecasters" who persistently outperformed renowned specialists, the book suggests that foresight is not a gift but stems from a certain way of thinking. It also provides practical advice on how to improve and cultivate one's own prediction skills.



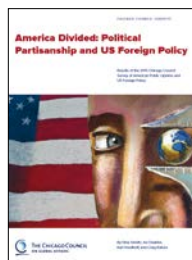
Reports



RAND CORPORATION: The Islamic State We Knew
Insights Before the Resurgence and Their Implications
 What was known about the Islamic State before its resurgence? Drawing on the work of various analysts and researchers as well as IS documents, this report analyzes what publicly available information could have taught us about the terrorist group by the end of 2011 and how these insights can help counter it today.



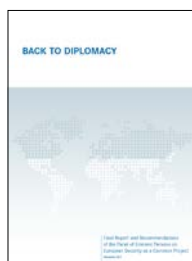
ADELPHI, INTERNATIONAL ALERT, THE WILSON CENTER, EUISS: A New Climate for Peace
Taking Action on Climate and Fragility Risks
 This report, commissioned by the G7, identifies seven climate-fragility risks expected to pose serious threats to the stability of states and societies. Based on a detailed assessment of existing policies, the authors make the case for concrete action by the G7 towards greater resilience.



THE CHICAGO COUNCIL ON GLOBAL AFFAIRS: America Divided: Political Partisanship and US Foreign Policy
 US public opinion on specific foreign policy issues is often divided along party lines, the 2015 Chicago Council survey finds. According to the authors of this report, this can mainly be traced back to differing interpretations of how the US can best advance its interests in an increasingly volatile world.



ATLANTIC COUNCIL: Hiding in Plain Sight
Putin's War in Ukraine
 As the fighting in Eastern Ukraine persists, the Kremlin continues to deny its involvement in the hostilities. Based on open source information, the authors of this Atlantic Council report provide clear evidence of Russia's direct military role in the war in Ukraine and call for scaled-up Western resources towards unveiling and countering the Russian threat.



PANEL OF EMINENT PERSONS: Back to Diplomacy
Final Report of the Panel of Eminent Persons on European Security as a Common Project
 This report, mandated by the OSCE troika, calls for a diplomatic process that systematically tackles key problems of the European peace order and recommends short- and medium-term measures to reconsolidate European security, including enhanced agreements to avoid military accidents.



INTERNATIONAL CRISIS GROUP: Iran After the Nuclear Deal
 The nuclear accord with Iran was undoubtedly one of the most significant foreign policy events in 2015. But what it actually means for domestic politics in Iran is far from clear. According to this report, any changes in Iran will likely be arduous, slow, and modest. The authors warn that "undue external interference" could threaten to undermine the domestic reform process.



DANISH INSTITUTE FOR INTERNATIONAL STUDIES: **Preparing for NATO's Warsaw Summit**

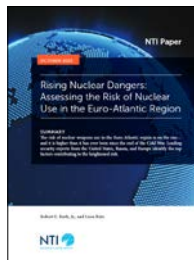
The Challenges of Adapting to Strategic Change

In her new report, Trine Flockhart urges NATO leaders to dare to think big and out of the box on NATO's future role. With a view to the upcoming summit in Warsaw, she suggests that NATO's most urgent task is to prepare for the coming multi-order world and assesses how well it is positioned to do so.



MCKINSEY & COMPANY: **McKinsey on Government** Special Issue: Defense

Although geopolitical tensions have increased this year, the decline in defense spending in core Western markets is accelerating, as this McKinsey on Government report points out. In several analyses and interviews with select senior officials, the report sheds light on these and other major trends in the defense sector.



NUCLEAR THREAT INITIATIVE: **Rising Nuclear Dangers: Assessing the Risk of Nuclear Use in the Euro-Atlantic Region**

According to this NTI report, the risk of nuclear weapons use in the Euro-Atlantic region today is higher than at any point since the end of the Cold War. The report explores ten key factors that significantly contribute to this heightened risk, including a deficit of trust and domestic political imperatives.



STIFTUNG WISSENSCHAFT UND POLITIK: **Geo-economics Meets Geopolitics**

China's New Economic and Foreign Policy Initiatives

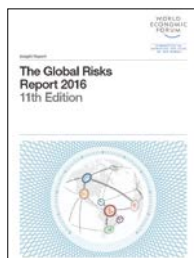
China's launch of various economic and foreign policy initiatives is likely to have implications far beyond East Asia, the two authors of this SWP report argue. Besides giving an overview of the major initiatives, the report also provides recommendations for a European response.



THE GERMAN MARSHALL FUND OF THE UNITED STATES: **Longstanding Partners in Changing Times**

Report of the Task Force on the Future of German-American Relations

More than ever, transatlantic relations matter. This report by an interdisciplinary group of experts reassesses the fundamentals of the transatlantic relationship and makes recommendations for strengthening bilateral ties.



WORLD ECONOMIC FORUM: **Global Risks 2016**

Drawing on the perspectives of numerous experts and decision makers, the 11th edition of the Global Risks report by the World Economic Forum sheds light on today's global risk landscape. Beyond mapping the most likely and impactful risks, such as extreme weather events and interstate conflict, the report also looks at their causes and potential solutions.¹





Events





Events 2016

JANUARY

- 28 [MSC KICKOFF](#) – Berlin, Germany
- 24-31 [AU SUMMIT](#) – Addis Ababa, Ethiopia

FEBRUARY

- 10-11 [NATO DEFENSE MINISTERS MEETING](#) – Brussels, Belgium
- 12-14 [MUNICH SECURITY CONFERENCE 2016](#) – Munich, Germany
(incl. various MSC Roundtables)
- 18-19 [EUROPEAN COUNCIL MEETING](#) – Brussels, Belgium
- 26 [ELECTIONS FOR THE IRANIAN PARLIAMENT AND ASSEMBLY OF EXPERTS](#) – Iran

MARCH

- 17-18 [EUROPEAN COUNCIL MEETING](#) – Brussels, Belgium
- 31-1 April [NUCLEAR SECURITY SUMMIT](#) – Washington D.C., United States

APRIL

- 14-15 [MSC CORE GROUP MEETING](#) – Addis Ababa, Ethiopia
(incl. various MSC Roundtables)
- 16-17 [TANA HIGH-LEVEL FORUM ON SECURITY IN AFRICA](#) – Bahir Dar, Ethiopia

MAY

- 19-20 [NATO FOREIGN MINISTERS MEETING](#) – Brussels, Belgium
- 23-24 [WORLD HUMANITARIAN SUMMIT](#) – Istanbul, Turkey
- 26-27 [G7 SUMMIT](#) – Shima, Japan

JUNE

- 3-5 [IISS SHANGRI-LA DIALOGUE](#) – Singapore
- 23-24 [SHANGHAI COOPERATION ORGANISATION SUMMIT](#) – Tashkent, Uzbekistan
- 23-24 [EUROPEAN COUNCIL MEETING](#) – Brussels, Belgium
- 30-2 July [MUNICH YOUNG LEADERS REUNION](#) – Warsaw, Poland

JULY

- 7 [MSC EUROPEAN DEFENCE ROUNDTABLE](#) – Warsaw, Poland
- 8-9 [NATO SUMMIT](#) – Warsaw, Poland
- 15-16 [ASEM SUMMIT](#) – Ulaanbaatar, Mongolia



AUGUST	tbd	MSC CYBER SECURITY SUMMIT – United States
	29	MSC ENERGY SECURITY ROUNDTABLE – Stavanger, Norway
SEPTEMBER	4-5	G20 SUMMIT – Hangzhou, China
	6-9	ASEAN SUMMIT – Vientiane, Laos
	20	UNITED NATIONS GENERAL ASSEMBLY, OPENING DATE OF THE GENERAL DEBATE – New York, United States
OCTOBER	9-11	WORLD HEALTH SUMMIT – Berlin, Germany
	20-21	EUROPEAN COUNCIL MEETING – Brussels, Belgium
	tbd	MSC CORE GROUP MEETING – Beijing, China
NOVEMBER	7-18	UNITED NATIONS CLIMATE CHANGE CONFERENCE – Marrakesh, Morocco
	8	US PRESIDENTIAL ELECTION – United States
DECEMBER	4-6	MUNICH STRATEGY FORUM – Elmau, Germany
	8-9	OSCE MINISTERIAL COUNCIL – Hamburg, Germany
	15-16	EUROPEAN COUNCIL MEETING – Brussels, Belgium
OUTLOOK ON 2017	Feb	MUNICH SECURITY CONFERENCE – Munich, Germany 3-5 February 2017





Acknowledgments





Acknowledgments

THIS REPORT DRAWS ON THE RESEARCH AND INPUT BY MANY GENEROUS INSTITUTIONS AND THEIR STAFF. THE MUNICH SECURITY CONFERENCE WOULD LIKE TO THANK:

Airwars.org, Allianz SE, the Armed Conflict Location & Event Data Project, the Brookings Institution, the Carnegie Endowment for International Peace, the Center for International and Security Studies at Maryland, the Center for International Peace Operations, the Center for Security Studies at ETH Zurich, the Center on International Cooperation, Chatham House, Eurasia Group, the European Leadership Network, Foreign Affairs, Gallup, the German Federal Foreign Office, the Global Public Policy Institute, the Heidelberg Institute for International Conflict Research, the Hertie School of Governance, IHS Jane's, the Institute for the Study of War, the International Crisis Group, the International Institute for Strategic Studies, the International Organization for Migration, the Levada Center, McKinsey & Company, the Mercator Institute for China Studies, Merck, Munich Re, New America, the Office of the United Nations High Commissioner for Refugees, ORB International, Oxford Analytica, the Pew Research Center, the RAND Corporation, the Soufan Group, the Tana High-Level Forum on Security in Africa, the United Nations Department for Economic and Social Affairs, the Wilson Center, and the World Economic Forum.

THE MUNICH SECURITY CONFERENCE WOULD ALSO LIKE TO ACKNOWLEDGE THE FOLLOWING INDIVIDUALS FOR THEIR SIGNIFICANT SUPPORT:

Philip Angelides (Chatham House), Thorsten Benner (GPPi), J.M. Berger (George Washington University), Jessica Brandt (Brookings), Ian Bremmer (Eurasia Group), Craig Caffrey (IHS Jane's), Andrea Carboni (ACLEd), Charli Carpenter (UMass Amherst), Björn Conrad (MERICS), Carlos Oliver Cruz (IOM), Ivo Daalder (Chicago Council), Nick de Larrinaga (IHS Jane's), Espen Barth Eide (WEF), Trine Flockhart (University of Kent), Thomas Frear (ELN), Nancy W. Gallagher (CISSM), Lila Ghosh (The Soufan Group), Bastian Giegerich (IISS), Tobias Grimm (Munich Re), Jean-Marie Guéhenno (Crisis Group), Richard Haass (CFR), James Hackett (IISS), Jane Harman (Wilson Center), David Harper (Chatham House), Johnny Heald (ORB), Sebastian Heilmann (MERICS), Matthew Henman (IHS Jane's), Mikko Huotari (MERICS), Graham Hutchings (Oxford Analytica), Ian Kearns (ELN), Frederick Kempe (Atlantic Council), John D. Lawrence (ISW), Mark Leonard (ECFR), Louis Lillywhite (Chatham House), William McCants (Brookings), Peter Neumann (ICSR), Vishal Patel (Merck), Volker Perthes (SWP), Clionadh Raleigh (ACLEd), Thomas Rid (King's College London), Jürgen Rogalski (SWP), Eberhard Sandschneider (DGAP), Frank Sauer (UniBw), Caroline Schmutte (Gates Foundation), Sebastian Sieber (HIIK), Basile Simon (Airwars.org), Anne-Marie Slaughter (New America), Dan Smith (SIPRI), Candida Splett (SWP), Strobe Talbott (Brookings), Nathalie Tocci (IAI), Verena Treber (Allianz), Ali Vaez (ICG), Wolff van Sintern (McKinsey), Tobias von Gienanth (ZIF), Almut Wieland-Karimi (ZIF), Chris Woods (Airwars.org), Martin Zapfe (CSS Zurich), and Benno Zogg (CSS Zurich).

REPORT TEAM

Tobias Bunde
Benedikt Franke

Vera Lamprecht
Adrian Oroz

Lisa Marie Ullrich
Kai Wittek

RESEARCH ASSISTANCE AND SUPPORT

Tarek Kasah
Verena Schneider
and the entire MSC team



IMPRESSUM

The Munich Security Report 2016 is published by the Munich Security Conference Foundation gGmbH (Prinzregentenstr. 7, 80538 Munich, Germany), on the occasion of the 52nd Munich Security Conference. The Munich Security Conference is one of the world's leading platforms for discussions on foreign and security policy. Besides the annual main conference in Munich, it organizes a number of events around the world. More information on the MSC, its structure, goals, and activities can be found at www.securityconference.de.

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Imprint:

© Stiftung Münchner Sicherheitskonferenz
(gemeinnützige) GmbH
printed by experts (www.ppa-office.com)

ISSN (Print) 2365-2179
ISSN (Internet) 2365-2187





Endnotes





Endnotes

Please note that all links have last been checked on 16 January 2016. All quotes in British English have been changed to American English.

Boundless Crises, Reckless Spoilers, Helpless Guardians

1. Tony Barber, "Estonia President Criticises Mainstream Anti-Immigrant Sentiment," Financial Times, 6 December 2015, <http://on.ft.com/1XTeOM5>.
2. Donald Armbricht, "Are We Nearing the End of Poverty?," World Economic Forum, 16 December 2015, https://agenda.weforum.org/2015/12/are-we-nearing-the-end-of-poverty/?utm_content=buffer9ab99&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer.
3. Richard N. Haass, "Executing Foreign Policy," Project Syndicate, 29 December 2015, <http://po.st/Jsl2uu>.
4. Karl Vick, "Chancellor of the Free World. Angela Merkel's Journey From Daughter of a Lutheran Pastor in East Germany to De Facto Leader of a Continent," Time, 9 December 2015, <http://time.com/time-person-of-the-year-2015-angela-merkel/>.
5. Council of the European Union, "A Secure Europe in a Better World. European Security Strategy," 12 December 2003, <https://www.consilium.europa.eu/uedocs/cmsUpload/78367.pdf>.
6. Carl Bildt, "The Fire Forging Europe," Project Syndicate, 28 September 2015, <http://po.st/STYTzv>.
7. "Daily Chart. More Neighbours Make More Fences," The Economist, 7 January 2015, <http://economist.com/1OC4dEj>.
8. Anne Applebaum, "Regaining Control in an Unsettled Europe," The Washington Post, 14 November 2015, <http://wpo.st/MF911>.
9. Robert E. Berls, Jr., and Leon Ratz, "Rising Nuclear Dangers. Assessing the Risk of Nuclear Use in the Euro-Atlantic Region," NTI Paper (October 2015).
10. Tony Barber, "Estonia President Criticises Mainstream Anti-Immigrant Sentiment," Financial Times, 6 December 2015, <http://on.ft.com/1XTeOM5>.
11. Angela Merkel, "Regierungserklärung von Bundeskanzlerin Merkel," 16 December 2015, <http://www.bundestkanzlerin.de/Content/DE/Regierungserklaerung/2015/2015-12-17-regierungserklaerung.html>. Translation by MSC staff.
12. Barack Obama, "Remarks of President Barack Obama – State of the Union Address As Delivered," 13 January 2016, <https://www.whitehouse.gov/the-press-office/2016/01/12/remarks-president-barack-obama---prepared-delivery-state-union-address>.
13. Fu Ying, "The US World Order Is a Suit That No Longer Fits," 6 January 2016, Financial Times, <http://on.ft.com/1Z5OChN>.
14. Nouriel Roubini, "The Europe Question in 2016," Project Syndicate, 6 January 2016, <http://po.st/iwoXXy>.
15. Chester A. Crocker, "The Strategic Dilemma of a World Adrift," Survival: Global Politics and Strategy 57:1 (February-March 2015): 7-30.
16. Ian Bremmer and Cliff Kupchan, "Eurasia Group Top Risks 2016," Eurasia Group, <http://www.eurasiagroup.net/pages/top-risks-2016>.

Actors

China: Doubling Down?

1. Nazneen Barma, Ely Ratner and Steven Weber, "Welcome to the World Without the West," The National Interest, 12 November 2014, <http://nationalinterest.org/feature/welcome-the-world-without-the-west-11651>.



2. Ian Bremmer and Cliff Kupchan, "Eurasia Group Top Risks 2016," Eurasia Group, <http://www.eurasiagroup.net/pages/top-risks-2016>.
3. For China's current economic challenges see, e.g., Mark Magnier, "Gloom Hangs Over China's Economy Amid Market Turmoil," The Wall Street Journal, 8 January 2015, <http://on.wsj.com/1S6eDyr>. For a skeptical view on China's initiatives see Angela Stanzel, "China's Silk Road to Nowhere?," ECFR Commentary, 13 May 2015, http://www.ecfr.eu/article/commentary_chinas_silk_road_to_nowhere3025.
4. Moritz Rudolf, "One Belt, One Road: The Silk Road," <http://www.merics.org/en/merics-analysis/infographicchina-mapping/china-mapping.html>.
5. Fu Ying, "How China Sees Russia," Foreign Affairs 95:1 (2016), <https://www.foreignaffairs.com/articles/china/2015-12-14/how-china-sees-russia>.
6. Jane Perlez, "In Victory for Philippines, Hague Court to Hear Dispute Over South China Sea," The New York Times, 30 October 2015, <http://nyti.ms/1HgamiG>.
7. Bob Work, "Speech at the CNAS Defense Forum," 14 December 2015, <http://www.defense.gov/News/Speeches/Speech-View/Article/634214/cnas-defense-forum>.
8. Fu Ying, "The US World Order Is a Suit That No Longer Fits," 6 January 2016, Financial Times, <http://on.ft.com/1Z5OChN>.
9. Graham Allison, "The Thucydides Trap: Are the U.S. and China Headed for War?," The Atlantic, <http://www.theatlantic.com/international/archive/2015/09/united-states-china-war-thucydides-trap/406756/>.
10. Mercator Institute for China Studies (MERICS), for a discussion of these initiatives, see Moritz Rudolf, Mikko Huotari, Johannes Buckow and Sebastian Heilmann, "Chinas Schatten-Außenpolitik: Parallelstrukturen fordern die internationale Ordnung heraus," MERICS China Monitor No. 18, 23 September 2014, http://www.merics.org/fileadmin/templates/download/china-monitor/China_Monitor_No_18.pdf.
11. Pew Research Center, "Concern About Territorial Disputes With China," 1 September 2015, <http://pewrsr.ch/1FjBNY1>.
12. Data provided to MSC by IHS Jane's. Note on the difference between official and adjusted budget: The Chinese government's official defense spending figure is thought to exclude military pensions and significant areas of related RDT&E funding, particularly in civil/military spheres. The adjusted budget figure includes additional funding for these missing elements.
13. Compiled and designed by the Mercator Institute for China Studies (MERICS).

Iran: Dealt a Strong Hand?

1. Rick Gladstone, "Iranian's U.N. Speech Appears to Favor Engagement," The New York Times, 27 September 2015, <http://nyti.ms/1FtV2DU>.
2. Thomas L. Friedman, "Obama Makes His Case on Iran Nuclear Deal," The New York Times, 14 July 2015, <http://nyti.ms/1Ht5Orf>.
3. Frank-Walter Steinmeier, "Rede von Außenminister Steinmeier beim Core Group Meeting der Münchner Sicherheitskonferenz in Teheran," 17 October 2015, http://www.auswaertiges-amt.de/DE/Infoservice/Presse/Reden/2015/151017_BM_Rede_Sicherheitskonferenz_Teheran.html.
4. Summary provided to MSC by ICG.
5. Ayatollah Ali Khamenei, "Leader's Speech in Meeting With Commanders and Personnel of Islamic Revolution Guards Corps," 7 October 2015, <http://english.khamenei.ir/news/2194/Leader-s-speech-in-meeting-with-commanders-and-personnel-of-Islamic>.
6. The World Bank, "Global Economic Prospects. Spillovers Amid Weak Growth," January 2016, <http://www.worldbank.org/content/dam/Worldbank/GEP/GEP2016a/Global-Economic-Prospects-January-2016-Spillovers-amid-weak-growth.pdf>, p. 4.
7. The Center for International and Security Studies at Maryland (CISSM) and IranPoll.com, "Iranian Public Opinion on the Nuclear Agreement," September 2015, <http://www.ciissm.umd.edu/sites/default/files/CISSM-IranPoll%20-%20Questionnaire%20with%20results%20and%20trends%20090815.pdf>, pp. 8-9. Data missing to 100% = DK/NA.
8. The International Institute for Strategic Studies (IISS), The Military Balance 2016 (London: Routledge, forthcoming), <https://www.iiss.org/en/publications/military%20balance/issues/the-military-balance-2016-d6c9>.



Russia: Going South?

1. Vladimir Putin, "Read Putin's U.N. General Assembly Speech," The Washington Post, 28 September 2015, <http://wpo.st/Uie31>.
2. François Hollande, "Déclaration des présidents François Hollande et Vladimir Poutine à l'issue de leur entretien," 26 November 2015, <http://www.elysee.fr/declarations/article/declaration-des-presidents-francois-hollande-et-vladimir-poutine-a-l-issue-de-leur-entretien/>.
3. See, e.g., Steven Mufson, "At G-7 Meeting, Obama's Primary Task Is Confronting His Putin Problem," The Washington Post, 6 June 2015, <http://wpo.st/TF141>.
4. See, e.g., "More Swedes Want to Join NATO Than Stay Out," The Local, 14 September 2015, <http://www.thelocal.se/20150914/poll-more-swedes-now-for-nato-than-against>; Richard Milne, "Once a Taboo, Nato Membership Now a Hot Topic in Finland," Financial Times, 17 April 2015, <http://on.ft.com/1JPckJ1>.
5. Kathrin Hille, "Fears of Financial Crisis Rise as Russia's Economy Shrinks," Financial Times, 10 August 2015, <http://on.ft.com/1IZLUGm>.
6. Vladimir Putin, "Presidential Address to the Federal Assembly," 3 December 2015, <http://en.kremlin.ru/events/president/news/50864>.
7. Arkady Ostrovsky, "Putin's Pressure," The Economist: The World in 2016, 2 November 2015, <http://www.theworldin.com/article/10470>.
8. Levada Center, "Economic Crisis," 16 October 2015, <http://www.levada.ru/eng/economic-crisis>. The full text of the question reads: "In your opinion, in terms of the government's economic policy (for example, measures taken to fight the financial crisis, inflation, unemployment, etc.), how would you rate the government's response to these challenges?," 7% of respondents answered "good", 57% "mediocre" and 32% "poor".
9. Levada Center, "Pride & Patriotism," 9 December 2015, <http://www.levada.ru/eng/pride-patriotism>.
10. Vladimir Putin, "Read Putin's U.N. General Assembly Speech," The Washington Post, 28 September 2015, <http://wpo.st/Uie31>.
11. The World Bank, "Russian Federation. Global Economic Prospects – Forecasts," <http://data.worldbank.org/country/russian-federation>.
12. Ivan Krastev, "What the West Gets Wrong About Russia," The New York Times, 12 August 2015, <http://nyti.ms/1P4EDVW>.
13. Gallup, "Rating World Leaders: What People Worldwide Think of the U.S., China, Russia, the EU and Germany," 22 April 2015, available upon request at <http://www.gallup.com/opinion/gallup/182801/rating-world-leaders-china-russia-germany.aspx>. Copyright © (2015) Gallup, Inc. All rights reserved. The content is used with permission; however, Gallup retains all rights of republication. Note: Only East Germany was a member of the Warsaw Pact. However, this survey was conducted throughout all of Germany.
14. Data provided to MSC by IHS Jane's.
15. The International Institute for Strategic Studies (IISS), *The Military Balance 2016* (London: Routledge, forthcoming), <https://www.iiiss.org/en/publications/military%20balance/issues/the-military-balance-2016-d6c9>.

Islamic State: Daeshing Terror

1. Amy Davidson, "Obama to Iraq: Your Problem Now," The New Yorker, 13 June 2014, <http://www.newyorker.com/news/amy-davidson/obama-to-iraq-your-problem-now>. Obama's comment reads as follows: "The analogy we use around here sometimes, and I think is accurate, is if a jayvee team puts on Lakers uniforms that doesn't make them Kobe Bryant."
2. "What It Will Take to Bankrupt ISIS," The New York Times, 3 December 2015, <http://nyti.ms/1XB2oO0>.
3. United Nation Security Council, Resolution 2249 (2015), 20 November 2015, http://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/s_res_2249.pdf.
4. The Soufan Group, "Foreign Fighters. An Updated Assessment of the Flow of Foreign Fighters Into Syria and Iraq," December 2015, http://soufangroup.com/wp-content/uploads/2015/12/TSG_ForeignFightersUpdate3.pdf, p. 4.
5. Eric Schmitt, "In Battle to Defang ISIS, U.S. Targets Its Psychology," The New York Times, 28 December 2014, <http://nyti.ms/1y08PNq>.



6. Will McCants, "Does the Islamic State Want an Apocalyptic Showdown? Not So Fast," 8 December 2015, <http://warontherocks.com/2015/12/does-the-islamic-state-want-an-apocalyptic-showdown-not-so-fast/>.
7. Will McCants, "How the Islamic State Declared War on the World," Foreign Policy, 16 November 2015, <http://foreignpolicy.com/2015/11/16/how-the-islamic-state-declared-war-on-the-world-actual-state/>.
8. SITE Intelligence Group, "IS Claims Paris Attacks, Warns Operation is 'First of the Storm,'" 15 November 2015, <https://ent.siteintelgroup.com/Statements/is-claims-paris-attacks-warns-operation-is-first-of-the-storm.html>.
9. Data provided to MSC by IHS Jane's Terrorism and Insurgency Centre (JTIC).
10. See note above. "Attack" is defined as "an incident in which a sub-state actor (either an individual or organization) commits an illegal act of politically or ideologically motivated violence against persons or property, with the aim of coercing others to adopt or comply with its objectives, or to submit to their authority."
11. Based on Jared Cohen, "Digital Counterinsurgency. How to Marginalize the Islamic State Online," Foreign Affairs 94:6, <https://www.foreignaffairs.com/articles/middle-east/digital-counterinsurgency>.
12. Based on J. M. Berger, "Tailored Online Interventions: The Islamic State's Recruitment Strategy," CTC Sentinel 8:10, October 2015, <https://www.ctc.usma.edu/posts/october-2015>.
13. Based on Alberto M. Fernandez, "Here to Stay and Growing: Combating ISIS Propaganda Networks," Center for Middle East Policy at Brookings, October 2015, http://www.brookings.edu/~media/research/files/papers/2015/10/combating-isis-propaganda-fernandez/is-propaganda_web_english.pdf.
14. Pew Research Center, "In Nations With Significant Muslim Populations, Much Disdain for ISIS," 17 November 2015, <http://www.pewresearch.org/fact-tank/2015/11/17/in-nations-with-significant-muslim-populations-much-disdain-for-isis/>. Data missing to 100% = DK/refused.
15. The Soufan Group, "Foreign Fighters. An Updated Assessment of the Flow of Foreign Fighters Into Syria and Iraq," December 2015, http://soufangroup.com/wp-content/uploads/2015/12/TSG_ForeignFightersUpdate3.pdf. On the sources, see p. 5: "The numbers in this report have been compiled from official government estimates wherever possible, but also derive from United Nations reports, studies by research bodies, academic sources, and from other sources quoting government officials. Inevitably, whatever their source, the numbers quoted are subject to an inherent level of uncertainty. Many governments do not release official estimates of the number of their citizens who have gone to Syria and Iraq, and those that do, whether formally or informally, do not reveal their methodology and may struggle to achieve accuracy. Also, for some, the number may reflect all those who have gone, while others may subtract the number of returnees and/or those who have died. Some may not include women and children, while others do. It is rare that governments provide a detailed breakdown of their numbers and in all cases it is likely that more have gone than the relevant government is aware of or prepared to admit."
16. See note above.

Places

Eastern Europe: (The) Curtain Calls?

1. Jens Stoltenberg, "Modernizing the Rule-Book of European Security," 26 November 2015, http://www.nato.int/cps/en/natohq/opinions_125177.htm.
2. Alex Barker, "Nato Prepares to Revive Russia Contacts," Financial Times, 2 December 2015, <http://on.ft.com/1NHWJko>.
3. See the "Joint Declaration on Allied Solidarity and Shared Responsibility," 4 November 2015, <https://www.prezident.sk/en/article/joint-declaration-on-allied-solidarity-and-shared-responsibility/>.
4. Karl-Heinz Kamp, "The Agenda of the NATO Summit in Warsaw," Federal Academy for Security Policy, Security Policy Working Paper 9 (2015), <https://www.baks.bund.de/en/working-papers>.
5. Jeffrey Rathke notes: "NATO does not currently have the ability to repel a possible Russian attack or prevent Russia from occupying territory in the east, in particular along NATO's eastern borders in Lithuania, Latvia, Estonia, and Poland. This situation is destabilizing, as these countries face the prospect of discovering on any given day that several Russian army divisions are on their frontier with unclear (or



- perhaps very clear) intentions.” In: Jeffrey Rathke, “Can NATO Deter Russia in View of the Conventional Military Imbalance in the East?,” 30 November 2015, <http://csis.org/publication/can-nato-deter-russia-view-conventional-military-imbalance-east>. See also Rainer L. Glatz and Martin Zapfe: “NATO Defence Planning Between Wales and Warsaw. Politico-Military Challenges of a Credible Assurance Against Russia,” SWP Comments 2016/C 05 (January 2016), http://www.swp-berlin.org/en/publications/swp-comments-en/swp-aktuelle-details/article/nato_verteidigungsplanung_zwischen_wales_und_warschau.html. Russia’s development and deployment of new A2/AD (anti-access/area-denial) capabilities makes this problem even more acute.
6. Joseph R. Biden, “Remarks by Vice President Joe Biden to The Ukrainian Rada,” 9 December 2015, <https://www.whitehouse.gov/the-press-office/2015/12/09/remarks-vice-president-joe-biden-ukrainian-rada>. See also “Making Joe Biden Mad as Hell”, The Economist, 11 December 2015, <http://econ.st/1RGw9lv>.
 7. Henry Foy, “Nato Treats Poland Like a Buffer State, Says New President,” Financial Times, 13 August 2015, <http://on.ft.com/1Wlmvwn>.
 8. Neil Buckley, Alex Barker and Andrew Byrne, “Russia Fumes Over Nato Invitation to Montenegro,” Financial Times, 2 December 2015, <http://on.ft.com/1NqHLgM>.
 9. Panel of Eminent Persons on European Security, “Back to Diplomacy. Final Report,” November 2015, <https://www.securityconference.de/en/discussion/european-security-as-a-common-project/>.
 10. Data provided to MSC by the Center for Security Studies (CSS) at ETH Zurich. Based on: NATO; Russian Ministry of Defense; Washington Post; US Army Europe; Radio Free Europe; US European Command; The Diplomat; Polish Institute of International Affairs; Security Assistance Monitor; Reuters; Rainer L. Glatz/Martin Zapfe, “NATO Defence Planning,” op. cit.; CSS Analyse 174: Martin Zapfe, “Die ‘Speerspitze’ der NATO,” CSS Analysen zur Sicherheitspolitik 174 (May 2015), <http://www.css.ethz.ch/content/dam/ethz/special-interest/gess/cis/center-for-securities-studies/pdfs/CSSAnalyse174-DE.pdf>.
 11. NATO, “Founding Act on Mutual Relations, Cooperation and Security Between NATO and the Russian Federation,” 27 May 1997, http://www.nato.int/cps/en/natohq/official_texts_25468.htm.
 12. MSC, results of a live voting among European defense leaders on the occasion of the MSC European Defence Summit, Brussels, 15/16 September 2015.
 13. See note above.
 14. Data on agreements and the latest close encounters was provided to MSC by the ELN’s Ian Kearns and Thomas Frear. For more information on the close encounters and military incidents, see Thomas Frear, Łukasz Kulesa and Ian Kearns, “Dangerous Brinkmanship: Close Military Encounters Between Russia and the West in 2014,” ELN Policy Brief (November 2014), <http://www.europeanleadershipnetwork.org/medialibrary/2014/11/09/6375e3da/Dangerous%20Brinkmanship.pdf> as well as the continuing updates and description of the incidents here: http://www.europeanleadershipnetwork.org/russia--west-dangerous-brinkmanship-continues-_2529.html.
 15. For people killed, people wounded and internally displaced, see OHCHR, “Report on the Human Rights Situation in Ukraine,” 16 August-15 November 2015, <http://reliefweb.int/sites/reliefweb.int/files/resources/12th%20OHCHR%20report%20on%20Ukraine%20EN.pdf>; for externally displaced, people in need, and hectares contaminated by explosives, see UN OCHA, “Humanitarian Bulletin Ukraine. Issue 4,” 1-30 November 2015, http://reliefweb.int/sites/reliefweb.int/files/resources/bulletin_november_v5.pdf. “Explosives” include mines, improvised explosive devices and explosive remnants of war.
 16. Data provided to MSC by IHS Jane’s.
 17. The Kremlin, “National Security Strategy of the Russian Federation,” 31 December 2015, <http://static.kremlin.ru/media/events/files/ru/18iXkR8XLAtxeilX7JK3Xxy6Y0AsHD5v.pdf>, see paragraphs 12 and 15. Translation by MSC staff.
 18. Pew Research Center, “Many NATO Countries Reluctant to Use Force to Defend Allies,” 8 June 2015, <http://pewrsr.ch/1Tai5ab>. Data missing to 100% = DK/refused.
 19. The International Institute for Strategic Studies (IISS), The Military Balance 2016 (London: Routledge, forthcoming), <https://www.iiiss.org/en/publications/military%20balance/issues/the-military-balance-2016-d6c9>. The budget for Iceland is the Coast Guard Budget.
 20. The White House, “National Security Strategy of the United States,” February 2015, https://www.whitehouse.gov/sites/default/files/docs/2015_national_security_strategy.pdf, see foreword, pp. 10 and 25.



Africa: Keeping P(e)ace?

1. Donald Armbrecht, "Are We Nearing the End of Poverty?," World Economic Forum, 16 December 2015, https://agenda.weforum.org/2015/12/are-we-nearing-the-end-of-poverty/?utm_content=buffer9ab99&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer.
2. Barack Obama, "Remarks by President Obama to the People of Africa," 28 July 2015, <https://www.whitehouse.gov/the-press-office/2015/07/28/remarks-president-obama-people-africa>.
3. Institute for Economics and Peace, "Global Terrorism Index 2015", <http://economicsandpeace.org/wp-content/uploads/2015/11/2015-Global-Terrorism-Index-Report.pdf>, p. 4.
4. International Crisis Group, "The Central Sahel: A Perfect Sandstorm," 25 June 2015, <http://www.crisisgroup.org/en/regions/africa/west-africa/227-the-central-sahel-a-perfect-sandstorm.aspx>.
5. Frank-Walter Steinmeier, "Speech by Foreign Minister Frank-Walter Steinmeier at the German-African Business Summit," 7 September 2015, http://www.auswaertiges-amt.de/EN/Infoservice/Presse/Reden/2015/150907_AfricanBusinessSummit.html.
6. David Canning, Sangeet Raja and Abdo S. Yazbeck, Africa's Demographic Transition: Dividend or Disaster? (Washington, D.C.: The World Bank and Agence Française de Développement, 2015), p. 36.
7. Kofi Annan, "Africa Progress Report 2015," http://app-cdn.acwupload.co.uk/wp-content/uploads/2015/06/APP_REPORT_2015_FINAL_low1.pdf, p. 11.
8. ZIF – Center for International Peace Operations, "Peace Operations 2015/2016," September 2015, http://www.zif-berlin.org/fileadmin/uploads/analyse/dokumente/veroeffentlichungen/ZIF_World_Map_Peace_Operations.pdf.
9. Center on International Cooperation, "10 Trends in Peace Operations," 17 June 2015, <http://peaceoperationsreview.org/thematic-essays/10-trends-in-peace-operations/>.
10. Central Intelligence Agency, "The World Factbook. Field Listing: Median Age," as of 31 December 2015, <https://www.cia.gov/library/publications/the-world-factbook/fields/2177.html>.
11. UN Department of Economic and Social Affairs (UN DESA), "World Population Prospects. The 2015 Revision," http://esa.un.org/unpd/wpp/publications/files/key_findings_wpp_2015.pdf, p. 1. Numbers are based on UN DESA medium-variant projection. Rounded figures.
12. Armed Conflict Location & Event Data Project (ACLED), "Africa Data (Version 5 Data and Real Time Data 2016)," <http://www.acleddata.com/data/>. Islamic State-affiliated groups include "State of Sinai" (formerly "Ansar Beit al-Maqdis"), "Islamic State of Tripoli", "Islamic State (Cyrenaica Province)", "Islamic State (Fezzan Province)", and "Soldiers of the Caliphate".

The War in and over Syria: Assad Story

1. Hugh Naylor, "Islamic State Has Killed Many Syrians, But Assad's Forces Have Killed More," The Washington Post, 5 September 2015, <http://wpo.st/nEg31>. For IDP and refugee numbers, see UN OCHA, "Syrian Arab Republic," December 2015, <http://www.unocha.org/syria>.
2. Janine di Giovanni, "The Man With the Toughest Job in the World," The Guardian, 30 July 2015, <http://gu.com/p/4b4na/stw>.
3. "Vladimir Putin Addresses Russia's Intentions in Syria," CBS News, 24 September 2015, <http://www.cbsnews.com/news/vladimir-putin-addresses-russias-intentions-in-syria/>.
4. Hugh Naylor, "Iranian media is revealing that scores of the country's fighters are dying in Syria," The Washington Post, 27 November 2015, <http://wpo.st/TD341>.
5. David E. Sanger and Somini Sengupta, "Syrian Peace Plan Offers Some Hope, But Has Plenty of Pitfalls," The New York Times, 19 December 2015, <http://nyti.ms/1NZMHtj>.
6. John Kerry, "Press Availability With Russian Foreign Minister Sergey Lavrov," 15 December 2015, <http://www.state.gov/secretary/remarks/2015/12/250680.htm>.
7. Janine di Giovanni, "The Man With the Toughest Job in the World," The Guardian, 30 July 2015, <http://gu.com/p/4b4na/stw>.
8. Mouaz al-Khatib, Ahmad al-Assi Jarba, Hadi al-Bahra and Khaled Khoja, "Syria's Only Hope of Peace is if Assad is Removed," The Guardian, 20 November 2015, <http://gu.com/p/4edvt/stw>.
9. The White House, "Remarks by President Obama and President Hollande of France in Joint Press Conference," 24 November 2015, <https://www.whitehouse.gov/the-press-office/2015/11/24/remarks-president-obama-and-president-hollande-france-joint-press>.



10. Airwars.org, "Current Numbers," as of 31 December 2015, <http://airwars.org>.
11. Data provided to MSC by Airwars.org. The Coalition and some members (US, UK, France, Canada) measure actions against Daesh in "airstrikes." Others (Netherlands, Australia, Denmark, Belgium) instead measure actions via munitions dropped. To reconcile these approaches, Airwars.org assumes an average of 3.2 weapons released per strike. France reports 347 strikes (including 13 in Syria) to 17 December 2015; Airwars.org estimates 30 strikes including one in Syria between December 1 and 17. UAE, Jordan, Saudi Arabia, Bahrain: combined estimate.
12. ORB International, "Syria Public Opinion," July 2015, <http://www.opinion.co.uk/perch/resources/syriadata.pdf>, p. 2. The survey is based on face-to-face interviews in all 14 governorates in Syria, including those under the control of ISIL. The control region is determined by the interviewer, who is being asked to determine who controls the road he is interviewing in. Data missing to 100% = DK/refused.
13. Data for November provided to MSC by the Institute for the Study of War (ISW). According to ISW, the assessment is based on "reports from local Syrian activist networks, Syrian state-run media, and statements by Russian and Western officials. This map represents locations targeted by Russia's air campaign, rather than the number of individual strikes or sorties." High-confidence strikes means "ISW places high confidence in reports corroborated both by official government statements reported through credible channels and documentation from rebel factions or activist networks on the ground in Syria deemed to be credible." Low-confidence strikes – from "secondary sources that have not been confirmed or sources deemed likely to contain disinformation" – have not been included in this map. For methodology, see <http://www.understandingwar.org/backgrounder/russian-strikes-syria-november-9-november-19-2015>.
14. For people in need, see UN OCHA/UN CERF, "Syria Crisis," 17 December 2015, http://reliefweb.int/sites/reliefweb.int/files/resources/SYR_CERF_20151217.pdf; for estimated unemployment rate, see UNDP, "About Syria," <http://www.sy.undp.org/content/syria/en/home/countryinfo.html>; for population size, see "Daily Chart: Syria's Drained Population," The Economist, 30 September 2015, <http://econ.st/1L3Lwra>; for life expectancy, see Syrian Center for Policy Research, "Alienation and Violence: Impact of the Syria Crisis Report 2014," March 2015, http://www.unrwa.org/sites/default/files/alienation_and_violence_impact_of_the_syria_crisis_in_2014_eng.pdf.
15. European External Action Service, "Final Declaration on the Results of the Syria Talks in Vienna As Agreed by Participants," 30 October 2015, http://eeas.europa.eu/statements-eeas/2015/151030_06.htm.

Issues

Human Security: Refuge Refused?

1. UNHCR, "2015 Likely to Break Records for Forced Displacement – Study," 18 December 2015, <http://www.unhcr.org/5672c2576.html>.
2. UNHCR, "Worldwide Displacement Hits All-Time High As War and Persecution Increase," 18 June 2015, <http://www.unhcr.org/558193896.html>.
3. IOM, "Irregular Migrant, Refugee Arrivals in Europe Top One Million in 2015: IOM," 22 December 2015, <https://www.iom.int/news/irregular-migrant-refugee-arrivals-europe-top-one-million-2015-iom>.
4. UNHCR, "Worldwide Displacement Hits All-Time High As War and Persecution Increase," 18 June 2015, <http://www.unhcr.org/558193896.html>.
5. Vatican Radio, "Pope on Lampedusa: 'The Globalization of Indifference'," 8 July 2013, <http://www.news.va/en/news/pope-on-lampedusa-the-globalization-of-indifferenc>.
6. Angela Merkel, "Sommerpressekonferenz von Bundeskanzlerin Merkel," 31 August 2015, <http://www.bundesregierung.de/Content/DE/Mitschrift/Pressekonferenzen/2015/08/2015-08-31-pk-merkel.html>. Translation by MSC staff.
7. UNHCR, "World at War. Global Trends – Forced Displacement in 2014," 18 June 2015, <http://unhcr.org/556725e69.html>.
8. See note above.
9. UN News Centre, "In Turkey, UN Deputy Chief Says Response to Migration, Refugee Movement 'Being Tested As Never Before,'" 14 October 2015, <http://www.un.org/apps/news/story.asp?NewsID=52265#.Vok0o1nKeK4>.



10. Anne Applebaum, "Europe's Deadly Denial: The Refugee Crisis Is the Consequence of Europe's Refusal to Confront the Wars on Its Borders," *Slate*, 4 September 2015, http://www.slate.com/articles/news_and_politics/foreigners/2015/09/europe_refugee_crisis_the_eu_has_failed_to_confront_the_wars_in_syria_and.html.
11. Angela Merkel, "Rede von Bundeskanzlerin Merkel zum Einzelplan 04," 25 November 2015, <http://www.bundeskanzlerin.de/Content/DE/Rede/2015/11/2015-11-26-rede-merkel-haushalt.html>. Translation by MSC staff.
12. UNHCR, "Refugees/Migrants Emergency Response – Mediterranean," as of 31 December 2015, <http://data.unhcr.org/mediterranean/regional.php>. The Top 5 nationalities of Mediterranean Sea arrivals are based on arrivals since 1 January 2015. The term "refugees" refers to refugees under UNHCR's mandate. It includes individuals recognized under the 1951 Convention relating to the Status of Refugees, its 1967 Protocol, the 1969 Organization of African Unity (OAU), Convention Governing the Specific Aspects of Refugee Problems in Africa, those recognized in accordance with the UNHCR Statute, individuals granted complementary forms of protection, and those enjoying temporary protection. The refugee population also includes persons in refugee-like situations. It does not include Palestinian refugees registered with UNRWA. The figures are based on UNHCR data, generally provided by governments, based on their own definitions and methods of data collection.
13. UNHCR, "Mid-Year Trends 2015," <http://www.unhcr.org/56701b969.html>; for "number of refugees by host country", see pp. 16-19; for number of refugees per 1,000 and per USD 1 GDP (PPP) per capita, see p. 8.

Health Security: The Plot Sickens

1. Suzanne Austin Alchon, *A Pest in the Land* (Albuquerque: University of New Mexico Press, 2003); Andrew T. Price-Smith, *The Health of Nations* (Cambridge, Mass.: MIT Press, 2002).
2. Alfred W. Crosby, *America's Forgotten Pandemic* (Cambridge: Cambridge University Press, 2003); K. David Patterson and Gerald F. Pyle, "The Geography and Mortality of the 1918 Influenza Pandemic," *Bulletin of the History of Medicine* 65:1(1991): 4-21; Niall P.A.S. Johnson and Juergen Mueller, "Updating the Accounts: Global Mortality of the 1918-1920 'Spanish' Influenza Pandemic," *Bulletin of the History of Medicine*: 76:1 (2002): 105-115.
3. World Health Organization, "Ten Things You Need to Know About Pandemic Influenza," 14 October 2005, <http://apps.who.int/csr/disease/influenza/pandemic10things/en/>.
4. See note above.
5. World Health Organization, "Implementation of the International Health Regulations (2005): Report of the Review Committee on the Functioning of the International Health Regulations (2005) in relation to Pandemic (H1N1) 2009," 5 May 2011, http://apps.who.int/gb/ebwha/pdf_files/WHA64/A64_10-en.pdf.
6. Fatimah S. Dawood et al., "Estimated Global Mortality Associated With the First 12 Months of 2009 Pandemic Influenza A H1N1 Virus Circulation. A Modelling Study," *The Lancet Infectious Diseases* 12:9 (2012): 687-695.
7. Centers for Disease Control and Prevention, "Progress Toward Interruption of Wild Poliovirus Transmission – Worldwide, January 2005-March 2006," *Morbidity and Mortality Weekly Report* 55 (2006): 458-462; Centers for Disease Control and Prevention, "Resurgence of Wild Poliovirus Type 1 Transmission and Consequences of Importation – 21 countries, 2002-2005," *Morbidity and Mortality Weekly Report* 55 (2006): 145-150; Centers for Disease Control and Prevention (1999), "Progress Toward Interruption of Wild Poliovirus Transmission – Nigeria, 1996-1998," *Morbidity and Mortality Weekly Report* 48 (1999): 312-316.
8. Angela Merkel, "Statement by Federal Chancellor Angela Merkel at the 68th Session of the WHO World Health Assembly in Geneva," 18 May 2015, <http://www.who.int/mediacentre/events/2015/wha68/merkel-speech-wha68.pdf?ua=1>.
9. Bill Gates, "The Next Epidemic – Lessons from Ebola," *The New England Journal of Medicine*, 9 April 2015, http://www.nejm.org/doi/full/10.1056/NEJMp1502918?utm_source=health.charybd.com&utm_medium=link&utm_campaign=article&.
10. UK Government, "National Security Strategy and Strategic Defense and Security Review 2015. A Secure and Prosperous United Kingdom," November 2015, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/478936/52309_Cm_9161_NSS_SD_Review_PRINT_only.pdf.



11. Margaret Chan, "Briefing to the United Nations Security Council on Peace and Security in Africa: Ebola," 13 August 2015, <http://www.who.int/dg/speeches/2015/ebola-briefing-security-concil/en/>.
12. Data provided to MSC by Chatham House. Based on: Chatham House data; World Health Organization, "Summary of Probable SARS Cases With Onset of Illness From 1 November 2002 to 31 July 2003," 31 December 2003, http://www.who.int/csr/sars/country/table2004_04_21/en/; Jong-Wha Lee and Warwick J. McKibbin, "Estimating the Global Economic Costs of SARS," The Australian National University and The Brookings Institution, <http://www.ncbi.nlm.nih.gov/books/NBK92473/> and World Bank GDP at market prices, <http://data.worldbank.org/indicator/NY.GDPMKTRCD?page=2>. Note: The figures on economic loss due to SARS are calculations by Chatham House based on Lee/McKibbin estimates and 2002 World Bank GDP.
13. Data provided to MSC by Chatham House. Based on: "Antimicrobial Resistance: Tackling a Crisis for the Health and Wealth of Nations," Review on Antimicrobial Resistance, December 2014, http://amr-review.org/sites/default/files/AMR%20Review%20Paper%20-%20Tackling%20a%20crisis%20for%20the%20health%20and%20wealth%20of%20nations_1.pdf and Maryn McKenna, "Antibiotic Resistance. The Last Resort," Nature News, 24 July 2013. Adapted by permission from Macmillan Publishers Ltd, Nature, "Antibiotic Resistance. The Last Resort," Maryn McKenna, Nature News, Copyright 2013.
14. Data provided to MSC by Chatham House. Based on: Centers for Disease Control and Prevention, "2014 Ebola Outbreak in West Africa – Reported Cases Graphs," <http://www.cdc.gov/vhf/ebola/outbreaks/2014-west-africa/cumulative-cases-graphs.html>.

Climate Security: The Heat is on

1. The White House, "National Security Strategy," February 2015, https://www.whitehouse.gov/sites/default/files/docs/2015_national_security_strategy.pdf.
2. American Security Project, "The Global Security Defense Index on Climate Change," September 2014, <http://www.americansecurityproject.org/climate-energy-and-security/climate-change/gsdicc/>.
3. Pew Research Center, "Top Threats by Region," 13 July 2015, <http://pewrsr.ch/1TzPnyl>.
4. Information provided to MSC by Allianz SE.
5. Anne-Marie Slaughter, "The Paris Approach to Global Governance," Project Syndicate, 28 December 2015, <http://po.st/SD4GGU>.
6. United Nations Framework Convention on Climate Change, "Adoption of the Paris Agreement," 12 December 2015, <https://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf>.
7. Laurent Fabius, Speech at COP 21, 30 November 2015, <http://www.diplomatie.gouv.fr/en/french-foreign-policy/climate/2015-paris-climate-conference-cop21/article/paris-2015-cop-21-speech-by-laurent-fabius-french-minister-of-foreign-affairs>.
8. Munich Re, Geo Risks Research, NatCatSERVICE, "Why the 2-Degree Target Is So Important – And So Difficult to Achieve," January 2015, <http://www.munichre.com/en/group/focus/climate-change/viewpoints/road-to-paris/2-degree-target/index.html>.
9. Munich Re, Geo Risks Research, NatCatSERVICE, "Climate Finance and Climate Insurance – Negotiating Positions and Opportunities," January 2015, <http://www.munichre.com/en/group/focus/climate-change/viewpoints/road-to-paris/climate-financing-and-climate-insurance/index.html>. CPI = Consumer Price Index.
10. Data provided to MSC by Oxford Analytica.

Future Warfare: Race Against the Machines

1. See Thomas Rid, *Cyber War Will Not Take Place* (Oxford: Oxford University Press, 2013); Brandon Valeriano and Ryan C. Maness, *Cyber War Versus Cyber Realities. Cyber Conflict in the International System* (Oxford: Oxford University Press, 2015). The Stuxnet attack on Iran's uranium enrichment plant at Natans that destroyed nearly 1,000 centrifuges remains a notable exception.
2. "Hacker verursachten Stromausfall. Erkenntnisse über einen Cyberangriff in der Ukraine", Frankfurter Allgemeine Sonntagszeitung, 10 January 2016, p. 1.



3. Ellen Nakashima, "Russian Hackers Suspected in Attack That Blacked Out Parts of Ukraine," The Washington Post, 5 January 2016, <http://wpo.st/Ohy21>. On attribution see Thomas Rid and Ben Buchanan: "Attributing Cyber Attacks," *Journal of Strategic Studies* 38(1-2), pp. 4-37.
4. For an overview see Robert Litwak and Meg King, "Arms Control in Cyberspace?," *Wilson Briefs*, <https://www.wilsoncenter.org/publication/arms-control-cyberspace>.
5. The White House, Office of the Press Secretary, "Fact Sheet: President Xi Jinping's State Visit to the United States," 25 September 2015, <https://www.whitehouse.gov/the-press-office/2015/09/25/fact-sheet-president-xi-jinpings-state-visit-united-states>.
6. Jeffrey Lin and P.W. Singer, "China's New Trio of Urban Combat Robots. Hit Robot Group Selling a Hit," *Popular Science*, 10 December 2015, <http://www.popsci.com/chinas-new-triple-team-fighting-robots>; Simon Parkin, "Killer Robots: The Soldiers That Never Sleep," *BBC*, 16 July 2015, <http://www.bbc.com/future/story/20150715-killer-robots-the-soldiers-that-never-sleep>.
7. Michael Horowitz and Paul Scharre: "Do Killer Robots Save Lives?," *Politico*, 19 November 2015, <http://www.politico.com/magazine/story/2014/11/killer-robots-save-lives-113010.html>.
8. For an overview see Lene Grimstad, "The UN's Meetings on Autonomous Weapons: Biting the Bullet, or Lost in Abstraction?," *Remote Control Warfare Series*, 23 June 2015, <http://remotecomtrolproject.org/the-uns-meetings-on-autonomous-weapons-biting-the-bullet-or-lost-in-abstraction/>.
9. Jared Cohen, "Digital Counterinsurgency. How to Marginalize the Islamic State Online," *Foreign Affairs* 94:6, <https://www.foreignaffairs.com/articles/middle-east/digital-counterinsurgency>.
10. Bob Work, "Remarks at China Aerospace Studies Institute as Delivered by Deputy Secretary of Defense Bob Work," *RAND Corporation*, 22 June 2015, <http://www.defense.gov/News/Speeches/Speech-View/Article/606683/china-aerospace-studies-institute>.
11. Data provided to MSC by the Center for Security Studies (CSS) at ETH Zurich. Based on: DataBreaches.net, IdTheftCentre, informationisbeautiful.net, and hackmageddon.com.
12. Charli Carpenter, "How Do Americans Feel About Fully Autonomous Weapons?," *The Duck of Minerva*, 16 September 2015, <http://duckofminerva.com/2013/06/how-do-americans-feel-about-fully-autonomous-weapons.html>. A random sample of 1,000 Americans was asked how they felt about military technology that could take humans out of the loop altogether, dubbed "killer robots" by the Campaign to Stop Killer Robots, an international coalition of non-governmental organizations launched in April that is working to ban fully autonomous weapons. The full text of the question reads: "Drones are remotely piloted by a human controller, but several nations are developing robotic weapons that can independently make targeting and firing decisions without a human in the loop. How do you feel about the trend toward using completely autonomous [robotic weapons/lethal robots] in war?" The participants in the survey were also asked about their take on a campaign to ban these weapons. To what extent would Americans support or oppose a campaign to ban the use of fully autonomous weapons? A majority said they would support it (strongly support: 33%; somewhat support: 20%), 19% were opposed (somewhat oppose: 9%; strongly oppose: 10%), while 38% replied they were not sure. The full text of questions reads: "Some non-profit citizen groups have launched [a campaign to ban the use of fully autonomous weapons/the Campaign to Stop Killer Robots], which seeks a global treaty requiring human involvement in all decisions to take human life. To what extent would you support or oppose such a campaign?" The complete figures and survey information can be accessed here: http://duckofminerva.dreamhosters.com/wp-content/uploads/2013/06/UMass-Survey_Public-Opinion-on-Autonomous-Weapons.pdf.
13. Stuart Russell et al., "Autonomous Weapons. An Open Letter from AI & Robotics Researchers," *Future of Life Institute*, 28 July 2015, <http://futureoflife.org/open-letter-autonomous-weapons/>. As of 11 January 2016, it has been signed by 3037 AI/robotics researchers and 17,376 other endorsers.
14. New America, "World of Drones: Military," <http://securitydata.newamerica.net/world-drones.html>, last accessed on 15 January 2016. The data is based on news reports and government documents and is classified according to the US Air Force tier system. According to New America, 86 countries have some kind of drone capability (armed or unarmed). Many of them only possess Tier I drones, i.e., low-endurance drones like the Orbiter, which are not included in the map. Only the United States, Israel, the United Kingdom, and Pakistan have used armed drones in combat. It should be noted, however, that many countries are developing additional capabilities. Concerning Russia, for instance, New America notes: "Russia has domestic production of drones and plans to invest an additional \$9.2 billion in production. It



is estimated that Russia has around 800 drones, mostly small. Russia purchased \$150 million in Aerostar drones from Israel, and in 2010 signed an agreement to produce Heron MALE drones in Russia but it is unclear whether that agreement has been fulfilled. Construction of a co-produced mini drone with Vietnam was announced in 2012. NBC News reported that Russia is developing a 20-ton attack drone whose prototype could be ready by 2018. Russia will conduct test flights in the UAE of a drone aircraft capable of carrying Namrod air-surface guided missiles. In October 2015, Turkey claimed it shot down over its territory a suspected Russian drone that had been operating in Syria.” See the project Web site for further references and more details on specific countries and their capabilities.

15. DJI Technology, DJI online store, accessed December 2015, <http://store.dji.com/de/product/spreading-wings-s1000-plus>.
16. Military numbers are based on TEAL Group Corporation: “World Unmanned Aerial Vehicle Systems – 2014 Market Profile and Forecast”; civil/consumer numbers are McKinsey estimates.
17. Kable Business Intelligence; Kable ICT Opportunity Forecast.

Food for Thought

Books

1. Jean-Marie Guéhenno, *The Fog of Peace. A Memoir of International Peacekeeping in the 21st Century* (Washington, D.C.: Brookings Institution Press, 2015), <http://www.brookings.edu/research/books/2014/fog-of-peace>; John Bew, *Realpolitik. A History* (Oxford/New York: Oxford University Press, 2015), <https://global.oup.com/academic/product/realpolitik-9780199331932?cc=de&lang=en&>; Thomas J. Christensen, *The China Challenge. Shaping the Choices of a Rising Power* (New York/London: W.W. Norton & Company, 2015), <http://books.wwnorton.com/books/The-China-Challenge/>; Ian Bremmer, *Superpower. Three Choices for America’s Role in the World* (New York: Portfolio, 2015), <http://www.penguinrandomhouse.com/books/317022/superpower-by-ian-bremmer/9781591847472/>; Fiona Hill and Clifford G. Gaddy, *Mr. Putin. Operative in the Kremlin* (Washington, D.C.: Brookings Institution Press, 2015), <http://www.brookings.edu/research/reports2/2015/01/mr-putin>; Anders Åslund, *Ukraine. What Went Wrong and How to Fix It* (Washington, D.C.: Peterson Institute for International Economics, 2015), <http://bookstore.piie.com/book-store/7014.html>; William McCants, *The ISIS Apocalypse. The History, Strategy, and Doomsday Vision of the Islamic State* (New York: St. Martin’s Press, 2015), <http://us.macmillan.com/theisisapocalypse/williammccants>; Charles R. Lister, *The Syrian Jihad. Al-Qaeda, the Islamic State and the Evolution of an Insurgency* (London: Hurst, 2015), <http://www.hurstpublishers.com/book/the-syrian-jihad/>; Alex Perry, *The Rift. A New Africa Breaks Free* (New York: Little, Brown and Company, 2015), <http://www.hachettebookgroup.com/titles/alex-perry/the-rift/9780316333771/>; Christopher Coker, *Future War* (Cambridge/Malden: Polity Press, 2015), <http://www.polity.co.uk/book.asp?ref=9781509502318>; Micah Zenko, *Red Team. How to Succeed By Thinking Like the Enemy* (New York: Basic Books, 2015), <http://www.cfr.org/defense-and-security/red-team/p36481>; Philip E. Tetlock and Dan Gardner, *Superforecasting. The Art and Science of Prediction* (New York: Crown Publishers, 2015), <http://crownpublishing.com/news/superforecasting-art-science-prediction-philip-e-tetlock-dan-gardner/#.VpjAaMpgEsg>.

Reports

1. Howard J. Shatz and Erin-Elizabeth Johnson, “The Islamic State We Knew. Insights Before the Resurgence and Their Implications,” RAND Corporation (September 2015), http://www.rand.org/pubs/research_reports/RR1267.html; Meaghan Parker (Ed.), “A New Climate for Peace. Taking Action on Climate and Fragility Risks,” adelphi, International Alert, Woodrow Wilson International Center for Scholars, European Union Institute for Security Studies (April 2015), <https://www.newclimateforpeace.org/>; Dina Smeltz, Ivo Daalder, Karl Friedhoff and Craig Kafura, “America Divided: Political Partisanship and US Foreign Policy,” 2015 Chicago Council Survey of American Public Opinion and US Foreign Policy (September 2015), <http://www.thechicagocouncil.org/publication/america-divided-political-partisanship-and-us-foreign-policy>; Maksymilian Czuperski, John Herbst and Eliot Higgins, Alina Polyakova and Damon Wilson,



"Hiding in Plain Sight. Putin's War in Ukraine," Atlantic Council (May 2015), <http://www.atlanticcouncil.org/publications/reports/hiding-in-plain-sight-putin-s-war-in-ukraine-and-boris-nemtsov-s-putin-war>; The Panel of Eminent Persons on European Security as a Common Project, "Back to Diplomacy. Final Report and Recommendations of the Panel of Eminent Persons on European Security as a Common Project," Organization for Security and Co-operation in Europe (November 2015), <http://www.osce.org/networks/205846>; International Crisis Group, "Iran After the Nuclear Deal," ICG Middle East Report No. 166 (December 2015), <http://www.crisisgroup.org/en/regions/middle-east-north-africa/iraq-iran-gulf/iran/166-iran-after-the-nuclear-deal.aspx>; Trine Flockhart, "Preparing for NATO's Warsaw Summit. The Challenges of Adapting to Strategic Change," DIIS Report No. 16 (2015), <http://www.diis.dk/node/6153>; McKinsey & Company, "Special Issue: Defense," McKinsey on Government No. 9 (Winter 2014/2015), http://www.mckinsey.com/client_service/public_sector/latest_thinking/mckinsey_on_government/mckinsey_on_defense_winter_2014; Robert E. Berls, Jr. and Leon Ratz, "Rising Nuclear Dangers: Assessing the Risk of Nuclear Use in the Euro-Atlantic Region," NTI Paper (October 2015), <http://www.nti.org/analysis/reports/rising-nuclear-dangers-assessing-risk-nuclear-use-euro-atlantic-region/>; Hanns Günther Hilpert and Gudrun Wacker, "Goeconomics Meets Geopolitics. China's New Economic and Foreign Policy Initiatives," SWP Comments 33 (June 2015), http://www.swp-berlin.org/en/publications/swp-comments-en/swp-aktuelle-details/article/china_goeconomics_meets_geopolitics.html; The German Marshall Fund of the United States, "Long-Standing Partners in Changing Times. Report of the Task Force on the Future of German-American Relations," GMF Paper Series (May 2015), <http://www.gmfus.org/publications/longstanding-partners-changing-times>; World Economic Forum, "Global Risks 2015," Insight Report (2015), <http://reports.weforum.org/global-risks-2015/>.

Acknowledgements

1. Ursula von der Leyen, "Speech by the Federal Minister of Defense, Dr. Ursula von der Leyen," on the Occasion of the 51st Munich Security Conference, 6 February 2015, https://www.securityconference.de/fileadmin/MSC_/2015/Freitag/150206-2015_Rede_vdL_MSC_Englisch-1_Kopie_.pdf.



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