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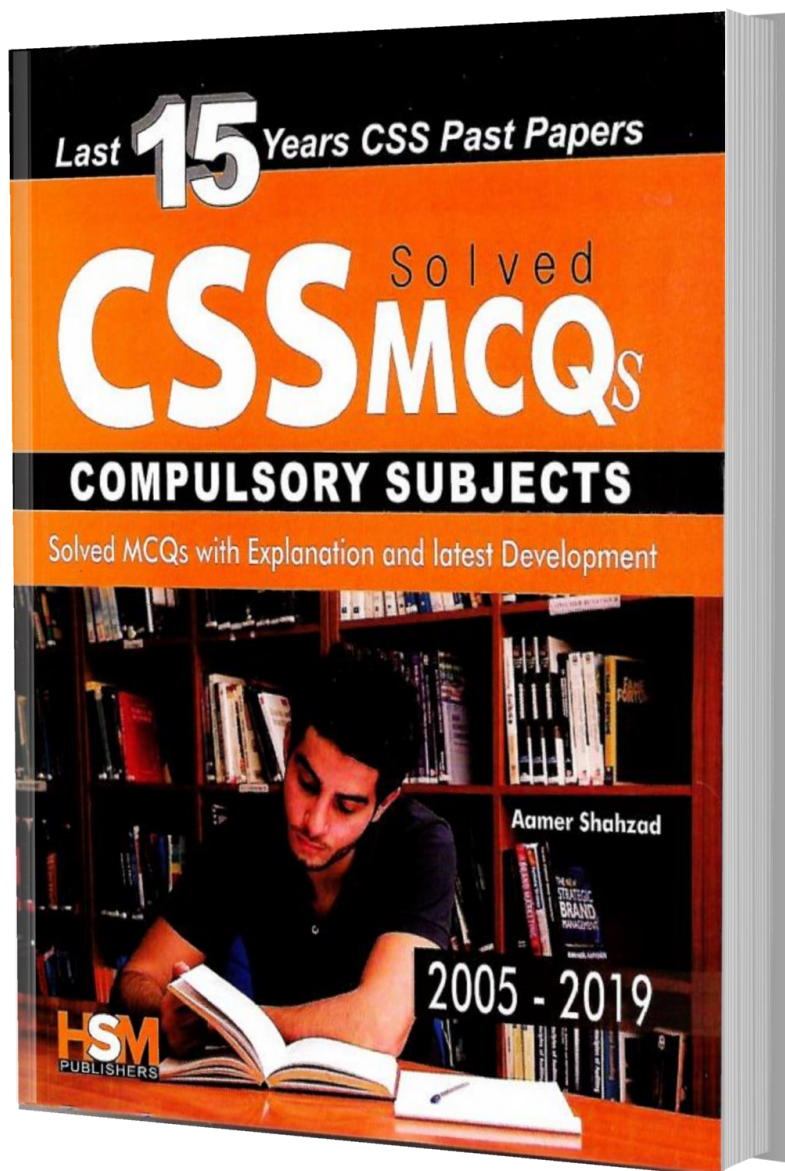
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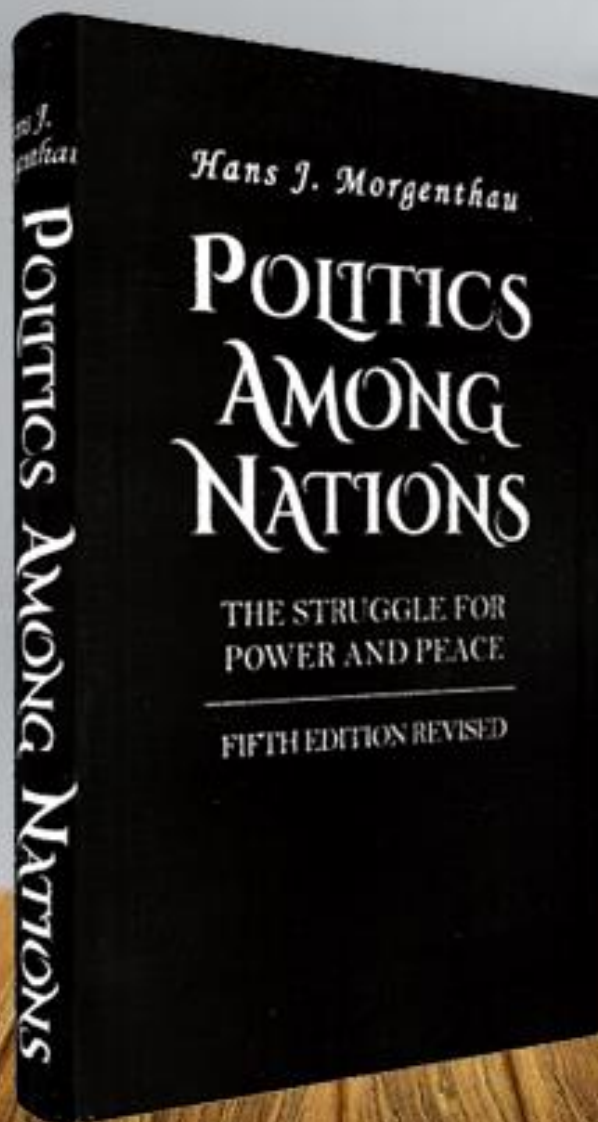


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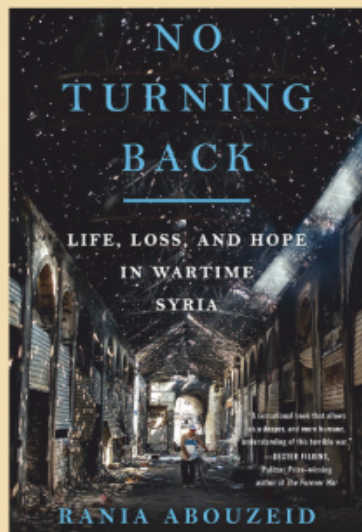
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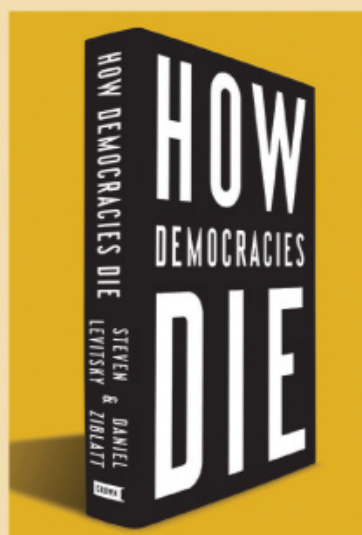


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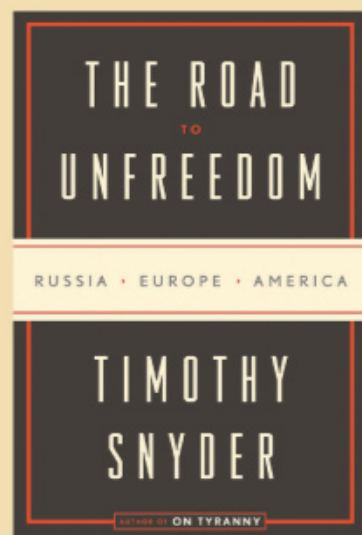
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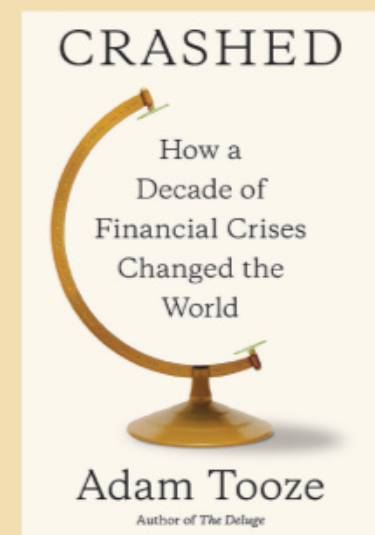
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SPECIAL REPORT

Solutions for Mission Success: New Approaches to Weapon System Cybersecurity

True cybersecurity in weapon systems requires new ways of thinking, ranging from looking at cybersecurity through a mission lens, to using a common language, to building a pipeline of cyber talent and expertise.

Those were just a few of the important insights that emerged at the recent roundtable on cybersecurity for weapon systems, convened by *Foreign Policy* in partnership with Booz Allen Hamilton as part of their Defense and National Security Roundtable Series.

“The non-kinetic war is going on around us every day.”

Participants in the roundtable included senior leaders in the Office of the Secretary of Defense (OSD), representatives of the Joint Staff, the Services, the U.S. Cyber Command and a federally funded research and development center (FFRDC), as well as senior leaders at Booz Allen.

Solutions for Mission Success: New Approaches to Weapon System Cybersecurity
A FOREIGN POLICY DEFENSE & NATIONAL SECURITY ROUNDTABLE SERIES REPORT

Booz | Allen | Hamilton

March 21, 2019

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As roundtable participants noted, what makes modern U.S. military weapons so lethal is automation and connectivity — is precisely what makes them more vulnerable to cyberattacks. Balancing that potency and vulnerability, they said, can be difficult. Many weapon systems functions are carried out by complex systems comprised of control systems and embedded IT. And because those systems rely on different architectures, interfaces and protocols than do traditional IT, it can be particularly challenging to protect them, and achieve other results, with conventional cybersecurity tools and approaches.

THE IMPORTANCE OF A MISSION FOCUS
 Several roundtable participants suggested that the key to cybersecurity is treating it as a function of operational and mission readiness. The true test, they said, is not whether particular weapons systems or platforms are cyber secure, but rather whether the mission itself — both defensively and offensively — can be carried out in the face of a debilitating cyberattack. Getting such a clear mission focus isn't always easy — but it's critical to making the right decisions about cybersecurity funding and priorities, several participants said.

“I think the challenge is recognizing that networks are warfighting platforms,” said one participant. “And until we more broadly take ownership of the fact that this is how we fight — by sharing data — we’re going to be challenged.” Said another participant: “This is a warfighting issue, and we’re not treating it like a warfighting issue.”

Another key aspect of mission focus is the issue of legacy systems. As several participants noted, the vast majority of the current weapon systems are legacy, rather than in development — and get there's not nearly enough funding to address all of their vulnerabilities. Thinking about those vulnerabilities from a mission standpoint, several participants suggested, can help organizations determine which are most critical. That approach, they said, can guide

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contributors



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Mara Hvistendahl is writing a book on industrial espionage, China, and the FBI, which will be published in 2020. Her most recent book, *Unnatural Selection: Choosing Boys Over Girls, and the Consequences of a World Full of Men*, was a finalist for the Pulitzer Prize and the Los Angeles Times Book Prize. Her writing has been published in the *Atlantic*, *Popular Science*, *Scientific American*, the *New York Times*, and *Wired*.



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from the editor in chief

WHILE IT'S NOT QUITE TRUE that espionage has always been dominated by the professionals—the dozen spies Moses sent into Canaan (as told in Numbers 13) were definitely amateurs, as were Nathan Hale and Mata Hari—it's certainly been the case since World War II. But that's now changing. In the last decade or two, the expert nature of spycraft, like so many other parts of the field, has started to shift. Thanks to a bewildering mix of economic, social, political, and, most of all, technological changes, we have all become potential spooks—and targets. Just consider what those immensely powerful and heavily encrypted little computers we all carry around in our pockets are up to. Together with the advent of superfast 5G communications and the internet of things, smartphones make it increasingly difficult to know what's happening to our and others' data. Now take that individual problem and imagine it on a national scale. What will all those challenges mean for the future of espionage and the security of countries, companies, and people? These are some of the questions we've sought to explore in FOREIGN POLICY's spring issue.

In "The Spycraft Revolution" (Page 20), **Edward Lucas**, a scholar at the Center for European Policy Analysis, charts these and other winds now buffeting the world's second-oldest profession and argues that, to stay relevant, the West's intelligence agencies need to rapidly adapt, in part by embracing the commercialization of their field.

Elisabeth Braw of the Royal United Services Institute also focuses on commerce—specifically how and where the technology that governments, companies, and individuals rely on so heavily is made. As Braw shows in "The Manufacturer's Dilemma" (Page 28), global supply chains have become so complicated, and now depend on so many different subcontractors scattered around the world—any of which could insert spy- or malware into critical devices—that securing civilian and government tech has become dauntingly

difficult. To protect ourselves, she argues, countries and companies need to localize their industries as much as possible while doing military-style contingency planning to prepare for the worst.

Calder Walton and **Mark Galeotti** of the Harvard Kennedy School and University College London, respectively, both discuss the geopolitical issues that are transforming espionage or will be transformed by it. In "The Spies Who Came in From the Continent" (Page 34), Walton describes what Brexit may do to a key advantage that has long helped Britain punch above its strategic weight: the competence of its famed intelligence services. Once cut off from Europe, Walton warns, these agencies could find themselves greatly diminished—and could lose their closest and most powerful partner, the United States. In "Spooks in the Kremlin" (Page 17), meanwhile, Galeotti describes President Vladimir Putin's unhealthy but increasing reliance on his country's top spies and explains how dangerous that trend is for Russia and the world.

Outside our espionage package, two other essays focus on geopolitics and so are worth mentioning here. In "How to Win America's Next War" (Page 48), **Elbridge Colby**, a former U.S. deputy assistant secretary of defense, describes how the U.S. military must be reshaped to fight Russia and today's other great power, China, instead of the counterterrorist campaigns that have preoccupied it for almost two decades. And finally, in "The Trump Doctrine" (Page 40), **Michael Anton**—a former deputy assistant to the U.S. president for strategic communications—explains the origins and implications of the administration's foreign policy.

Jonathan Tepperman



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How to Win the Rat Race

One Canadian province has virtually eliminated its vermin—and shows how others can too.

By James Palmer

ALONG AN 18-MILE STRIP OF LAND between the Canadian province of Alberta and its neighbor Saskatchewan, the rat patrol keeps guard. An eight-person team, armed with poison and shotguns, hunts daily for any sign of the rodent invaders.

The Alberta rat patrol checks more than 3,000 farms a year, but it rarely sees an actual rat. Alberta has 4.3 million people, 255,000 square miles, and no rats—bar the stray handful that make it into the killing zone each year. Ever since 1950, a sternly enforced program of exclusion and extermination has kept the province rat-free. Nowhere else in the world comes close; the only other rat-free areas are isolated islands such as the remote British territory of South Georgia.

Public support and education have been key to Alberta's success. Locals use hotlines (310-RATS or 310-FARM) to report any sign of rodents, though false alarms are common. School programs educate kids about the telltale signs of the invaders. Keeping pet rats is banned and can earn you a fine of almost \$4,000.

Across the world every year, mice and rats are estimated to cause nearly \$20 billion in damage and wipe out as much as a fifth of the world's food supply. They're not just enthusiastic gnawers. They're also prolific urinators, and rat pee frequently contaminates goods. Rats are thought to have spread the Black Death in the Middle Ages, as they do other viruses today.

Rats arrived in Canada in the 18th century, but geographical isolation kept the invaders from reaching Alberta for a solid two centuries, until the first signs of the rodents started to appear along the border with Saskatchewan after the end of World War II. That's when Alberta's anti-rat agenda was born. It wasn't the first program of its kind: Public involvement in pest control boomed in the 20th century with the spread of disease theory and the motivational push of wartime.

In Vietnam, for example, the creation of the Hanoi sewer system at the turn of the 20th century saw a boom in rat numbers; in response, in 1902 the French colonial government began paying a bounty for their carcasses—that is, until it realized locals were breeding them to cash in on the reward. In Washington, D.C., meanwhile, a 1917 program attempted to wipe out feral cats, with the enthusiastic backing of the local Cat Fanciers' Association. "They saw alley cats as a threat to their precious kittens," said Hayden Wetzell, a local historian. "It was wartime, so the slogan was 'Kill a Cat for Your Country.'"

Canadians may not have been as enterprising as the Vietnamese or as bloodily patriotic as the Americans, but they have been far more successful. The brown rat (*Rattus norvegicus*) thrives only among human settlements, so farms and towns became the battlefields for the fight against invasion in Alberta. World War II propaganda set the tone for the province's early campaign, during which 2,000 posters were distributed across the border region. "Rats are coming!" cautions one grayscale poster. "You can't ignore the rat!" reads another. "We need to be properly organized and know what



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to do, in order to fight the battle successfully," a 1954 booklet sternly warns. Mass chemical warfare cleansed the borderlands, with some 63,000 kilograms of arsenic powder blown across thousands of buildings.

After 1959, the volume of annual infestations was dramatically reduced, down from 500-600 a year to fewer than 200 by 1980; today, it's a handful annually. (A 2012 infestation in the Medicine Hat landfill was a record-setter, with nearly 150 rats eventually rooted out.) The propaganda didn't let up: "The only good rat is a dead rat," reads a 1975 poster. Today, the provincial government focuses mostly on stories placed regularly in the Canadian media covering the success of the program, instead of the sneakiness of the rodent. Rat control has become institutionalized, not only through regular inspections but through a public proud of Alberta's rat-free status and keen on maintaining it. The whole program currently costs just about \$380,000 a year—most of the money is



LEFT: One of the rat control officers who patrolled Alberta's border with Saskatchewan in 1986.

FIRST PAGE AND BELOW: Alberta government rat posters from 1948 and 1996.



spent on exterminators' salaries—but saves Alberta's farmers millions.

Across the Pacific, another former colonial outpost is struggling with European invaders, at far greater cost. Alberta's success might be imitable, but other countries lack the geographical advantages that confine the rat to a narrow access corridor. New Zealand has had a rodent problem ever since the Maori brought the kiore, or Polynesian rat, with them in canoes in the 13th century. But the first *R. norvegicus*—far larger and meaner than its Polynesian cousin—crawled off a ship in the 1770s and discovered a land of plenty. To the rat, the eggs of New Zealand's bird life, which had never adapted to murine predators, offered an all-you-can-eat buffet. Rats and other nonnative species, such as possums and stoats, slaughter approximately 25 million birds a year. The slaughter, plus rats' usual damage to crops, cost the economy \$2.3 billion annually, according to the government.

New Zealand has battled to keep as

much of the country rat-free as possible, especially its isolated islands that preserve *taonga* (“treasures” in Maori), unique flora and fauna such as the kiwi and the kakapo parrot. But rats are master swimmers and hidiers; one test subject, Razza the rat, evaded capture for more than four months, becoming the unlikely hero of a children's book. All it takes to defeat a mass extermination campaign is a single pregnant survivor.

That's why the government has given up on half-measures; instead, a hugely ambitious program launched in 2016, Predator Free New Zealand, envisages wiping out not only rats but stoats and possums by 2050. It's an expensive effort. The pilot scheme—conducted on two inhabited islands, covering almost 15 square miles—cost about \$3 million. The plan is to assault the rats (and other invasive predators) on all fronts, using drones to blitz them from above and map their locations, customized poisons and traps on the ground, and perhaps (although it's highly controversial)

genetic modification to permanently alter breeding habits.

Part of the work, said the conservation biologist James Russell, a key mover in the program, must focus on public education and support. Drawing on models such as the Alberta strategy has helped create an informed and engaged public, with more than 1,000 volunteer groups involved in wildlife protection. In Canada, the program built on wartime language, engaging a public that was already eager to come together to fight an alien menace and focusing on the danger to human civilization and industry. In New Zealand, it instead draws on the love of local wildlife and the natural world. “New Zealanders are in touch with nature,” Russell said, “and they play a huge role in protection efforts—they're often the first to report new rat sightings to the hotlines.”

Climate change is giving a new urgency to the project. A record-hot summer created the breeding conditions for a rat explosion. Hotter temperatures let rats survive the winter better, Russell said, and to reach higher densities in the summer, pushing greater numbers into areas such as southern New Zealand, where the threat was once relatively low.

Beyond rats, a hotter world is making the threat of invaders greater across the board. As climate shifts, threatening flora and fauna are moving with it, even into once inaccessible areas. In the United Kingdom, a degree or two of warming could create a welcome home for the ecology-wrecking Argentine ant. Australia's already stressed native species, including pygmy possums and wombats, are especially vulnerable to invaders such as foxes. Other governments are already experimenting with apps and hotlines to report invasive species. But as the planet warms, the need for far more extensive programs of education and eradication like Alberta's will only grow. ■

JAMES PALMER (@BeijingPalmer) is a senior editor at FOREIGN POLICY.



The Case Against Frugal Innovation

Jugaad once symbolized India’s potential, but the endless shortcuts are now holding the country back. *By Ravi Agrawal*

WHEN I WAS A CHILD GROWING UP IN KOLKATA, I could count on one hand the different types of cars chugging around the city’s streets. Each of the brands was made in India. In those years, which preceded the country’s 1991 economic reforms, global companies were still cut off from India’s then-nascent, protectionist economy. It was with some wonder, then, that I noticed what looked like a Mercedes-Benz sedan pull up by my school one day. But this was no luxury German car. On closer inspection, the strange vehicle was in fact the most common Indian sedan of the time but with an unusually sleek and elongated hood welded on and painted over to match the rest of the car’s body. As a finishing touch, atop the hood sat the famous three-point Mercedes star.

I didn’t know it then, but there was a word to describe

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what I had just seen: *jugaad*. It’s a Hindi word—pronounced jew-GAAR—that means to procure, but its usage had evolved by then to connote a “hack” or quick fix. One source for the evolving usage of this term was northern India, where farmers had taken to building makeshift trucks that were powered by agricultural water pump engines. These bits-and-pieces contraptions came to be known as *jugaads*. Other examples proliferated across the country. There was the television antenna created out of metal clothes hangers; the electric iron that flipped over to become a stove; the discarded plastic bottle, cross-sectioned and transformed into a pair of sandals; the bucket with tiny holes that, when hung up high, turned into a shower. The concept of *jugaad* represented a way for low-income Indians to access modern conveniences on the cheap. And while there’s no better term to explain

the inventiveness of the Indian psyche, it also represents a mentality that now threatens to hold back the world's fastest-growing large economy.

As the decades passed and India's markets gradually opened up, the idea of jugaad began to evolve still further: It became a point of pride for Indians of all income levels. As cellular phones became common in the 2000s but usage rates remained expensive, Indians adopted a phenomenon known as the "missed call": You would call a friend, and then before that person picked up and incurred a cost, you would hang up. That person would see that you had called and would call you back on a landline—all for free. This was classic jugaad, an inexpensive way to communicate, a clever little tech hack. (The missed call went on to become a staple of business communications as well: Calling and hanging up on your bank, for example, would prompt it to text you your latest billing statement for free.)

Observers in the West watched these developments closely. McKinsey consultants began to cite India's frugal innovation as a new model for multinational conglomerates. The U.S. chain Best Buy began holding internal jugaad workshops in a bid to generate more sales per store. Books on the subject flooded Western markets: One popular example, published in 2012, was titled *Jugaad Innovation: Think Frugal, Be Flexible, Generate Breakthrough Growth*. Management gurus, media pundits, and foreign correspondents began to proclaim that the power of jugaad thinking would enable India to become a world-class economy.

If only. As India has gotten richer—per capita income has grown nearly 400 percent since 1990, according to the World Bank—the appeal of cheap hacks is diminishing. And while there will always be examples of good and bad jugaad, one can argue that putting frugal innovation and workarounds on a pedestal will hold modern India back more than it advances the national interest.

In February 2016, for example, the Indian government held its much-publicized Make in India summit in Mumbai, the country's financial capital. As often happens in India, construction for the venues was delayed. But workers and officials were adamant that they would get the work done: They had jugaad, after all. Sure enough, just in the nick of time, the construction was indeed completed. But one venue, the site of a cultural event at the city's Chowpatty Beach, caught fire in the middle of a dance performance, and 25,000 attendees had to run for their lives. Fire hazard protocols had been abandoned in the rush to deliver a Make in India venue. "Shame in India," declared the next morning's cover of the *Mumbai Mirror*.

Later that year, in November, there was another public example of the jugaad psyche gone awry. Prime Minister Narendra Modi, in an emergency prime-time television address, announced what came to be known as demonetization: a sudden nationwide recall of all 500 and 1,000 rupee bills, representing 86 percent of the total cash in the financial system. The aim, Modi said at the time, was to crack down on corrupt businesspeople who had evaded taxes and stashed away vast amounts of paper money. The move—widely denounced by economists—was presented as a clever monetary hack: Tax evaders would either be forced to abandon their cash or get caught trying to turn it in for new currency notes. But this jugaad was too good to be true. Not only did a sudden shortage of cash bring immense pain and uncertainty to daily wage laborers across the country, but it also slowed down India's GDP growth by as much as 2 percentage points, according to a recent paper by the U.S. National Bureau of Economic Research. And tax evaders mostly thrived: The government got a taste of its own jugaad medicine as India's rich found creative ways to launder their money, including by paying employees' salaries in advance cash payments.

Frequent policy changes are another cause for wavering confidence in India. In 2016, after decades of protectionism in the retail industry, New Delhi began to allow foreign e-commerce platforms to operate online marketplaces—and sell products through local affiliates—so long as these platforms didn't sell directly to consumers. (It would have been unpopular to completely open up the online retail sector, so the move was seen as a jugaad-style hack for big U.S. companies to operate in India.) As a result, Amazon made investments in wholesale distributors and structured its supply chains around connecting them to customers. And in 2018, eager to compete in a new frontier, Walmart invested \$16 billion in Flipkart—a local rival to Amazon—to gain a foothold in one of the world's fastest-growing online retail markets. But the party came to a halt last December, when New Delhi suddenly announced new e-commerce rules closing the 2016 loophole: Foreign companies such as Amazon and Walmart could no longer sell products through their local affiliates and would instead have to become pure online marketplaces like eBay. Supply chain analysts estimate the changes could wipe out nearly a third of Amazon's projected \$6 billion in Indian sales this year. The Western hackers had gotten hacked.

Jugaad seemed charming in the 1990s and 2000s. But it's now time to move on, and one reason why is that half of India's population was born after 1991; most Indians have grown up under more favorable circumstances than their parents and don't want to make do with quick fixes. For India to become a developed economy, it now needs to avoid homegrown hacks and focus on doing what has worked for other rich nations: making proper long-term investments in research, development, infrastructure, regulations, and training. ■

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arguments



Catching China by the Belt (and Road)

How Washington can beat Beijing's global influence campaign.

By Ethan B. Kapstein and Jacob N. Shapiro

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WILL THE DEVELOPING WORLD FALL UNDER CHINA'S SWAY? Many policymakers in Washington certainly fear so, which is one of the reasons they have created the new International Development Finance Corp. (IDFC), which is slated to begin operating at the end of this year. Like the Marshall Plan, which in the post-World War II years used generous economic aid to fight the appeal of Soviet communism in Western Europe, the IDFC aims to help Washington push back against Beijing's sweeping Belt and Road Initiative.

The new institution should allow the United States to better align its commercial and development goals with its foreign policy in the developing world. But the IDFC will start at a significant disadvantage: relative poverty. Whereas the new IDFC will have about \$60 billion in capital, the Belt and Road Initiative is a \$1 trillion effort. By some estimates,

Chinese workers construct a shopping mall at a retail and office complex, part of a Chinese-backed building boom in Colombo, Sri Lanka, in November 2018.

Pakistan alone has already received more cash commitments from China than the value of the entire IDFC budget.

This shortfall raises the question of what else the United States should do if it's serious about countering Chinese influence. The answer is to use a version of what some economists call the "judo strategy"—a method small firms deploy to compete against larger companies. Judo strategies tend to involve turning what is supposedly a competitor's key asset—in this case, its size—against it. For example, smaller retail firms can outcompete bigger chains bogged down by costly bricks-and-mortar infrastructure by selling things more cheaply online. Or they can offer a personalized consumer experience that eludes firms operating at a larger scale.

When it comes to U.S.-China competition, a successful U.S. judo strategy should consist of three building blocks. First, Washington should leverage the fact that China is violating well-established international norms with its lending policies. Second, the United States should draw attention to the corruption underlying the Belt and Road Initiative. And third, U.S. officials should creatively use IDFC resources to liberate countries that find themselves in Beijing's financial clutches.

Before attempting to compete with China, however, the United States should study Beijing's objectives—which are often misunderstood. The Belt and Road Initiative is as much a domestic initiative meant to address structural weaknesses in the Chinese economy as it is a grand foreign-policy strategy. Given a combination of poor demographics, growing international hostility to its trade policies, and the specter of weakening domestic demand,

Beijing cannot rely on homegrown supply and demand to solve its current and future economic problems. The Belt and Road Initiative represents an attempt to use China's enormous financial reserves to create new markets for Chinese goods, services, and unskilled labor. That's why the use of Chinese labor to build Belt and Road infrastructure is so often part of the deal. Recipients of Chinese investments are effectively financing Beijing's efforts to manage its internal economic problems. Understood this way, the Belt and Road Initiative reveals Chinese weakness rather than strength. And that's why a judo strategy could be so effective.

The United States should start by using existing international norms—set by multilateral institutions such as the World Bank, the International Monetary Fund (IMF), and the Organization for Economic Cooperation and Development (OECD)—to constrain China's predatory lending practices and the political leverage they bring. For example, the OECD has long-established norms against the use of tied aid—funds that require recipients to use that foreign aid to purchase goods and services from the donor. Tied aid is frowned on because it forces recipient countries to spend their money inefficiently. And even if Belt and Road funding—which primarily takes the form of loans—does

Recipients of Chinese investments are effectively financing Beijing's efforts to manage its internal economic problems.

not formally constitute foreign aid, Beijing often violates the spirit of that principle by mandating that infrastructure projects use Chinese contractors.

Washington should leverage these and other established norms of international development to isolate Beijing. China and the OECD's Development Assistance Committee, for example, have formed a study group that gives China the ability to claim it is adopting best practices in foreign assistance. If China continues to neglect such practices, then the United States, which is the largest contributor to the OECD, should urge it to disband that group—in a very public fashion. Washington should also pressure the heads of the World Bank and IMF—two organizations that depend on its support—to highlight Beijing's lending activities much more vigorously than they have done to date.

A second part of Washington's judo strategy should be to highlight corrupt Belt and Road payments. Beijing has shown no scruples about using corrupt practices abroad to further its economic and foreign-policy agendas. A January 2019 investigation by the *Wall Street Journal*, for example, revealed how the Chinese offered to bail out a troubled Malaysian investment fund in return for infrastructure projects that would give their firms "above market profitability." More generally, many Belt and Road partners, including Kazakhstan and Laos, suffer from endemic corruption.

So how should the United States respond? The IDFC could try to target local elites with financial inducements, but that's a risky gambit; the United States should never be in the position of trying to out-bribe an adversary. Doing so is ethically reprehensible, and in a

society as transparent as America's, the media would undoubtedly expose the story, causing potentially irreparable harm to the IDFC's reputation. Even if this weren't a danger, Beijing is also probably much better than Washington at using corruption effectively; it has the recent experience.

Fortunately, there is another option. Corruption is rarely popular among citizens whose long-term economic health is being sacrificed to enrich corrupt officials. By relentlessly publicizing corrupt practices when they come to light, Washington can make such practices difficult for both Beijing and the recipient government to get away with. If China's generosity is seen to come with the risk of political ruin, beneficiaries will start thinking twice before accepting its largesse.

Shining a harsh spotlight on those who profit from Beijing's bribery is cheap, especially compared with compromising U.S. principles. It also draws on a long tradition in U.S. foreign policy. One of the keys to Washington's success after World War II was its investment in elaborating international norms and standards that advanced its interests along with everyone else's. And while the Trump administration has largely eschewed multilateral norms as the basis for its America First foreign policy, it's time for Washington to recognize that these norms—which were largely created by the United States—serve the national interest.

The final aspect of a judo strategy relies on U.S. financial markets, which can be exploited to release target countries from the onerous lending terms that China imposes on loan recipients. Already, several countries, including Pakistan and the Maldives, are balking at the loan repayment schedules China has set, and no one has overlooked the fact that in December 2017 Sri Lanka had to surrender a major port to Beijing as compensation for its nonpayment on outstanding loans. Yet no single debtor country can realistically face off

against China on its own. This is where the United States can step in by using the IDFC to help renegotiate agreements, either on behalf of the debtor country or by buying up and then refinancing the debt with longer repayment terms—something made possible by the depth and breadth of the West's financial markets. A model here is provided by what the international community did with Latin American debt during the 1980s. Led by the United States, it created new financial instruments such as "Brady bonds" (named after former U.S. Treasury Secretary Nicholas Brady) to restructure the massive debt, reducing the payment burdens that countries such as Brazil faced.

The IDFC should also take advantage of the fact that no other economy can match the scale and inventiveness of U.S. financial markets. It should begin working with the U.S. financial industry to figure out what would be needed to create a refinancing facility that would be attractive to both Western lenders and debtor countries. It should also use its capital to support early repayment of loans for sustainable projects already funded under the Belt and Road Initiative. In these ways, the IDFC can help loosen Beijing's grip on its partners.

In confronting China's Belt and Road project, the United States begins with several disadvantages: Washington lacks Beijing's appetite to spend money, as well as its ruthlessness in transactions. To add to that, the U.S. private sector does not have a compelling interest in deploying large sums of capital in the developing world given investment opportunities elsewhere. Taking these factors into account, the United States needs to deploy a judo strategy—and in so doing, it can upend China's effort to throw its economic weight around. ■

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THE
FUTURE
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Spooks in the Kremlin

The dangers of Putin's unhealthy reliance on Russian intelligence. *By Mark Galeotti*

T **THREE LEATHER-BOUND FOLDERS SHAPE THE WORLD**—or Vladimir Putin's world, at least. Every morning, after his swim and workout, Russia's president begins work by looking at these three briefing documents: The domestic Federal Security Service (FSB) gives him an analysis of the state of the country; the Foreign Intelligence Service (SVR) provides an overview of the global situation; and the Federal Protective Service (FSO), his personal guard, contributes a summary of goings-on among the domestic elite.

There is nothing unusual in a head of state receiving morning briefings. In the United States, for example, the

President's Daily Brief keeps critical intelligence flowing into the Oval Office. There are, however, several distinctive aspects to the Russian process. Together, they suggest that Putin's government is transforming from an autocracy into a form of government one might call a spookocracy, a government ruled by spies. The implications are worrying for Russia—and the world.

Much is made of Putin's early career in the KGB—the Soviet-era security agency—and his later 13-month stint, in 1998 and 1999, as director of the FSB. By all accounts, however, Putin was a mediocre field officer and an unmemorable director. In his 16 years in the KGB, his main posting was to East Germany, where he largely whiled away the hours compiling reports and collecting press cuttings for others to study; he undertook no missions in the West, received no awards, and had no command responsibility.

Putin spent the immediate years following the collapse of the Soviet Union largely working in the St. Petersburg city government, where he rose to become deputy mayor. After a seven-year hiatus from the intelligence world—a world through which he had failed to work his way up—he was appointed to run the FSB for essentially political reasons: President Boris Yeltsin wanted someone who he thought would be loyal, reliable, and willing to cover up his bosses' misdeeds and peccadilloes. Those motivations were apparent to the FSB's career staff; according to a former senior figure within the service, Putin “didn't know the people around him or how the service worked at that level.”

Putin remains an intelligence amateur. Less a seasoned veteran of what the Russians call the special services, he is rather their greatest fanboy. The veteran spooks Putin has recruited into his inner circle include his former chief of staff Sergei Ivanov (ex-KGB) and Deputy Prime Minister Dmitry Kozak (formerly of the military intelligence service, GRU), as well as oligarchs such as Rosneft

chairman Igor Sechin (widely believed to be a former GRU officer) and Nikolai Patrushev, the current secretary of Putin's Security Council, which is the closest thing to a national security advisor in the Russian system. (A former director of the FSB himself, Patrushev makes Putin look dovish by comparison; he has indicated that he believes the United States wants to dismember Russia.)

Putin cozies up to high-ranking spies because they teach him about a world that he was unable to master himself; he masks his deficiencies by surrounding himself with these experts. In response, they compete for his favor. They have learned that nothing wins Putin's respect so much as telling him what he wants to hear, rather than what he needs to know. As one former Russian intelligence officer told me, they have learned that "you don't bring bad news to the tsar's table."

Russia's special services have an outsized influence in shaping Putin's worldview. According to sources in the presidential administration, for example, when Ukraine was in the grip of the Euromaidan revolution in 2013 and 2014, the SVR warned that incumbent President Viktor Yanukovich's position was at serious risk. The FSB, by contrast, reassured Putin that everything was under control. But when Yanukovich was forced to flee to Russia, the SVR wasn't praised for its foresight. Instead, it was punished, with several SVR officials getting fired, even as the more politically savvy FSB dodged accountability. Putin seems to have accepted the FSB's explanation that Western intelligence was behind the Ukrainian revolution—and that it was the SVR's fault for not having warned as much.

It is no surprise that the competition among Russian intelligence agencies to please the boss often becomes cannibalistic. Unlike the President's Daily Brief, which is a single document compiled by the director of national intelligence, each Russian service briefs the president individually—in person and on paper. Nor is there a body like the

British Cabinet Office's Joint Intelligence Organisation to synthesize alternative perspectives from the different agencies and to try to resolve contradictions before they reach policymakers. The result is an escalating spiral of politicized intelligence, as agencies compete to present the most ideologically appealing perspectives—and to stab each other in the back.

The Russian spy community's sycophancy has worsened in recent years. Putin, like so many authoritarian leaders, has over time become less tolerant of alternative perspectives, and he has limited his circle to yes men and fellow hawks. This context may explain why Putin has not seen through the spooks who play a disproportionate role in setting his agenda. It is not that they are in any way dominant; Putin is still the unquestioned tsar and is not above playing the services against one another. Rather, it is that he indulges them and is willing to take their word above that of the other institutions meant to inform and advise him. Putin used to personally speak to a wide range of Russian officials and traveled the country to experience public problems firsthand. Now, he scarcely even leaves his palace for his offices at the Kremlin. It usually takes a disaster, military exercise, or sporting event to get him out of Moscow.

Putin's determination to trust his spooks has led to a string of miscalculations. After the Russian seizure of Crimea in 2014, the FSB and GRU advocated a subsequent proxy war in southeastern Ukraine. They assured Putin that Kiev would quickly capitulate and accept Moscow's hegemony. Five years on, the Russians are still mired in an undeclared war that has united Ukraine and brought painful economic sanctions.

In 2018, when the GRU tried to poison Sergei Skripal—a former officer who had become a British spy—the military intelligence service and the SVR predicted the assassination would lead only to temporary tensions with the United Kingdom. In fact, the attempt triggered

an unprecedented global reaction: 29 countries threw out 153 Russian diplomats and spies. Even Russia's botched pension reforms last year, which led to nationwide protests and an embarrassing government climbdown, were ultimately pushed through because, according to parliamentary sources, the FSB was confident the public would meekly accept them.

One despondent former Ministry of Foreign Affairs staffer was quite open about the influence of Russia's spooks, saying that by the time Putin reads the ministry's briefings, "he's already made up his mind based on what he's been told by Patrushev and the special services. When our briefing runs up against some paranoid lunacy they're pushing, he doesn't ask why they're misinforming him—he tells us we're being naive."

When does autocracy become spookocracy? Formal power does not need to be usurped; the chief executive may simply become dependent on a single policy community for information, advice, and options. The results are on display in today's Russia, in the form of intelligence briefings that are systematically and deliberately framed to flatter the president's prejudices and paranoid assumptions.

Russia is in a dangerous situation. Its spookocracy means that the struggle for Putin's ear and thus his agenda becomes more important than giving good advice. It locks sources of alternative—and often better—guidance out of the room. Most seriously of all, it drives even rational policy actors to make bad decisions. Although the risk of open conflict with the West remains small, it is worth bearing in mind that most wars are triggered not by a lack of intelligence but by bad intelligence. ■

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THE
FUTURE
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ESPIONAGE

Changes in technology, politics, and business are all transforming espionage. Intelligence agencies must adapt—or risk irrelevance.

BY EDWARD LUCAS

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THE WORLD OF ESPIONAGE is facing tremendous technological, political, legal, social, and commercial changes. The winners will be those who break the old rules of the spy game and work out new ones. They will need to be nimble and collaborative and—paradoxically—to shed much of the secrecy that has cloaked their trade since its inception.

The balance of power in the spy world is shifting; closed societies now have the edge over open ones. It has become harder for Western countries to spy on places such as China, Iran, and Russia and easier for those countries' intelligence services to spy on the rest of the world. Technical prowess is also shifting. Much like manned spaceflight, human-based intelligence is starting to look costly and anachronistic. Meanwhile, a gulf is growing between the cryptographic superpowers—the United States, United Kingdom, France, Israel, China, and Russia—and everyone else. Technical expertise, rather than human sleuthing, will hold the key to future success.

In another major change, the boundaries between public and private sector intelligence work are becoming increasingly blurred. Private contractors have become an essential part of the spy world. Today, intelligence officers regularly move into the private sector once they leave government. The old rule that you are “either in or out” has become passé. That shift has allowed some ex-spies to get extremely rich, but it is also eroding the mystique—and the integrity—of the dark arts practiced in the service of the state.

Finally, intelligence agencies in democratic countries no longer enjoy the legitimacy bequeathed on them in the

A COVER IDENTITY THAT WOULD HAVE BEEN ALMOST BULLETPROOF ONLY 20 YEARS AGO CAN NOW BE UNRAVELED IN A FEW MINUTES.

past or the glamor that rubbed off from Hollywood and spy fiction. Public skepticism about the means and aims of a potentially money-grubbing, thuggish, and self-interested caste of spooks has grown. Spymasters increasingly have to justify what they do and accept unprecedented levels of legislative and judicial scrutiny.

THE BIGGEST DISRUPTIVE FORCE IS TECHNOLOGICAL. Traditional spycraft has always relied on deception based on identity. Spotting, developing, recruiting, running, and servicing intelligence sources involves concealing what you are doing. If you fail, your adversary may find out what you’re up to, endangering your source and totally undermining your efforts. Once an adversary learns that an intelligence operation is underway, he or she can use it to discover more clues or feed you false or tainted information.

Traditionally, spies depended on cover identities. Until a few years ago, a visiting Canadian in Moscow who claimed to be a graduate student in architecture could present a cover that would be difficult for Russian counterintelligence officers to crack. They could check her documents, grill her about her background, search her possessions, or follow her. They could even use a gifted individual with a photographic memory for faces to scour books full of pictures of known or suspected intelligence officers. But if none of those avenues produced any clues, all they could do was watch, wait, and see if the suspect made a mistake.

Not anymore. A cover identity that would have been almost bulletproof only 20 years ago can now be unraveled in a few minutes. For a start, facial recognition software—mostly developed by Israeli companies and widely deployed in China and elsewhere—allows governments and law enforcement agencies to store and search vast numbers of faces. They can then cross-check such data with the slew of personal information that most people voluntarily and habitually upload online.

Counterintelligence officers start with the internet. Has their target appeared in any photo anywhere? If so, was the context of that photo compatible with the target’s cover story? Then they use CCTV, gathered at home and from systems run by allies. If the Canadian architecture student does not appear in any social media linked to the Canadian university where she claims to have studied, her story starts to look shaky. It looks even worse if she can be seen on holiday in Hong Kong three years ago, socializing with U.S. officials based at the consulate there.

The most crucial element of the technological storm engulfing intelligence agencies is the mobile phone. This device not only records your communications once hacked—phone calls and messages received and sent—it also acts as a tracking beacon. It can easily be attacked to become even more intrusive. Given a minute of hands-on access, an adversary can make sure that the microphone is turned permanently on and that the phone continues transmitting even when the owner believes it to be switched off. The same malware can be installed by sending a text message.

One obvious solution would be to not carry a mobile phone or to use a “burner” device—a phone bought with cash and replaced frequently. But doing so creates an even bigger danger. In the case of the Canadian graduate student, having searched for her likeness online, a Russian counterintelligence inves-

tigator would then look at her phone data. If the investigator finds that she doesn't have one, that's highly suspicious. Only the very poor, the very young, and the very old don't carry some kind of mobile device these days.

Of course, if the student does have a phone, but the number is new, that's also suspicious. Most people seek to keep whatever phone number they first acquired even as they change devices. If the Russians then obtain her phone records (by hacking into her home provider's database or bribing someone there to look them up), they can discover where she has been, who has called her, and whom she has called. Tracking her movements may reveal only a fleeting interest in Moscow's architectural marvels—as well as other, more sinister interests. These might include stops on park benches, trips to obscure suburbs, or disappearances into the Moscow Metro during which the subject switched off her phone for hours.

Investigators can also combine these two tactics with a third: financial information. What is the student's credit rating? What plastic cards does she carry? Does her purchasing history and behavior match her cover story? Every one of these questions is revealing if answered and devastating if not. There are, after all, very few people who travel abroad without a bank account or credit rating, with no social media history, and a prepaid burner phone—and those who do tend to have something to hide.

Intelligence agencies have several ways of addressing these technological problems. One is to throw money at them, spending time and effort creating a bank of impeccable "legends" (cover identities) for their intelligence officers. This technique starts with false names, documents, and addresses—the traditional stock in trade of the spy world—but with a digital twist. Today, spies can rely on a LinkedIn entry, a plain vanilla credit rating, or a dormant Facebook account, all with enough detail to be

plausible but with too little distinctive material to make a serious check possible.

A second strategy is to use "cleanskins"—freshly recruited intelligence officers whose history reveals only their previous civilian lives. A third option is to treat identities as disposable—sending intelligence officers on one-off missions, knowing that afterward they will be burned forever. A fourth is to conduct espionage only in neutral or friendly environments: You still spy on the Russians or the Chinese but from London or Paris rather than Moscow or Beijing. None of these approaches is ideal. Either the risks and costs are high or the benefits are low—or both.

Meanwhile old staples of spycraft no longer work due to technological advances. Until recently, the dead-letter box was regarded as all but foolproof, an ideal location that both a source and a collection officer could plausibly visit—a bench in a cemetery for example. One party would leave behind some intelligence material, perhaps stored on a tiny memory card enclosed in chewing gum. The other party would then collect it. Even a team of experienced observers would struggle to see what was really going on.

Today such tactics rarely work. It is easy for Russian counterintelligence to track the movements of every mobile phone in Moscow, so if the Canadian is carrying her device, observers can match her movements with any location that looks like a potential site for a dead drop. They could then look at any other phone signal that pings in the same location in the same time window. If the visitor turns out to be a Russian government official, he or she will have some explaining to do.

THE MOST CRUCIAL ELEMENT OF THE TECHNOLOGICAL STORM ENGULFING INTELLIGENCE AGENCIES IS THE MOBILE PHONE.

Electronic communications have grown equally vulnerable. The more that intelligence agencies know about what normal behavior looks like, the more that anomalies and coincidences stand out: Why is the suspect using an internet cafe or a virtual private network? What websites is she visiting from her home computer and from her phone? Does she use encrypted messaging services? Has she developed a sudden interest in computer games (an easy way of sending messages to a source masquerading as another player)? What about her online shopping habits?

The same algorithmic techniques that digital security experts use to spot malware on networks and computers can

easily be tweaked to highlight other unusual behavior—sometimes much more effectively than human analysts could. Together, these techniques have severely constrained the ability of intelligence officers and their sources to operate safely and secretly. The cloak of anonymity is steadily shrinking.

A **S WESTERN SPYMASTERS SEEK** to manage the challenges presented by new technology, they are facing far greater political and legal constraints than their adversaries. Indeed, authoritarian states have an advantage over liberal democracies.

Many Western societies are fiercely debating the issue of intelligence oversight—and that debate is healthy. But for all their flaws, there is a categorical difference between the way big Western agencies operate—under judicial, legislative, executive, and other constraints—and the means and methods of their counterparts in places such as Russia or China. Getting access to mobile phone records in the West takes more than a mouse click. It typically requires a warrant, which must be sought through a bureaucratic process. In Moscow and Beijing, it's easy. Indeed, China's national security law expressly requires every individual and corporation, state-run or not, to aid the intelligence services.

The shift toward electronic intelligence collection also creates new risks and political difficulties for all parties because it blurs the distinction between espionage work and warfare. In the world of human intelligence, the difference between

AS POLITICAL SCRUTINY INTENSIFIES, WESTERN INTELLIGENCE AGENCIES ARE OPERATING IN AN UNFAMILIAR AND INCREASINGLY HOSTILE ENVIRONMENT.

the intelligence services and armed forces was in theory clear-cut. An intelligence officer's job was always to find things out, not to make things happen. Military personnel wear uniforms, and the laws of armed conflict govern their activities; when captured, they are meant to be taken prisoner. Spies and plainclothes saboteurs get shot.

In the online world, attributing motive is far harder. An intrusion into another country's sensitive computers and networks for the so-called innocent purpose of reconnaissance can easily be mistaken as an act of sabotage or at least preparation for it. The potential for misunderstanding intent pushes cyberespionage practitioners into unfamil-

iar political and legal territory. Human intelligence agencies have developed norms, which to some extent substitute for the lack of legal regulation in what can never be a law-governed space. For example, toward the end of the Cold War, both sides refrained from physical attacks on each other's intelligence officers or their families. There are, to date, no similar arrangements in cyberspace.

As political scrutiny intensifies, Western intelligence agencies are operating in an unfamiliar and increasingly hostile environment. Public concerns about privacy have mushroomed because of the intrusive and careless behavior of tech giants. Trust in governments has fallen. Spies—in most democratic countries—cannot take public acceptance of their activities for granted. They must also assume that public opinion will continue to shift against them.

Spies today increasingly need to work with lawyers, both to counter adversaries' reliance on lawfare—the use of the legal system to delegitimize an enemy or win a public relations victory—and to test the legality of their own operations. Even if national security exemptions apply to the details of sources, methods, and intelligence material provided to decision-makers, the legal environment is intrusive and constraining. A Western intelligence officer can no longer go on so-called fishing expeditions, trawling through emails and other private material in the hope of finding clues that will help steal secrets or catch spies. Instead, the breach of privacy has to be justified in advance and is also subject to retrospective review.

Privacy and human rights laws are placing more and more constraints on intelligence agencies' activities, especially as they seek to gain new powers, such as compelling tech companies to help break into encrypted devices and communications. A 2016 ruling by the European Court of Justice, for example, risked making illegal all the bulk data collection conducted by Britain's signals

intelligence agency, GCHQ, on behalf of the U.S. National Security Agency. Intelligence agencies in the United States, Britain, and other Western countries now employ lawyers and public affairs specialists to monitor data protection and other laws.

Intelligence officials must also reckon with the fact that sanctioned illegality today may get them into trouble tomorrow. Extraordinary rendition of suspected terrorists, for example, has been the subject of intense legislative scrutiny in the United States. In 2012, Abdelhakim Belhaj, a Libyan émigré opposition figure, sued the British government for his kidnapping in Thailand in 2004 and forcible return to Libya, where he and his pregnant wife were tortured. In 2018, the British authorities paid the family compensation and apologized.

Such legal worries would have been unheard of during the Cold War, when no explicit legal framework governed spy activities. Now, due to freedom of information legislation in many countries, intelligence officers must reckon with the possibility that in 30 years' time—when documents are declassified—they may be held accountable for decisions that seem entirely justifiable today but will be highly questionable by the standards of the future.

Indeed, what may seem trivial today will be shocking tomorrow because it clashes with accepted social norms. Take, for example, the use of dead babies' birth certificates—a common way of creating a cover identity, first made public by Frederick Forsyth in his thriller *The Day of the Jackal*. When, between 2011 and 2013, it emerged that British undercover police officers were using this technique in order to infiltrate radical political groups, the public erupted in outrage, leading to a series of high-profile government inquiries and expensive legal settlements.

The technique in question had involved a secretive unit called the Special Demonstration Squad, which

trawled birth and death records to find details of children who had died in infancy, secured their birth certificates, and then obtained driving licenses and other documents so that they could masquerade as protesters and sympathizers, gaining the trust of the groups—sometimes by having intimate relationships with members for years. But such tactics were only useful when dealing with targets with no serious counterintelligence capabilities. The danger of finding a death certificate matching the supposedly “live” individual has increased as a result of digitized public records. Instead, intelligence agencies today do something even more offensive to modern social mores: They look for people who

INTELLIGENCE OFFICIALS MUST ALSO RECKON WITH THE FACT THAT SANCTIONED ILLEGALITY TODAY MAY GET THEM INTO TROUBLE TOMORROW.

are never going to apply for passports or create any digital traces of their own.

A favorite category is people born with profound disabilities, who spend their lives in the care of others. A disabled man who has no bank account or mobile phone and requires round-the-clock care for his most basic and intimate physical needs is going to be invisible to the outside world. But he has a birth certificate, which can be used to build an identity for someone else's undercover life. This practice raises profound ethical questions in an era when most people feel that those with disabilities have inalienable human rights. What may have been acceptable 20 years ago may seem outrageous and career-killing in 20 years' time.

THE BOOMING WORLD of private intelligence companies is watching these techniques and their practitioners with a greedy eye. Indeed, the intelligence profession is increasingly overlapping with the corporate world. The world of spies used to be cloistered. People who joined it never spoke about it and often served until retirement. Penalties for disclosure could include the loss of a pension or even prosecution.

That has changed. A stint at the CIA or MI6 has become a paragraph on a resume, not a career. Britain and the United States have caught up with Israel, where the private sector has long prized a spell in a senior position in intelligence or defense. In London and Washington, such work is increasingly a launchpad for an interesting career in

corporate intelligence or other advisory work.

Government intelligence agencies have stopped battling the commercialization of espionage; instead, they embrace it—a practice exemplified by the Israeli company NSO Group, which, according to a *New York Times* investigation in March, is one of several firms that broker the sale of former government hackers' expertise to countries such as Saudi Arabia. Security clearances in the United States and United Kingdom used to lapse on retirement. Now, retired intelligence officers are, in many countries, encouraged to maintain them. Retirees may be hired as contractors, or they can make job offers to people still inside the service.

ANYONE RESPONSIBLE FOR A COMPANY'S CYBERSECURITY NOW HAS TO THINK LIKE A COUNTERINTELLIGENCE OFFICER.

And when the tricks of the trade—bugging, impersonation, hacking—are illegal, they can simply be outsourced to a suitably unscrupulous subcontractor. The food chain in the private spy world is highly respectable at the top, with former spymasters offering exquisitely priced and presented inside information about the way the world works.

Further down the ladder, things are different; if you want to find out where your rival's corporate jet has been flying, someone with access to the air traffic control database will provide the answer in exchange for a fat envelope. The theft of electronic data is effectively untraceable: There is no need to download the data; you can just photograph the computer screen with a mobile phone. Or the data can be obtained by impersonation—infiltrating the target organization undercover as a temporary secretary, security guard, or cleaner.

Meanwhile, public tolerance is waning as knowledge, tradecraft, and contacts gained at taxpayer expense are used for self-enrichment in retirement. The conflicts of interest and other pitfalls are obvious. Many of the techniques used by government spy agencies are intrinsically illegal (including bribery, burglary, bullying, and blackmail). Such lawbreaking raises the question of what happens if a client hires a private company that is also the target of a government investigation. Must the private company sacrifice its profits? Who makes it do so?

As the cost of conducting espionage operations—in money, time, and effort—has shrunk, spying has become

less esoteric. These days it is an integral part of business, finance, sports, and family litigation over divorce and child custody. Indeed, modern life encourages people and institutions of all kinds to adopt the thinking and practices of the spy world. Are you worried about your date? Then you will find open-source information establishing whether he or she has a criminal record, bad credit, unfortunate habits involving drug use, or unusual sexual preferences. The same goes for prospective hires.

Anyone responsible for a company's cybersecurity now has to think like a counterintelligence officer. To protect a firm's sensitive information, he or she must identify the most gullible and careless members of the organization and fire them or give them better training. The long-standing practice of opposition research became an everyday phrase during the U.S. presidential election in 2016. Republicans determined to undermine Donald Trump hired a firm founded by Christopher Steele, a former top MI6 Russia hand, to dig for dirt. When Trump won the Republican nomination, the research project continued—but with the firm allegedly being paid by Democratic candidate Hillary Clinton's campaign. Steele's research involved contacts with the FBI, which some critics say crossed the public-private and serving-retirement boundaries.

The rise of commercially available spying technology has led to some savings for governments in money, risk, and time. Investigative outfits such as Bellingcat, using open-source information, commercial databases, and material hacked or leaked by sympathetic allies, have produced startling scoops and exposes, including identifying the three would-be assassins of Sergei Skripal, a former Russian military intelligence officer who had retired to the quiet English town of Salisbury.

Competition raises standards, in

spycraft as in other fields. Intelligence agencies need to work with other actors outside the spy world, both in order to find out what is going on and in order to influence it. Spies and intelligence chiefs need to be media-savvy, countering and mounting information operations. In the old days, spymasters told spies that any contact whatsoever with a journalist was a sackable offense.

That dividing line is now thin and full of holes. Intelligence officers find plenty to talk about with journalists. They can discuss the credibility of open sources and the difficulties of operating in hostile environments. Intelligence officers involved in “active measures”—making things happen rather than just finding out about them—can find it useful to brief journalists, either highlighting solid facts and logic that help their case or on occasion inventing or twisting source material in order to produce new coverage with the requisite slant or spin.

GIVEN THIS CHANGING LANDSCAPE, spies also need to be at home in the worlds of business and finance. Unraveling the webs of offshore companies that lie behind Iran’s evasion of sanctions, Russian oligarchs’ influence operations, or China’s exploitation of its ethnic diaspora has become a formidable task.

A few years ago, I coordinated the defense in a libel suit brought by a Russian tycoon against the *Economist*, for which I had worked as the Moscow bureau chief. An article by a colleague had implied that this man’s riches were due to his personal and political connections with Vladimir Putin. We were able to spend hundreds of thousands of dollars on a detailed, forensic investigation of a segment of the energy market that we believed our target was manipulating. After the case was over, a spy chief from another Western country told me that finding a few hundred thousand dollars in cash to bribe a North Korean would be no problem. Spend-

ing the same amount on statisticians and lawyers would be deemed unacceptable, however. Intelligence budgets are for spying, not finding things out through legitimate means.

That’s because spy agencies will not be able to maintain the levels of operational secrecy that they have come to regard as routine if they enlist the help of lawyers, journalists, accountants, business executives, and academics. If you hire a law firm, what happens if its computers are hacked or its staff suborned? The wider you spread the zone of secrecy, the more fragile it becomes.

Yet the biggest impediment to successful spying today is not leaks but excessive classification. The security clearance industry, particularly in the United States, operates with agonizing slowness, hampering the recruitment of useful people (such as the multilingual children of immigrants) and letting through liabilities (such as Edward Snowden).

Information in most countries is also ludicrously overclassified, at too high a level and for too long a period of time. Overclassification and excessive secrecy do not protect countries from their adversaries. Such methods only protect bureaucrats from scrutiny. Intelligence agencies use the supposed need to protect sensitive sources and methods to justify their concealment of blunders or activities that deserve public scrutiny. This excessive secrecy makes spy services timid, introverted, risk-averse, and calcified by procedure. Taxpayers end up paying ever greater bills for ever less impressive results. Meanwhile, the enemies of Western democracies, untroubled by such procedures, steal secrets and meddle in U.S. and European politics with abandon.

In the coming years, the bigger danger could be the opposite one: The intelligence services of democratic countries may become too flexible and too deeply involved in the institutions and procedures of a free society. The temptation to do so will be particularly strong in countries facing the full blast of hostile influence operations, such as Australia (which faces a Chinese threat) or Ukraine (which faces a Russian one). Intelligence-led criminal justice sanctions and regulatory sanctions—arrests, asset freezes, deportations, banning media outlets, and so forth—that should be the exception could become the rule.

Most of us don’t want to live in a country where the leadership spends all its time reading intelligence briefs, where the intelligence and security agencies are at the heart of public life and political decision-making. I once lived in a country like that: Putin’s Russia. Western democracies need the intelligence services to defend open societies against Putinism—but not at the price of self-Putinization. ■

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THE MANUFACTURER'S DILEMMA

To secure itself, the West needs to figure out where all its gadgets are coming from. Here's why that's so difficult.

BY ELISABETH BRAW
ILLUSTRATION BY EIKO OJALA



On the outside, the iPhone looks like the pinnacle of cool Californian tech. Open it up, however, and the device seems a lot less American. Its components might have been designed in the United States, but they're assembled in China, as are a dizzying range of other popular products: televisions, sneakers, even drones and defense equipment. That fact creates a glaring security threat—one that Western firms and governments are only now beginning to tackle.

Using Chinese suppliers seems to make good economic sense for Western firms. After all, Chinese labor remains very cheap: Such work accounts for just \$10 of the total cost of an iPhone today (top models of which go for more than \$1,000). That's why, according to a recent tally by the *Economist*, "of the production facilities operated by Apple's top 200 suppliers, 357 are in China," while just 63 are in the United States. (One of the reasons Steve Jobs originally hired Apple's now CEO, Tim Cook, was because he was expert in managing such supply chains.)

But clever financial arrangements don't always make for smart politics—or secure systems. Globalizing the supply chain may make business sense, but it has turned Western companies into vulnerable geopolitical targets. In 2017, Maersk, the world's largest shipping company, was hit by the NotPetya virus. The ransomware, developed by hackers working for Russian military intelligence and originally directed against Ukraine, rendered Maersk essentially nonoperational for two weeks. In ports around the world, including Elizabeth, New Jersey, trailers soon piled up, unable to deliver or receive cargo. Theorists call attacks like this "hybrid warfare," where irregular methods are mixed into conventional war-making to

target social and political weak points. In an age of these asymmetric threats, firms like Maersk are now on the front line. "[T]his problem was of a magnitude never seen before in global transport," a Maersk customer told *Wired*.

According to a high-level source, speaking confidentially, major consumer brands are trying, with some success, to curb their exposure to Chinese companies. Makers of lower-end products, however, remain dangerously exposed. If their suppliers or subcontractors tinkered with a product at any point along the supply chain, in most cases the customer would never find out. Defense contractors, which make products infinitely more complex than sneakers or even smartphones, face even trickier problems with their Chinese supply chains.

The culprit doesn't need to be a Chinese company or national, of course: It can be anyone wishing to harm the main manufacturer or its home country, or it can be a proxy operating on behalf of a rival company or country. Defenders of the current order argue that fear of the economic losses that would result if such subterfuge were revealed provides sufficient deterrence. But political pressures and national conflicts have overridden economic reasoning plenty of times in the past, and the hostile intel-

ligence agencies that might insert backdoors into components have no vested interest in global economics.

Tinkering with economic supply chains for intelligence- and other national security-related reasons is not a new idea; indeed, Western countries have long done just that. In the 1980s, the CIA, according to former Air Force Secretary Thomas Reed, inserted sabotaged software into a Soviet oil pipeline, causing it to explode. Five years ago, Edward Snowden revealed that the U.S. National Security Agency had inserted backdoor espionage tools into U.S.-made internet routers being exported to Syria. And in February, the *New York Times* reported that the United States was accelerating a George W. Bush-era practice of inserting faulty parts into Iran's aerospace supply chains, which appears to have caused some of the country's test rocket launches to fail. Such disruption and sabotage are unlikely to affect large parts of any product's supply chain, but the psychological and consumer damage caused by even a minor mishap can be immense. Just as parents are scared away from baby food by the report of a single piece of glass, so the damage done by sabotage could cause permanent distrust in a given product or manufacturer.

Hundreds of years ago, attacking a supply chain meant cutting off supplies to a besieged castle or sinking merchant ships. Today, governments can conduct these attacks covertly through proxies. Chinese companies have cornered the market for inexpensive high-tech parts and products. If these suppliers abruptly decided to stop servicing their Western clients, there would be little U.S. and European companies could do to respond. Sure, manufacturers would revert to alternative suppliers—yet in countries where empty shelves are unknown, the social shock alone would be highly destabilizing.

Thus far, Western fears—and attempts

by countries and companies to protect themselves—have largely focused on China, with claims of hardware backdoors and worries about the 5G giant Huawei. Yet every country involved in a company's supply chain poses a potential risk. While a government may have no malign intent, local terrorists or criminals often do. According to the British Standards Institution, the country's certification body, terrorists target supply chains at least once every seven days; the most frequent victims are Egypt, India, Thailand, and Colombia.

Today's supply chains are so complex that it's virtually impossible for Western companies to know exactly where everything they make comes from or is assembled. The World Intellectual Property Organization noted in its 2017 annual report that smartphones' different components all "have their own global supply chains. For example, a chip may be designed by a specialized U.S. company for a smartphone supplier; it is then manufactured in China and packaged in Malaysia." Although firms actively try to manage risk, "most companies simply have no way of knowing all the participants in their supply chain," said Michael Essig, a professor of supply management at Bundeswehr University in Munich.

"Let's assume that a global company like Volkswagen has around 5,000 direct suppliers and that each has around 250 subcontractors. That means that the company has 1.25 million second-tier suppliers. With each additional step, the supply chain grows exponentially," Essig calculated. So does the risk of attack. And that's just the hardware. Software supply chains can be just as murky. "Perhaps a software supplier has a subcontractor in China who delivers important lines of code," Essig said, and the end consumer

has no way of identifying which sections were compiled where. Jerker Hellström, the head of the Asia and Middle East program at the Swedish Defence Research Agency, warned that "companies can just stop sending software updates."

Identifying every risk may be impossible. After all, most foreign companies in the supply chain are benign actors that don't deserve to be held collectively responsible. And diversifying away from every possible risk would result in crippling costs. So firms and governments should focus on improving resilience, not just mitigating risk. Disruptions, backdoors, and sabotage might be inevitable; how companies cope with them will make a critical difference.

For businesses, that means taking a lesson from militaries, which regularly prepare for different threats—and for unpredictable scenarios. Armies don't sit on their hands after war-gaming one possibility; they reimagine and retrain constantly. In a similar fashion,

ing expertise has been lost in the West, especially in high-tech manufacturing. That's even more reason to start looking for such companies before the problem hits. Western conglomerates—and even ministries of defense—may want to consider supporting the creation of critical businesses on their shores. Using local suppliers is always more expensive than relying on labor from lower-wage countries, but supply chain disruptions can prove even more expensive.

Governments should also provide incentives for firms to act. If a major tech, logistics, or defense company's operations are disrupted, it's far from the only victim. NotPetya, the virus that hit Maersk, also infected Mondelez, the snack food giant that, among other things, makes Oreo cookies. Maersk's misfortune, meanwhile, left its customers without daily supplies including grains and steel.

Given the thoroughly globalized nature of today's economy, companies

DISRUPTIONS, BACKDOORS, AND SABOTAGE MIGHT BE INEVITABLE; HOW COMPANIES COPE WITH THEM WILL MAKE A CRITICAL DIFFERENCE.

today's global companies should regularly practice reconfiguring their supply chains in case of emergency. They can also identify which components are most critical and ensure they have a second, safer supplier—ideally one close to home—lined up in case their first is compromised.

The trouble is that after years of outsourcing, there aren't many Western companies with the ability to act as a second source. Crucial manufactur-

can't protect themselves from every disruption. Trying to create an iron dome around any Western country's economy in the name of national security would be foolish. But assuming that supply chains will survive hybrid warfare unscathed is an even greater folly. ■

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The Oldest Game

The very long past of industrial espionage.

BY MARA HVISTENDAHL
GRAPHIC BY VALERIO PELLEGRINI

INDUSTRIAL ESPIONAGE is as ancient as industry itself—and a frequent accomplice to the rise of empires. From classical Greek cities to modern U.S. corporations, the theft of trade secrets has marked a transfer of power almost as routinely as bloodshed. The methods have switched from old-fashioned spying to online hacks, but the motivation remains the same: winning.

In the 18th century, a rising United States was the main culprit. Alexander Hamilton stressed the need to steal European technical knowledge, while Benjamin Franklin openly encouraged British artisans to immigrate to America—and, implicitly, to bring British machinery with them. “[M]ost of the political and intellectual elite of the revolutionary and early national generation were directly or indirectly involved in technology piracy,” writes the Fordham University historian Doron Ben-Atar in his book *Trade Secrets*. Today, however, the United States is the one defending its position against other perpetrators—most notably China.

Here’s a look at some key cases of industrial espionage throughout history. ■

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500 B.C.

In the ancient Mediterranean city of **Sybaris**, chefs presiding over luxurious feasts complain of rivals stealing their recipes. City leaders grant cooks exclusive ownership of their recipes for one year, creating the oldest known recognition of intellectual property rights.

A.D. 550

According to the Byzantine historian Procopius, Emperor Justinian sends Nestorian Christian monks to **China** to bring back the secret of silk. They return to **Byzantium** with silkworm eggs concealed in their staves, which later hatch, breaking the Chinese monopoly.

1848

The **Scottish** botanist Robert Fortune journeys to the tea-processing mountain towns of **China's** Fujian province, his hair styled to pass as a local. His observations allow the British East India Company to found vast tea plantations throughout South Asia.

1810

The **New Englander** Francis Cabot Lowell sets sail for **Britain**, where he tours textile factories in Glasgow and Manchester, examining the revolutionary power loom. Taking machine plans out of the country is illegal, but Lowell uses his powerful memory to recreate the designs he saw on returning home.

1926

Representatives of the **Soviet** Amtorg Trading Corp. secure visits to Ford Motor Co. plants in the **United States** as part of a trade deal. While there, they swipe blueprints and parts for the revolutionary Fordson tractor.

1989

The **West German** agent Karl Heinrich Stohlze travels to **Boston** to seduce a mid-level manager at a biotechnology firm. She pilfers proprietary documents about biotech research for him to photocopy and reportedly pass on to the German electronics company Siemens, before being caught and attempting suicide. Stohlze escapes back to Germany.

2019

Concerns about the role of firms such as Huawei in building 5G networks leads to a U.S. boycott but also pushback from the **European Union**. Control of the new telecom infrastructure would give China surveillance capabilities and the potential to directly manipulate internet-connected devices.

2015

After the **United States** levels numerous accusations against **China** for stealing secrets from U.S. companies including Boeing and Coca-Cola, the two countries agree on a cease-fire on cyberattacks directed at commercial businesses. It does not hold.

1712

The **French** Jesuit priest François Xavier d'Entrecolles travels to **China's** imperial kilns in Jingdezhen, Jiangxi province, to steal the secret of hard-paste porcelain. He sends back lengthy letters detailing his findings, influencing the work of some of Europe's most renowned potters.



1790

The **English** immigrant Samuel Slater establishes **America's** first water-powered textile mill by replicating techniques from his home country. Such copying was illegal under British law, which included the death penalty for passing on trade secrets. The English dub him "Slater the Traitor."



2004

A cybersecurity analyst at the **Canadian** telecommunications company Nortel discovers that hackers in Shanghai, whom he suspects of working for the **Chinese** firm Huawei, have penetrated Nortel's computer network. The company goes bankrupt in 2009.



1995

As **U.S.** President Bill Clinton's administration considers sanctions on **Japanese** luxury car imports, National Security Agency and CIA officers eavesdrop on conversations involving Toyota and Nissan executives using cutting-edge surveillance technology. They pass on the intelligence to U.S. trade negotiators.



1990

The FBI confirms that **French** intelligence targeted **U.S.** electronics companies including IBM and Texas Instruments between 1987 and 1989 in an attempt to bolster the failing Compagnie des Machines Bull, a state-owned French computer firm. The efforts mixed electronic surveillance with attempted recruitment of disgruntled personnel.



THE SPIES WHO CAME IN FROM THE CONTINENT

How Brexit could spell the end of
Britain's famed advantage in intelligence.

BY CALDER WALTON
ILLUSTRATION BY EIKO OJALA



From John le Carré's novels to the insatiable popular interest in James Bond, Britain has long enjoyed, and cultivated, an image of producing superior spies. This reputation is based on more than myth. For decades during and following World War II, the painstaking real-world work of British intelligence officers was one of the United Kingdom's primary sources of power.

That power, and its underlying foundations, is now in jeopardy thanks to Brexit, which will have a cascading series of repercussions for British intelligence: It will shut Britain out of European Union institutions that have benefited British national security, and it may also jeopardize the special intelligence relationship with the United States, which may look to deepen relations with Brussels instead. But while Brexit may now be inevitable, there are still ways for the U.K. to avoid this outcome.

Britain's intelligence services—MI5, which handles domestic security intelligence; MI6, which does foreign intelligence; and GCHQ, which focuses on signals intelligence (SIGINT)—have been touted at home and abroad as the Rolls-Royces of intelligence services. But they weren't always. Declassified records show that, prior to World War II, British spy agencies were often more like rickety cars than luxury vehicles. MI5 and MI6 were established in 1909, and at the outbreak of World War I in 1914, both services had scant resources: MI5's staff totaled 17, which included its office caretaker. The situation had scarcely improved by the start of World War II in 1939. A declassified in-house MI5 history shows that on the eve of the war, the agency's counterespionage section had just two officers—with responsibilities for the entire British Empire and Commonwealth. MI5 and MI6 did not even know the name of the German military

intelligence service, the Abwehr.

Of course, British intelligence went on to notch up unprecedented successes against the Axis. These victories largely owed to achievements at Bletchley Park, where British and Allied code-breakers cracked Germany's notorious Enigma cipher machine, giving them greater intelligence about the Third Reich than almost any state has enjoyed about another government in history. (Some historians have suggested that British SIGINT collected at Bletchley Park may have shortened World War II by two years.)

That success carried over into the postwar period, when Britain's intelligence services helped London punch far above its weight—even as its hard power declined. In part, this was due to the British government's successful management of international perceptions of its abilities. Whitehall cultivated an image of preeminent intelligence acumen by selectively releasing secrets about Bletchley Park and other astonishing wartime successes, such as MI5's "double-cross system," through which it managed to capture German spies in Britain and

turn many of them into double agents. As Sir J.C. Masterman, the head of the double-cross system, succinctly put it: British intelligence "actively ran and controlled the German espionage system in this country."

During the Cold War, British spooks managed to further burnish their reputation. GCHQ's technical capabilities were first-rate, and Britain's overseas territories proved useful for collecting SIGINT for the U.K. and the United States. Britain also pulled off some spectacular espionage and counterintelligence coups. During the Cuban missile crisis in October 1962, when the world came closer to nuclear Armageddon than at any other point in history, information provided by Oleg Penkovsky—who was positioned deep inside Russian military intelligence and worked for both MI6 and the CIA—gave Washington crucial insights into the status of



From left: Code-breakers at Bletchley Park in 1942, the MI6 agent Oleg Penkovsky and his tools of the trade in 1963, and Oleg Gordievsky, KGB officer-turned-British spy, seen in disguise in 1990.

WHAT IS AVAXHOME?

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Soviet missiles in Cuba. Penkovsky's intelligence, codenamed "IRONBARK," revealed, among other matters, how far Soviet missiles were from being operational and thus how much time Washington could spend diplomatically fencing with Moscow. Some years later, MI6 managed to recruit a senior KGB officer, Oleg Gordievsky, who became *resident* (head of station) in London and secretly provided Britain and the United States with unique insights into the Soviet Union's intentions and capabilities.

Such feats turned intelligence into a force multiplier for Britain during the Cold War, helping it retain a seat at the high table of international affairs despite its declining economic and military power. GCHQ worked so closely with the U.S. National Security Agency (NSA) that they essentially functioned as two sides of the same massive, trans-Atlantic,

SIGINT collection machine. This inter-agency relationship gave London political leverage in Washington. Records at the Richard Nixon Presidential Library, for example, show instances of British intelligence officials being given access to Washington's most senior policymakers, including Henry Kissinger, and even attending and briefing National Security Council meetings, in ways unimaginable for officials of any other countries.

Files declassified nearly 20 years ago show that in the 1960s, Britain's highest intelligence assessment body, the Joint Intelligence Committee, advised successive prime ministers that joining Europe was essential to Britain's strategic future: Doing so was the only way the country could escape its economic doldrums and safeguard its special relationship with Washington, which viewed the U.K. as more valuable within Europe than without. Accord-

ing to records at the John F. Kennedy Presidential Library, the United States saw London as a like-minded, trusted ally, one that literally spoke the same language and that could exert influence over Europe's more troublesome members. After joining in 1973, Britain also gained a say in major European decisions—which proved useful for the United States in matters including military strategy and trade.

If the U.K. now leaves the EU, there are good reasons to suppose that Washington will come to view London as less strategically important. U.S. officials are likely to start asking whether the United States really needs Britain anymore or whether it would be better off strengthening its intelligence relations with the EU.

Supporters of Brexit correctly point out that after joining Europe, Britain's intelligence agencies have continued

working with EU members on a bilateral basis, not with the EU as a whole—so leaving the union shouldn't make any difference. But that optimistic view discounts the real impact Brexit will have on British national security. The U.K. has benefited from membership in EU bodies such as Europol and the Schengen Information System, which provide it with information on terrorism, human trafficking, and other serious crimes. The British police and MI5 used such data to track down the Russian officers who tried to assassinate a former Russian spy, Sergei Skripal, in Salisbury in 2018. If the U.K. leaves the EU, however, Britain would lose access to such information—one reason that prior to the 2016 Brexit referendum, former British intelligence heads publicly warned that quitting

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the union would damage the country's security. Since then, the messy exit process has only heightened their concerns because it's increasingly doubtful that Britain, amid the present diplomatic rancor, will be able to salvage comparative alternative arrangements with the EU.

Following Brexit, the intelligence services will have to adapt. One area offers the most promise: the cyber-realm. GCHQ is already a world leader in digital intelligence. Edward Snowden's unauthorized disclosures in 2013 showed how closely GCHQ works with the NSA, exploiting internet platforms to collect intelligence. Although its role was largely overlooked, GCHQ was apparently the first to identify and warn U.S. intelligence about a Russian hacking group, Fancy Bear, which broke into U.S. Democratic National Committee emails in 2016.

Britain would be wise to double down on its comparative advantage in digital technologies; indeed, it seems to already be doing so. GCHQ and Britain's new National Cyber Security Centre have been undertaking recruitment and training drives for cyber-expertise, as has MI6. The latter indicates that old-fashioned human espionage—MI6's territory—will be important even in the new digital realm: Recruiting well-placed agents inside foreign cybergroups will be a key way to unlock their secrets.

Britain's National Cyber Security Strategy for 2016-2021 publicly acknowledged for the first time that the country has offensive hacking capabilities. A likely future area of growth for British intelligence will be to enhance these capabilities and carry out cyberattacks on state and nonstate threats, like Israel and America's alleged Stuxnet virus attack, uncovered in 2010, targeting Iran's nuclear program. History shows

that Britain's spies are extraordinarily good at turning dismal disadvantages, as they had at the start of World War II, into staggering successes. Cyberwarfare offers that opportunity again—especially since it doesn't require conventional military power, which has been difficult for Britain to pay for in its prolonged era of austerity.

Another area of future growth for British intelligence will likely be covert action with a focus on defending against disinformation. A major challenge facing Western societies is the insidious growth of fake news promulgated online by authoritarian regimes such as China, Iran, North Korea, and Russia. Most countries still lack a strategy for dealing with such disinformation; Britain, however, has a useful model in its recent past. During the Cold War, the country's shadowy anti-Soviet propaganda department, the Information Research Department, provided fact-based, rapid, and lucid responses to KGB forgeries. It provides a template for dealing with disinformation today; Britain would

In recent decades, the extraordinary and wide-reaching political cooperation that EU membership necessarily entailed probably made British spying on Europe too risky—and vice versa. Once it departs the EU, however, Britain would be free of such constraints. Indeed, since Brexit talks began, rumors have suggested that British intelligence has been targeting EU negotiators. Whether or not that's true, it seems unlikely that following Brexit, both sides will descend into mutual feeding frenzies of espionage. Common external threats, especially Russia and China, and the chill of a new cold war, mean that British and EU agencies will have incentive to keep cooperating.

Brexit will force Britain's intelligence services to answer uncomfortable questions they have not had to confront since World War II: What can they offer that others cannot? That Brexit is taking place at the same time as the cyber-revolution, however, offers opportunities for Britain to maintain some semblance of its current global power. Investing

AN AREA OF FUTURE GROWTH FOR BRITISH INTELLIGENCE WILL LIKELY BE COVERT ACTION WITH A FOCUS ON DEFENDING AGAINST DISINFORMATION.

be wise to update the approach for the social media era.

Britain's intelligence services could also start spying on the EU. No one on the outside knows how much of this, if any, the U.K. already does; so far, the records, if they exist, have yet to be declassified. But Britain has a long history of spying on its allies: British code-breakers intercepted and read U.S. communications before America entered both World War I and II.

in digital intelligence offers London the best—and perhaps only—way out of the strategic intelligence quagmire Brexit has placed it in. ■

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THE TRUMP DOCTRINE



An insider explains
the president's
foreign policy.

BY MICHAEL ANTON

TWO YEARS INTO U.S. PRESIDENT DONALD TRUMP'S TENURE, there is still endemic confusion about what, exactly, his foreign policy is. Many critics blame this confusion on the president's purported inarticulateness. Whatever one thinks of his tweets, however, the fact is that he has also delivered a number of speeches that lay bare the roots, contours, and details of his approach to the world.

A simpler—and more accurate—explanation for the confusion is that Trump's foreign policy does not yet have a widely accepted name. Names can be useful in sorting and cataloguing ideas and in avoiding the unnecessary elaboration of things everyone already knows. But to dredge up an old philosophic argument: The name is not the thing. The underlying phenomenon is what matters; the name is just shorthand. Yet too often the U.S. foreign-policy establishment—current and former officials, international relations professors, think tankers, and columnists—uses names as a crutch. People treat names as sacrosanct categories and can't process things not yet named.

So the fact that Trump is not a neoconservative or a paleoconservative, neither a traditional realist nor a liberal internationalist, has caused endless confusion. The same goes for the fact that he has no inborn inclination to isolationism or interventionism, and he is not simply a dove or a hawk. His foreign policy doesn't easily fit into any of these categories, though it draws from all of them.

Yet Trump does have a consistent foreign policy: a Trump Doctrine. The administration calls it "principled realism," which isn't bad—although the term hasn't caught on. The problem is that the Trump Doctrine, like most presidential doctrines, cannot be summed up in two words. (To see for yourself, try describing the Monroe, Truman, or Reagan Doctrine with just a couple of words.) Yet Trump himself has explained it, on multiple occasions. In perhaps his most overlooked, understudied speech—delivered at the APEC CEO Summit in Da Nang, Vietnam, in November 2017—he encapsulated his approach to foreign policy with a quote from *The Wizard of Oz*: "There's no place like home." Two months earlier, speaking to the U.N. General Assembly, he made the same point by referring to a "great reawakening of nations."

In both cases, the president was not simply noting what was going on: a resurgence of patriotic or nationalist sentiment in nearly every corner of the world but especially in parts of Europe and the United States. He was also forthrightly saying that this trend was positive. He was encouraging countries already on this path to continue down it and exhorting others not yet there to pursue it.

The other, more familiar phrase for the president's foreign policy—"America First"—is much maligned, mostly for historical reasons. But the phrase itself is almost tautologically unobjectionable. After all, what else is the purpose of any country's foreign policy except to put its own interests, the interests of its citizens, first?



FEW COUNTRIES EVER ACT EXCLUSIVELY OUT OF SELF-INTEREST. Indeed, states sometimes do things that run counter to their immediate interests.

For instance, it's rarely in a country's direct interest, narrowly construed, to accept refugees. Yet many countries do so because their leaders have concluded that welcoming the dispossessed serves some higher good.

That said, one never sees nations sacrificing themselves for other nations, the way individuals sometimes do—by fighting for their country, for example. In this sense, Thomas Hobbes is instructive: All countries live in the state of nature vis-à-vis one another. Not only is there no superseding authority, no world government, above the nation-state to enforce transnational morality; there is also no higher law for nations than the law of nature and no higher object than self-preservation and perpetuation.

For all its bluntness and simplicity, America First is, at its root, just a restatement of this truth. Countries putting their own interests first is the way of the world, an inexpugnable part of human nature. Like other aspects of human nature, it can be sublimated or driven underground for a time—but only for a time. You may drive out nature with a pitchfork, Horace said, but it keeps on coming back.

The practical effect of suppressing nature, moreover, is likely to have damaging long-term effects. At a minimum, it will produce a backlash, as we're already seeing in the United States, the United Kingdom, and elsewhere in Europe. Another, underappreciated danger is that, in declining to act in their interests, Western and democratic countries create opportunities for unfriendly powers, unashamed to act in *their* interests, to exploit what they see as Western naiveté. This observation forms the core of what one might call the negative formulation of Trump's foreign policy. The president himself has an inelegant, but not inaccurate, way of putting it: "Don't be a chump."

There is also a more positive formulation of the president's approach, which begins with an observation about human

nature and attempts to make a virtue of necessity. It can be stated like this: Let's all put our own countries first, and be candid about it, and recognize that it's nothing to be ashamed of. Putting our interests first will make us all safer and more prosperous.

If there is a Trump Doctrine, that's it. Perhaps the key point—at a time when

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many view self-interest (at least when practiced by democracies) as evil and see international self-abnegation as the height of justice—is Trump's recognition that there's nothing wrong with looking out for No. 1.

This notion is very hard for some to accept. And to be clear, by "some" I mean the foreign-policy establishment, the academic and intellectual elite, and the opinion-making classes—in short, the traditional readers of FOREIGN POLICY.



IN HIS WONDERFUL 2018 BOOK, *The Virtue of Nationalism*, the Israeli political philosopher Yoram Hazony sums up elite conventional wisdom on the subject with the assertion that "nationalism caused two world wars and the Holocaust." That belief is the deepest root of opposition to Trump's foreign policy and to European populism: When certain people hear Trump talk, they think they're hearing jackboots marching.

When many Western thinkers look at the international order these days, they boil things down to a dichotomy between democracy (good) and authoritarianism (bad). Hazony agrees that the basis for world order does rest on a dichotomy, but he offers two very different root principles: empire versus something like nationalism.

Hazony's is far more useful and persuasive than the other approach. To see why, consider, first, that the dichotomy between democracies and authoritarian regimes focuses on regime types—that is, domestic or internal arrangements. Hazony's alternatives, on the other hand, look directly

at international concerns. This is not to say that regime type is unimportant in international affairs. But it is not definitive. Countries as well as empires can be democratic or despotic.

Before taking this point any further, it's necessary to make an even more elementary point. As thinkers since the ancient Greeks have recognized, all political entities—from the smallest village to the largest empire—are based on a distinction between

insiders and outsiders, between those who belong and those who do not, between citizens or subjects and foreigners. The important distinction, then, is not between universalism and particularity—the state will always be particular. The key question is how far the latter can safely or wisely be taken in the direction of the former.

In *Politics*, Aristotle makes a point similar to Hazony when he writes that the three fundamental political units are the tribe, the *polis* (or "city-state"), and the empire. "Tribe" here is a loose rendering of the Greek *ethne*, the root of the English word "ethnic," which is often also translated as "nation" in the sense of "distinct people."

The *ethne* and the *polis* are not merely (more or less) homogenous; the whole point of their existence, their key organizing principle—whether they are democratic or autocratic—is precisely this homogeneity. Empires, on the other hand, are by definition multiethnic.

Now, the ancient Greeks knew that it was hard to find in nature any precise boundary where one *ethne* ended and another began. What distinguished a Spartan from an Athenian, apart from their very different regimes? What made them ethnically different? After all, they both looked similar, both spoke Greek, both followed similar customs, and both worshiped the same gods (in particular Athena, whom both looked to as their patron). On occasion, the two city-states could even unite against a common threat. Yet they could also just as easily charge at one another's throats.

Clearly, they were both Greek, but that didn't necessarily make them the same people. Indeed, despite the blurriness of these lines, it was important to the Athenians and the Spartans—as it has been to all human beings in all times and places—to sort themselves into distinct tribes and nations. Doing so is an integral part of human nature. Sometimes natural or naturalistic factors help drive this process: Peoples

living on opposite sides of some formidable geographic barrier, for instance, tend to think of themselves as distinct from one another. Other dividing factors, such as language and customs, are conventional or man-made (if not self-consciously so). But all these different factors, whether physical, geographic, or conventional in origin, are natural in the sense that they direct and inform a tendency that is inherent in human nature.

Another way to explain this tendency is by referring to the classical concept of “love of one’s own.” As we all know, our own may—or may not—be intrinsically loveable. Yet how many of us would want to look around our Thanksgiving table and see none of our relatives? Maybe a few of us. But even if we could replace them all—especially that loudmouthed, “Make America Great Again”-hat-wearing uncle—with people who were better educated, better dressed, better looking, and better conversationalists, the vast majority of us would still say no. We’d miss that uncle after all.

Love of one’s own extends beyond the family to the clan, to the tribe, and to the nation. Human beings have always organized themselves around some concept of civic friendship that takes the bonds of family and extends them outward—but not indefinitely. On a fundamental level, politics is about banding together to do together what can’t be done (or done well) alone.

So there will always be nations, and trying to suppress nationalist sentiment is like trying to suppress nature: It’s very hard, and dangerous, to do.



THAT'S THE PROBLEM WITH IMPERIALISM: It requires the crushing of natural nationalist feelings through violence. Which is why the wisest thinkers of the past, from Plato and Aristotle to Niccolò Machiavelli and Montesquieu, were all anti-imperialist (even if the latter two aren’t always recognized as such).

Let’s start with the Greeks, with Xenophon’s *Cyropaedia*, his highly didactic and not very accurate biography of Cyrus the Great. Xenophon depicts in great detail how, in transforming the small homogenous city-state of Persia into a vast multiethnic empire, Cyrus created a polity that was far larger, mightier, richer, and more technologically advanced than its forerunner. But Xenophon also takes pain to emphasize the costs of this project, which included a decline in good government, the loss of liberty for Persia’s citizens, and an erasure of the individual characters of the empire’s formerly independent but now subservient nations. Since the free spirit of captured nations never entirely dies, their peo-

ples always remain potential threats, so Cyrus had to maintain a massive internal spying and security apparatus, which further curtailed liberty. And if all that weren’t bad enough, on Cyrus’s death the whole system collapsed—illustrating imperialism’s inherent instability.

As for Machiavelli, his *Discourses*—generally considered one of the most

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explicitly pro-imperialist books ever written—shows how, like Persia, the rise of the Roman Empire resulted in the loss of liberty and republicanism, this time for 1,500 years. It also led to the subordination of free thought to stultifying authority and the degradation of humans into a kind of slave.

Montesquieu’s *Considerations on the Causes of the Grandeur of the Romans and Their Decadence* also deals with Rome, in this case by tracing its birth, rise, maturity, decline, and death. Montesquieu’s conclusions are more or less the same as Machiavelli’s, but he also has a contemporary point to make: that, having been accomplished once, the dismal project of empire building should never be repeated. His message was targeted, quietly but directly, against the European monarchs of his time, especially France’s House of Bourbon, only recently thwarted in its attempt to erase the Pyrenees and expand French dominion into Germany, northern Italy, and the Low Countries.

What does any of this have to do with our current situation? The answer is, everything: for while traditional empires may have gone out of fashion, global-

ization has taken its place as the imperialism of our time. Globalization represents an attempt to do through peaceful means—the creation of transnational institutions, the erosion of borders, and the homogenization of intellectual, cultural, and economic products—what the Romans (and Cyrus and others) achieved through arms.

No surprise, then, that globalization and imperialism suffer from the same flaws. Like the latter, the former is also hubristic and prone to overreach. It also erodes and even subverts and attacks liberty. It requires centralization.

Globalization also has the same stifling impact on ideas, and for the same reasons, that Machiavelli diagnosed as a problem with imperialism 500 years ago. Globalization reduces differences in thought in any number of ways: through media consolidation, for example, or through the homogenization of the elite—who these days all seem to come from the same background, attend the same schools, and go to the same conferences. The champions of globalization also aren't above stooping to outright censorship and coercion

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when threatened. Indeed, this impulse is perhaps the most important root of political correctness.

Defenders of globalization will respond that whereas imperialism—globalization by conquest—amounts to theft and enslavement and is inherently violent, today's globalization is voluntary.

But is it really? It certainly doesn't feel

that way to the people all over the world who have seen their culture, traditions, communities, and economies disappear before their eyes. And this transformation has been voluntary only in the sense that it has been undertaken with the full approval of the elite. As for the common folk, not so much.

The European Union provides the most illustrative example. Every member state consented to join through some formal mechanism—typically, a legislative vote or a referendum. But further consolidation was often highly contested, with parliamentary votes or referendums frequently coming very close—as in France's "*petit oui*" to the Maastricht Treaty creating the EU in 1992—or else rejected—as in the case of Denmark that same year, when the government then resubmitted the question to the electorate after making cosmetic changes to ensure its wanted result. This doesn't end up sounding like consent in the meaningful sense of the word.

The EU, moreover, was a fraud from the beginning, even before a single referendum was held. It was sold to the European public on false pretenses: It was supposed to make travel easier and lower trade barriers and the other costs of doing business across borders while allowing states to maintain their sovereignty and citizens their individuality. But if anyone had forthrightly told European voters that "Brussels is going to henceforth regulate the size and shape of your vegetables and dictate your immigration and border policies," most would have instantly replied, "No, thanks."

As we've already established, nationalism and national sovereignty are intrinsic to human nature. So it should come as no surprise that the EU's attempt to tamp it down provoked a populist revolt, embodied by the rise of the yellow vest movement in France, Italian Interior Minister Matteo Salvini, Poland's Law and Justice party, the Brexit process, and Hungarian Prime Minister Viktor Orban.



THIS BRINGS US BACK to Trump, since the first pillar of his foreign policy is a simple recognition of this overlooked reality: that populism is a result of all this enforced leveling and homoge-

nization. The backlash was brewing long before Trump became a presidential candidate and would have found a champion with or without him. But he saw it first and seized on it by telling the discontented that he heard them, that their grievances were valid, and that he would speak on their behalf.

Since taking office, the president has recoupled U.S. foreign policy to domestic politics, a bond that had become increasingly frayed in recent decades. Since the end of the Cold War, most U.S. foreign policies—apart from the patriotic surge in support for an aggressive response to the 9/11 attacks—have rarely commanded anything like majority

support but instead have been tailored to meet only elite concerns. Try explaining to average Americans the need for NATO expansion, democracy promotion in the Middle East, or endless trade concessions to modern-day mercantilists in Asia and Europe. On some level, U.S. leaders must know that the task is futile, because they hardly try. You're just supposed to know that it's in America's interests to remain in NATO—even if its member states shirk their responsibilities and the organization doesn't do very much, least of all in its own back yard.

This is not to disparage the phenomenon of elite leadership. Sometimes a country's leaders really are right about some far-reaching aspect of policy that's nonetheless hard to explain to the public. This is one reason why so many philosophers argue for an aristocratic or at least mixed regime, which allows the elite to pursue a foreign policy that the people lack the foresight and expertise to understand, let alone execute. In the U.S. example, the country's elites saw the need to wage the Cold War much earlier and more clearly than the public. But those elites never took public support for granted; on the contrary, they carefully cultivated it throughout the struggle.

Today's establishment, by contrast, takes the eternal benefits of continued globalization for granted. Unable to convince the public of these benefits, however, many U.S. leaders and pundits have resorted instead to clichés—for instance, appeals to “collective security” to describe an alliance that rarely acts collectively and that can't or won't secure its southern and eastern borders—that are more catechism than argument.

From this follows a subtler point that is no less integral to the Trump Doctrine: Times change, and policy must change with it. U.S. pundits and policymakers remain besotted with the post-World War II “Present at the Creation” era—perhaps because setting the table for victory in the Cold War was the last time they got something really big right across the board.

It's true that during the postwar era, Washington achieved many things of great benefit to the United States and other countries. But that was decades ago, and it doesn't offer a realistic way forward today. We can't just copy what Harry Truman, Dean Acheson, and George Kennan did. Nor can we go on trying to extend their efforts, as if they offer the solution to every contemporary problem.

Hence the second pillar of the Trump Doctrine is that liberal internationalism—despite its very real achievements in the postwar era—is now well past the point of diminishing returns. Globalism and transnationalism impose their highest costs on established powers (namely the United States) and award the greatest benefits to rising powers seeking to contest U.S. influence and leadership. Washington's failure to understand this truth has incurred immense costs: dumb wars to spread the liberal internationalist gospel to soil where it won't grow or at least hasn't yet; military campaigns that the United States

can't even end, much less win; the loss of prestige and influence; and closed factories and declining wages.

Trump is trying to correct course, not tear everything down, as his critics allege. He sees that the current path no longer works for the American people and hasn't for a while. So he insists that NATO pay its fair share and be

GLOBALIZATION REPRESENTS AN ATTEMPT TO DO THROUGH PEACEFUL MEANS WHAT THE ROMANS ACHIEVED THROUGH ARMS.

relevant and that allies actually behave like allies or risk losing that status. He's determined to end free rides, on security guarantees and trade deals alike, and to challenge the blatant hypocrisy of those, such as China, that join the liberal international order only to undermine it from within.



THE THIRD PILLAR OF THE TRUMP DOCTRINE is consistency—not for its own sake but for the sake of the U.S. national interest. Unlike several of the world's other leading powers—China, for example, but also Germany, which treats the EU as a front organization and the euro as a super-mark—Trump does not seek to practice “globalism for thee but not for me.” On the contrary, his foreign policy can be characterized as nationalism for all. Standing up for one's own, Trump insists, is the surest way to secure it.

For too long, U.S. foreign policy has aimed to do the opposite. Washington has encouraged its friends and allies to cede their sovereign decision-making authority, often to anti-American trans-

national bodies such as the EU and, increasingly, the World Trade Organization. This is another carryover from the Present at the Creation era. Back in the late 1940s, it made sense to push Europe—especially Germany and France—to reconcile, especially in the face of a common Soviet threat. But that push stopped paying dividends a long time ago. Yet Washington keeps pushing.

Look at how the U.S. foreign-policy establishment lambasts Poland and Hungary for standing up for themselves at the same time that it warns that Russia today has become as great a threat as it was during the Cold War. Supposing that claim is true (a dubious proposition), wouldn't it then make sense for the United States to encourage a strong Eastern Europe, with strong countries—including Poland and Hungary—to act as a bulwark against Russian revisionism? It's not clear how browbeating these countries to submit to Brussels accomplishes that aim.

Some Trump critics insist that “nationalism for all” is a bad principle because it encourages or excuses selfishness by U.S. adversaries. But those countries are going to act that way regardless. By declining to stand up for the United States, all Washington does is weaken itself and its friends at the expense of its adversaries, when it should be seeking to strengthen the power and independence of America and its allies instead.

Fortunately, Asia as yet has no supranational superbureaucracies on the scale of the EU. In Asia, therefore, the Trump administration has a freer rein to pursue its nationalist interests, precisely by working in concert with other countries pursuing theirs. To return briefly to Trump's Vietnam speech, his invocation of that nation's heroic past was not simple pandering. It served as a reminder that a strong Vietnam is the surest protection, for the Vietnamese and for the United States, against a revanchist China.



THIS IDEA POINTS TO THE FINAL PILLAR OF THE TRUMP DOCTRINE: that it is not in U.S. interests to homogenize the world. Doing so weakens states whose strength is needed to defend our common interests.

As the quote from Hazony above makes clear, we've all been indoctrinated in the alleged dangers of nationalism. But few people today dare ask about the dangers of a lack of nationalism. Yet those dangers are manifold: Nationalism saved France in 1914, and the lack of it doomed the country in 1940. It's unclear, moreover, how standing and fighting for one's own in a just cause is anything but noble.

Beyond all this, globalism makes the world less rich, less interesting, and more boring. In the lecture he wrote after receiving the 1970 Nobel Prize in literature, Aleksandr Solzhenitsyn argued:

In recent times, it has been fashionable to talk of the leveling of countries, of the disappearance of different races in the melting pot of contemporary civilization. I do not agree with this opinion. ... Nations are the wealth of mankind, its collective personalities; the very least of them wears its own special colors and bears within itself a special facet of divine intention.

These words, written almost 50 years ago, are more relevant today than ever. Solzhenitsyn was talking about another empire, which had subsumed many nations and was trying to brainwash them out of existence. These captive nations are now free, thanks in part to him, and many of them stand on the front lines, ready and eager to defend not just themselves but all nations and the very principle of the nation itself.

As the Solzhenitsyn quote makes clear, Trump's foreign policy is fundamentally a return to normalcy. What we had before couldn't go on. It is too generous to say it was going to end in disaster: It had already produced disaster. Getting back to some semblance of normal is necessary, good, and inevitable. Anything that can't go on forever won't. The only question is how it ends: with a hard crash or soft landing? For the establishment, Brexit and Trump and all the rest may feel like the former, but they're really the latter—a normal response by beleaguered peoples who have been pushed too far. Trump is simply putting U.S. foreign policy back on a path that accords with nature. Nature long ago snatched the pitchfork from our hands and has been using it to stab us in the behind ever since. Wouldn't you like to be able to sit down comfortably once again? ■

MICHAEL ANTON is a lecturer and research fellow at Hillsdale College. From February 2017 to April 2018, he served on the U.S. National Security Council as deputy assistant to the president for strategic communications. This article is derived from a lecture he delivered to the Program in Near Eastern Studies at Princeton University.



How to Win America's Next War

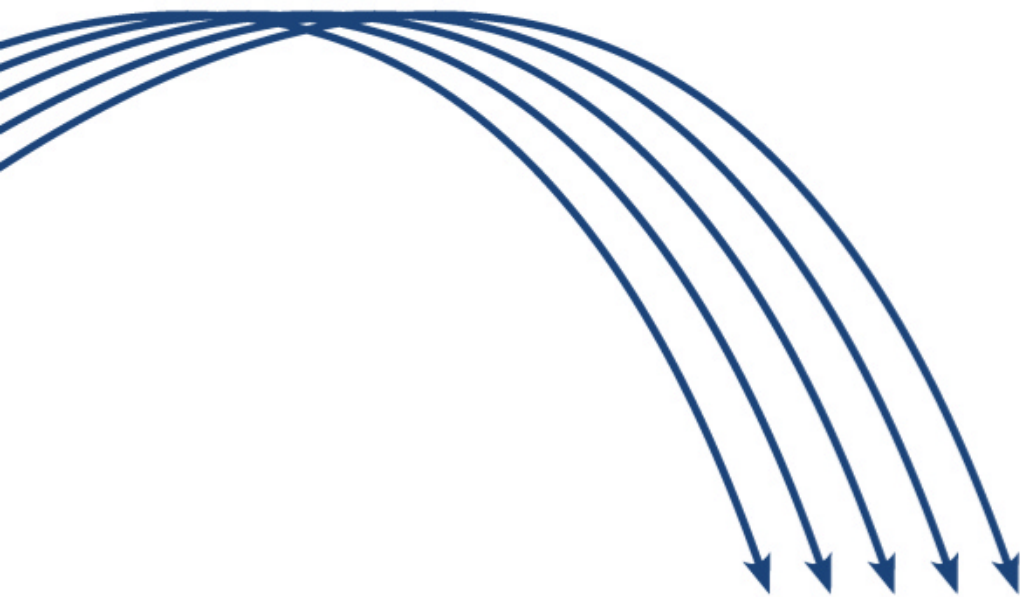
The United States
faces great-power
enemies. It needs
a military focused
on fighting them.

Story by **ELBRIDGE COLBY**

Illustration by **BRIAN STAUFFER**

Graphics by **VALERIO PELLEGRINI**





The era of untrammelled U.S. military superiority is over. If the United States delays implementing a new approach, it risks losing a war to China or Russia—or backing down in a crisis because it fears it would—with devastating consequences for America’s interests.

The U.S. Defense Department’s 2018 National Defense Strategy initiated a needed course correction to address this challenge. As then-Defense Secretary James Mattis put it in January that year, great-power competition—not terrorism—is now the Pentagon’s priority. But while the strategy’s summary provides a clear vision, it leaves much to be fleshed out. What should this shift toward great-power competition entail for the U.S. military?

To answer, we must first understand the current geopolitical landscape. As ever, the foremost concern of the United States is to maintain adequate levels of military power; without it, there would be nothing to protect Washington from the worst forms of coercion and every incentive for ambitious opponents to exploit the ensuing leverage. Largely for that reason, the United States has an enduring interest in open access to the world’s key regions—primarily Asia and Europe—to ensure their latent power is not turned against it. The United States does so by maintaining favorable balances of power in these regions through a network of alliances. These partnerships are not ends in themselves but rather the way the United States makes sure that no state dominates these critical areas.

Russia and especially China are the only countries that could plausibly take over and hold the territory of Washington’s allies and partners in the face of U.S. resistance.

If they did so—or even if they merely convinced their neighbors that they could and then used that fear to suborn them—they could unravel U.S. alliances and shift in their favor the balances of power in Europe and Asia. If China did so in the Western Pacific, it could dominate the world’s largest and most economically dynamic region. If Russia did so, it could fracture NATO and open Eastern Europe to Russian dominance.

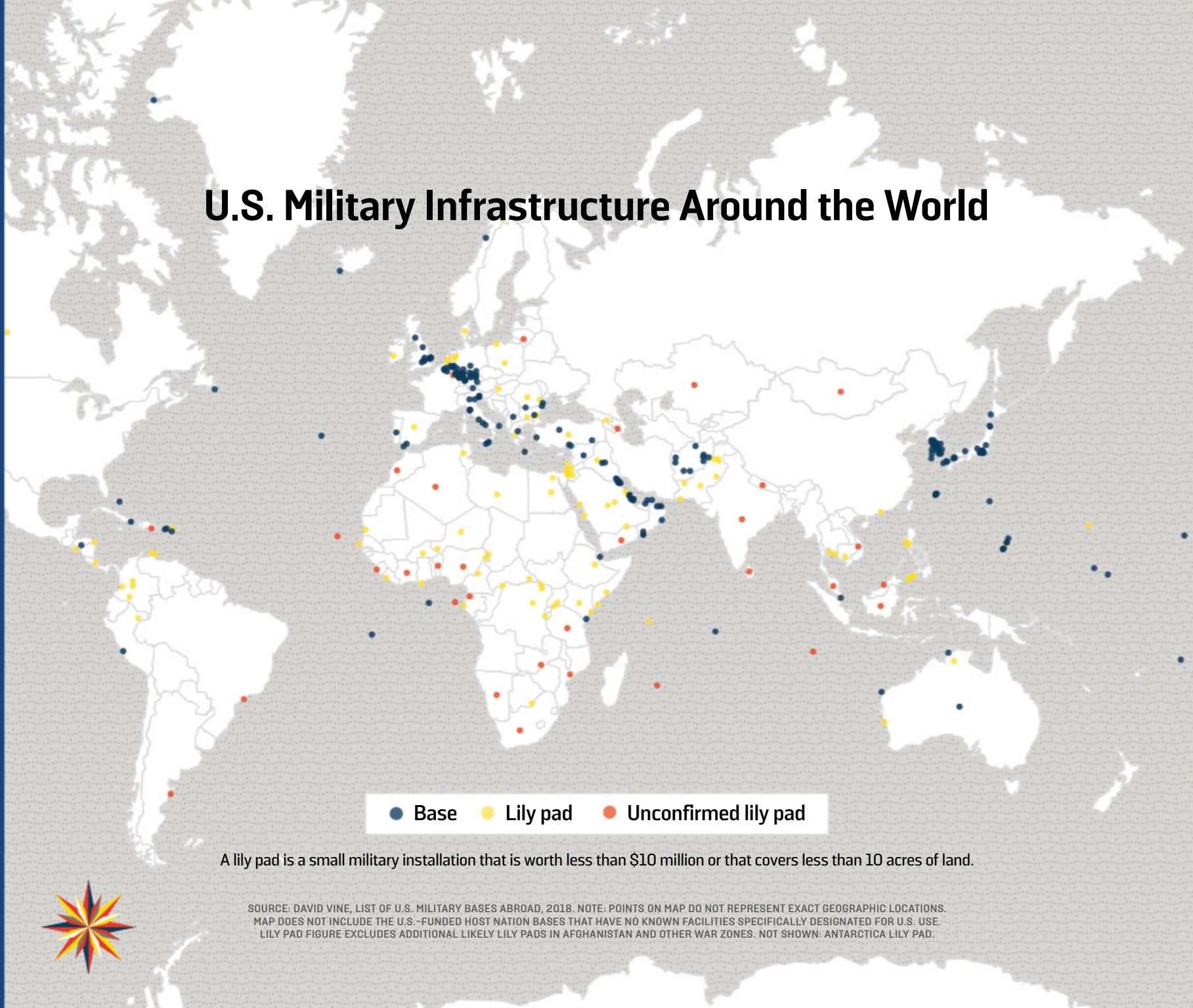
Beijing and Moscow must therefore not be given such an opening, which is why Washington must focus not on abstract metrics of its military superiority—such as how many carriers it puts to sea or how much it spends in comparison to other countries—but on its and its allies’ clear ability to defeat major aggression in specific, plausible scenarios against a vulnerable ally or established partner such as Taiwan.

In other words, the United States must prepare to fight and achieve its political aims in a war with a great power. Doing so will not be easy. The last time the United States prepared for such a conflict was in the 1980s, and the last time it fought one was in the 1940s. But that’s all the more reason why Washington must immediately start readying itself if it wants to deter another great-power battle now.

THE U.S. MILITARY WILL NEED TO UNDERGO dramatic change to prepare for possible attacks from China or Russia. For a generation, the Pentagon operated on what might be called the Desert Storm model, under which the United States exploited the enormous technical advantages it had developed starting in the 1970s to build a military capable of dominating any opponent in the 1990s and 2000s, a time when it lacked a peer competitor.

This approach was exemplified by the Persian Gulf War of 1990-1991. After Iraq seized Kuwait late in the summer of 1990, the United States first deployed forces to protect Saudi Arabia. Over the ensuing six months, Washington assem-

U.S. Military Infrastructure Around the World



bled a broad coalition and built an iron mountain of aircraft, tanks, warships, ammunition, and every other expression of military might. Once the United States was good and ready, it launched a withering air campaign that pummeled the Iraqi military and quickly established total dominance of Kuwaiti and Iraqi airspace. The subsequent ground invasion rapidly expelled the Iraqis from Kuwait, after which the United States quickly ended the war on its preferred terms.

The Gulf War operation was a stunning success—but the victory was owed in great part to the fact that the nature of the conflict was perfectly suited to the United States' advantages. Iraq had a formidable military, but it was well behind

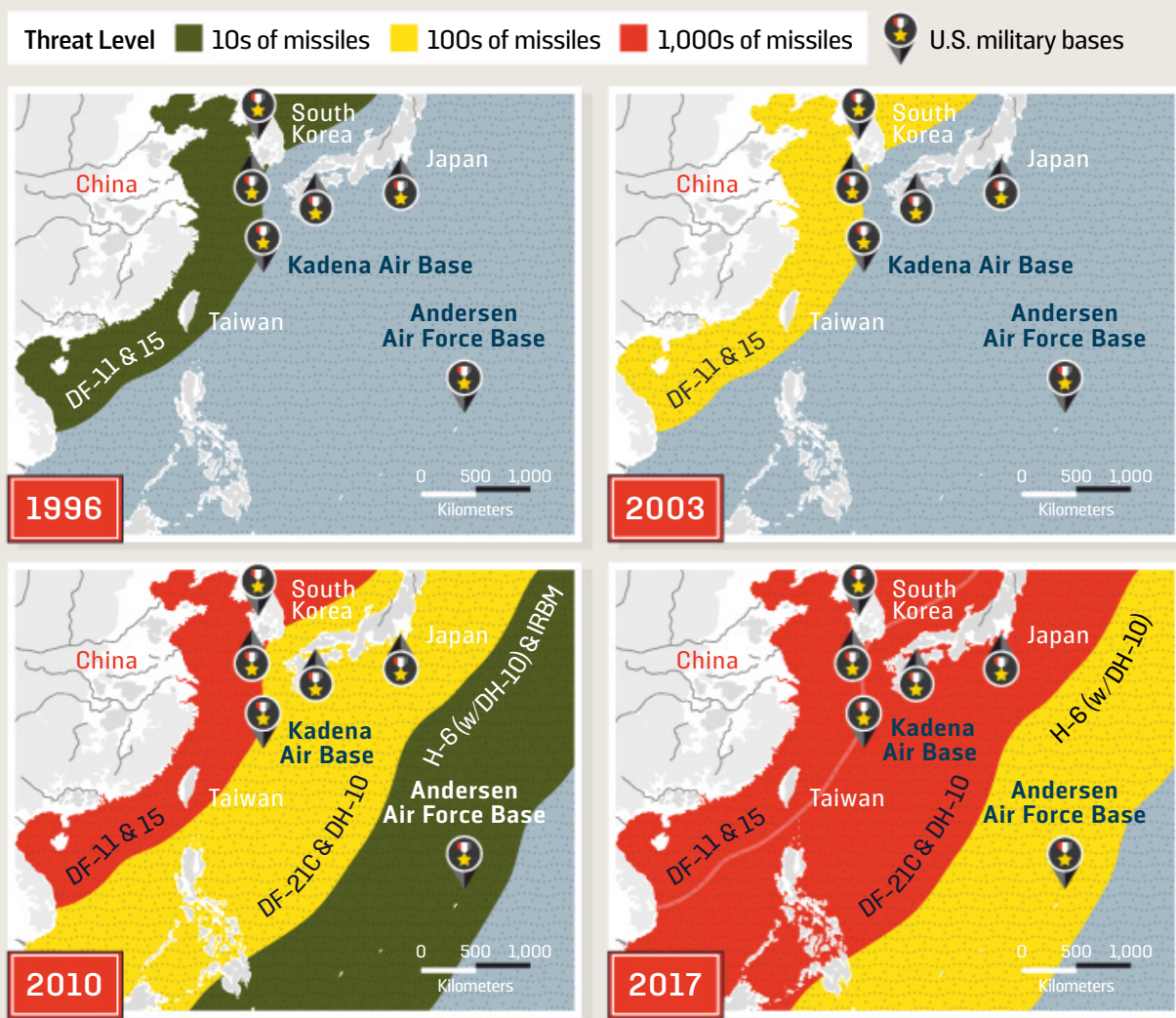
that of the United States and incapable of striking accurately beyond territory it owned or occupied. Meanwhile, the desert provided an optimal environment for U.S. surveillance and precision strikes, and Baghdad had no nuclear weapons to deter Washington from launching such a pulverizing assault.

The world took note of the awesome power of the U.S. military. Until today, no other country has dared to assault a U.S. ally. The point was only magnified by the prowess the United States showed in its wars against Serbia, the Taliban in Afghanistan, and Iraq in 2003.

The problem today, however, is the approach that worked so well against these so-called rogue state adversaries will fail against China or Russia. That is

because they have spent the last 10 to 20 years specifically figuring out how to undermine it. Victory, as the old saying goes, is never final, and it breeds its own frustration. Today that takes the form of two militaries that, while different, pose serious and intensifying threats to U.S. allies and established partners in Eastern Europe and the Western Pacific.

The core of both countries' challenge to the U.S. military lies in what are commonly called anti-access/area denial (A2/AD) systems: in more colloquial terms, a wide variety of missiles, air defenses, and electronic capabilities that could destroy or neutralize U.S. and allied bases, surface vessels, ground forces, satellites, and key logistics



China's Growing Power

An estimate of the expanding reach and capacity of Beijing's conventionally armed ballistic cruise missiles.

"THE U.S.-CHINA MILITARY SCORECARD: FORCES, GEOGRAPHY, AND THE EVOLVING BALANCE OF POWER, 1996-2017," RAND CORP.

nodes within their reach. Both China and Russia have also developed rapidly deployable and fearsomely armed conventional forces that can exploit the openings that their A2/AD systems could create.

Despite these advances, both China and Russia still know that, for now, they would be defeated if their attacks triggered a full response by the United States. The key for them is to attack and fight in a way that Washington restrains itself enough for them to secure their gains. This means ensuring that the war is fought on limited terms such that the United States will not see fit to bring to bear its full weight. Focused attacks designed to pick off vulnerable members of Washington's alliance network are the ideal offensive strategy in the nuclear age, in which no one can countenance the consequences of total war.

The most pointed form of such a limited war strategy is the *fait accompli*.

Such an approach involves an attacker seizing territory before the defender and its patron can react sufficiently and then making sure that the counterattack needed to eject it would be so risky, costly, and aggressive that the United States would balk at mounting it—not least because its allies might see it as unjustified and refuse to support it. Such a war plan, if skillfully carried out in the Baltics or Taiwan, could checkmate the United States.

TO SUSTAIN WHAT MATTIS CALLS Washington's constellation of alliances and partnerships, the U.S. armed forces need to adapt to deal with a potential great-power threat. This will require making significant changes in the way the U.S. military is sized, shaped, postured, employed, and developed—a change from a Desert Storm model to one designed to defeat contemporary

Chinese and Russian theories of victory.

The U.S. military must shift from one that surges to battlefields well after the enemy has moved to one that can delay, degrade, and ideally deny an adversary's attempt to establish a *fait accompli* from the very beginning of hostilities and then defeat its invasion. This will require a military that, instead of methodically establishing overwhelming dominance in an active theater before pushing the enemy back, can immediately blunt the enemy's attacks and then defeat its strategy even without such dominance.

In doing so, the United States must demonstrate that its fight is reasonable and proportionate, leaving the terrible burden of major escalation on the opponent. Once their invasion has been blunted and then stopped, Beijing or Moscow will be forced to choose whether to escalate the war in ways that strengthen U.S. resolve and bring others to its side—or settle for a real, albeit limited, defeat.

Since the end of the Cold War, the Pentagon's force planning construct—the guidelines that determine how many and what kinds of forces it needs—has focused on the ability to fight two simultaneous wars against so-called rogue states. This standard has produced a force emphasizing the deployment of large numbers of troops optimized for beating the likes of Iraq, Iran, and North Korea—exactly the kind of force to which China and Russia have adapted.

In the near term, then, the Pentagon will need to make its existing forces more lethal, for instance by equipping U.S. aircraft and ships with more long-range missiles designed to sink enemy invasion ships. In the longer term, the military will need to go further, using artificial intelligence and autonomous systems in ways that can repel intense attacks by a China exploiting the same technologies.

But the U.S. military, even supplied

with the best technology, can't expect to succeed against major powers unless it rethinks its posture. The model of the last generation was a surge-based force that, when needed to eject an opponent from allied territory, would gradually and securely flow from the United States to a small number of fixed hub bases that were essentially immune to enemy attack and then launch an overwhelming assault from there. Improvements in military technology have now made these logistic tracks and bases vulnerable to enemy attack at every step.

The new force needs to fight from the immediate outset of hostilities to blunt the enemy's attack and, together with arriving follow-on forces, deny the fait accompli. To make this strategy work will require a force posture that is much more lethal, agile, and ready. To get there, the U.S. military must make its bases and operating locations more defensible and resilient as well as more geographically dispersed.

Nor can these efforts be confined to U.S. bases. The entire apparatus of the U.S. military—including its logistics network and communications systems—must shift from assuming invulnerability to expecting to be under consistent attack or disruption while still performing effectively. No longer can U.S. forces rely on exquisite systems operating with little margin for failure.

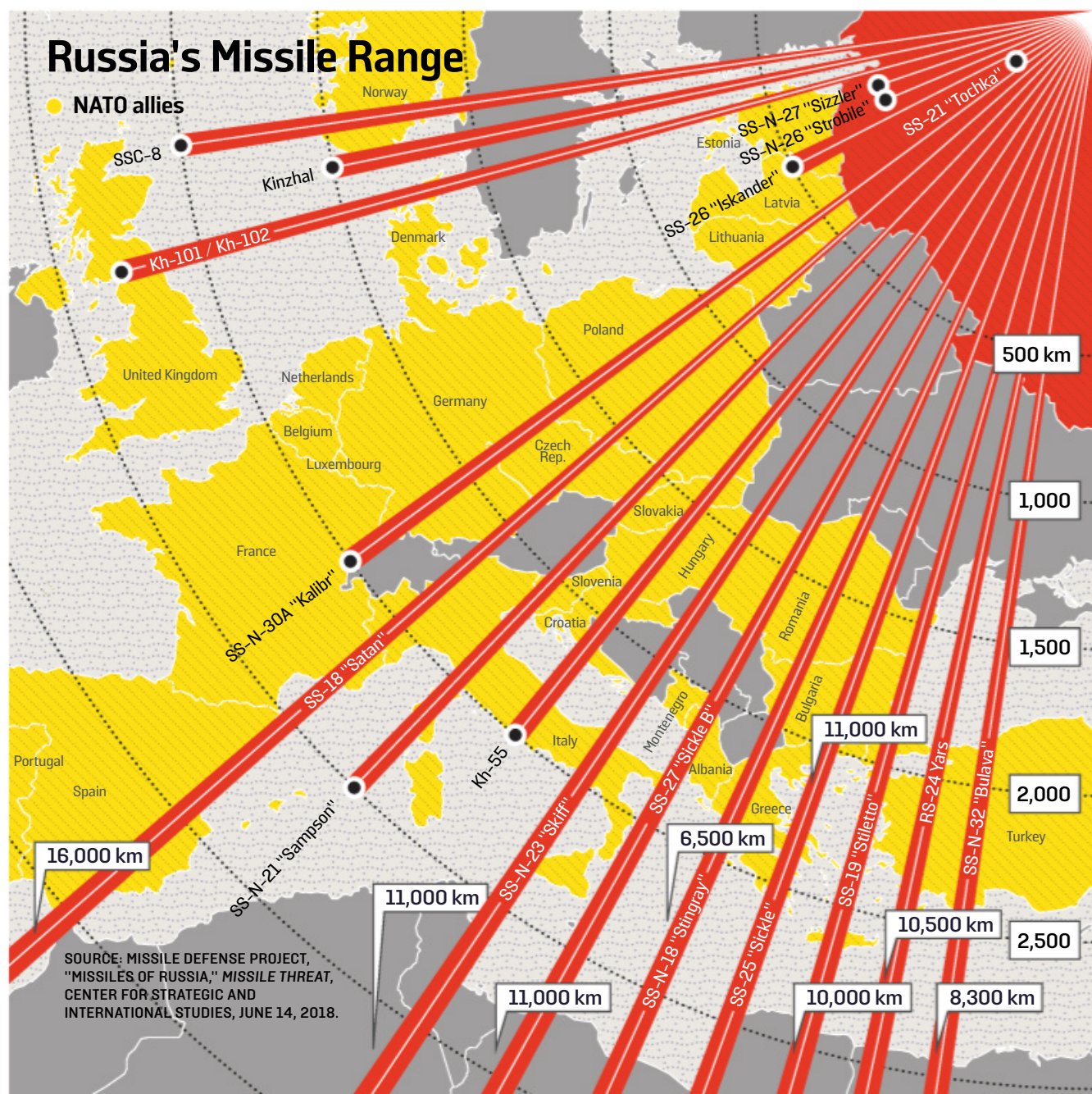
Realizing these goals will also necessitate a new approach to the way the armed forces are employed. The National Defense Strategy provides an effective model, one that seeks to orient U.S. and allied forces toward denying China or Russia the ability to rapidly seize territory and then harden its gains in a fait accompli. The model calls, first, for small contingents of U.S. forces to work closer toward potential front lines alongside local partners in a so-called contact layer to build relationships, deny adversaries the ability to manipulate information, and set con-

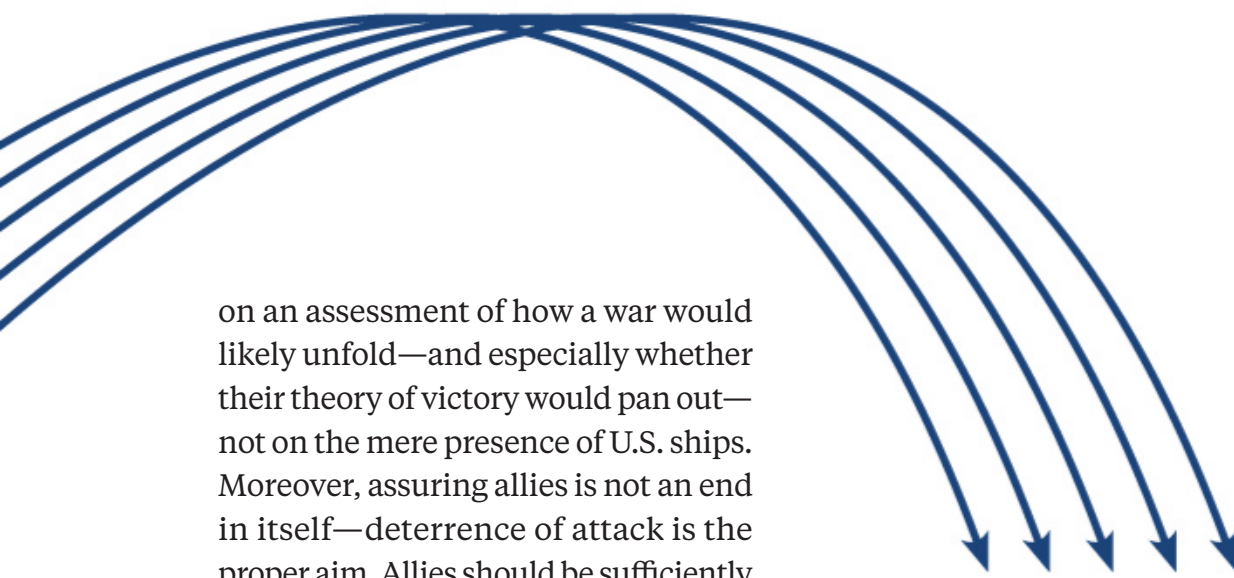
ditions for potential battle.

Second, a resilient and lethal blunt layer of U.S. and allied forces should be present in or near vulnerable allies or partners to delay, degrade, or deny enemy advances, thus frustrating the fait accompli. Their task will be to buy time and space for surge layer reinforcements coming from farther away that are trained to arrive, pick up their gear, integrate with friendly forces already in the field, and get quickly to the fight. Key forces that cannot quickly be deployed, such as air defense units and armored vehicles, would be based close to the potential fields of battle, while more flexible force elements—such as infantry and tactical aircraft—would be trained to arrive and engage the enemy before it can seal the fait accompli.

FOR THE UNITED STATES TO FOCUS its military on readying for great-power conflict, it needs to use it far less for secondary missions. Over the last generation and especially since 9/11, the operations tempo of the U.S. military has risen markedly. Not only have U.S. forces been continuously committed in the Middle East, Central Asia, and Africa, but even many of those units that are not directly engaged in those wars have been constantly participating in operations such as ship cruises and exercises designed to deter adversaries and assure allies. These factors have significantly eroded the force's readiness for a high-end conflict.

This must change. Beijing's or Moscow's calculations of whether to attack or precipitate crises over Washington's allies are going to be based





on an assessment of how a war would likely unfold—and especially whether their theory of victory would pan out—not on the mere presence of U.S. ships. Moreover, assuring allies is not an end in itself—deterrence of attack is the proper aim. Allies should be sufficiently assured to prevent defeatism or buckling, but too much reassurance encourages free riding, which Washington can no longer afford to ignore.

As a result, much of the U.S. military is not as ready as it should be to fight Russia over the Baltics or China over Taiwan. To rectify this problem, Air Force and Navy pilots should spend more time at high-end exercises and training schools and less time in air patrols over the Middle East, and Army units should practice fighting Russians and spend less time on counterinsurgency operations. Exercises with European allies should focus more on honing their ability to defend NATO than political symbolism.

The final piece of U.S. defense strategy that needs to change is the relationship with allies and partners. Unlike in the post-Cold War era, the United States needs its allies to help blunt Russian or Chinese invasions but also respond to crises and manage secondary threats around the world. U.S. forces are simply not large enough to do all this themselves—and, given the necessity for the Pentagon to focus on competing with Beijing and Moscow, the U.S. military's future focus must be on quality rather than size.

Washington should encourage different allies to focus on different roles, depending on their military situation and development level. Front-line allies and partners such as Japan, Poland, Taiwan, and the Baltic states should concentrate on their ability to blunt Chinese or Russian attacks on their territory and to restrict Beijing's or Moscow's ability to maneuver through adjoining airspace and waterways by building their own A2/AD capabilities.

A clarity in priority means hard choices but does not mean ignoring other threats to America's interests, including terrorists. It does, however, mean right-sizing the U.S. approach to these threats.

Higher-end allies farther from potential battlefields, such as Australia and Germany, should work on contributing, both through their forces and basing, to defeating Chinese or Russian aggression against nearby allies. Partners such as France, Italy, and Spain with established interests in places such as North Africa should allocate more forces to handling secondary threats there.

THE STRATEGY OUTLINED IN THIS ESSAY is an ambitious one. But it is feasible at current spending levels—if the Pentagon and Congress make the hard choices needed. A serious strategy in challenging times should provide clarity on what is more important and what is less so and thus what to do and buy and what not to. Strategies that promiscuously enumerate threats, and call for equivalent vigilance between great powers that can change the world and rogue states and terrorists that cannot, will diffuse and squander Washington's scarce attention and resources. Such strategies call to

mind the remark about ordinary critics, who, striving for balance, search for truth in the middle, between the extremes of right and wrong. Certain threats are simply more consequential than others and thus demand more attention.

A clarity in priority means hard choices but does not mean ignoring other threats to America's interests, including terrorists, North Korea, and Iran. It does, however, mean right-sizing the U.S. approach to these threats. The United States cannot afford to transform recalcitrant Middle Eastern societies or pursue an eliminationist vision of counterterrorism—but it does not need to. It needs to defend itself from a North Korean nuclear attack and help South Korea defend itself from invasion by Pyongyang. But it does not need to be able to invade and occupy the North. The United States needs to relentlessly pursue terrorists who can directly threaten it and its allies, but it does not need to strike at every extremist with a taste for violence or remake the societies in which they live. The United States needs to check Iran's aspirations for regional hegemony but not overthrow the Islamic Republic. Moreover, the United States does not need F-22s to attack terrorist havens nor whole brigade combat teams to advise Middle Eastern militaries; cheaper drones and tailored advise-and-assist units will do.

To quote Carl von Clausewitz's immortal line, "Nothing is more important ... than finding the right standpoint for seeing and judging events, and then adhering to it." The United States has found the right standpoint with the National Defense Strategy. Now it is a matter of realizing it. ■

ELBRIDGE COLBY (@ElbridgeColby) is the director of the defense program at the Center for a New American Security. He served as the deputy assistant secretary of defense for strategy and force development in 2017-2018.

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Photo credits: top row center, Boston University, Frederick S. Pardee School of Global Studies (students doing internships abroad); bottom row center, UC San Diego School of Global Policy and Strategy (students)

Launching a Career in International Affairs

New Areas of Demand for International Affairs Professionals

*Introduction by Carmen Iezzi Mezzera,
Executive Director, Association of
Professional Schools of International Affairs
(www.apsia.org)*

Career opportunities in cities such as Washington, D.C., Tokyo, and Geneva are well known; but now, demand for an international affairs skill set is rising well beyond traditional epicenters.

State and local governments understand that global issues impact the security and prosperity of their citizens. Cross-cultural understanding, language skills, and a global perspective are vital for a range of public services: welcoming tourists, attracting foreign direct investment, bringing communities together, combating terrorism, and more.

Private companies, from start-ups to multinationals, need to navigate a rapidly changing global marketplace. They seek professionals with an understanding of the politics, economics, and cultures in different parts of the world and the analytical skills to assess risk in different markets.

As nonprofit organizations expand their monitoring and evaluation work, they need staff who can perform effective analyses, maintain flexibility, and make crucial connections—skills taught at leading schools of international affairs.

In the 2019 FP Guide to Launching a Career in International Affairs, you will learn about a variety of master's degree programs and ways to open doors to promising international affairs career opportunities.

UC San Diego School of Global Policy and Strategy

Opportunities for UC San Diego School of Global Policy and Strategy (GPS) graduates remain strong despite recent shifts in the climate for launching a career in international affairs. In fact, employment rates for the GPS class of 2017 are the highest seen in the last decade: 97 percent of graduates have found relevant employment.

“We’ve had more students indicate interest in local, state, and municipal government than in the past,” says David Robertson, director of career services. Thanks to the strong analytical and econometrics skills of GPS graduates, city and state governments, auditors, and public utilities often hire them to do research analysis.

“Our program is known for its heavy quantitative focus, and our students develop strong data analysis skills,” notes Robertson.

The school’s long-established Master of International Affairs (MIA) program attracts U.S. and international students. The Master of Public Policy (MPP) program focuses on U.S. policy-making within a global context. Its specialization options are tied to areas of growing employment demand, such as environmental policy, business, health, and security.

Students in the MPP program tend to be interested in policy-oriented jobs. While many gravitate to D.C. and to opportunities with U.S. intelligence agencies, GPS is also in a prime location for job opportunities in California and other western states—particularly in the technology sector and in careers involving sustainable energy and environmental policy.

“California leads in the tech sector and in environmental and renewable energy,” says Robertson. “Federal EPA hiring has slowed,



“Our program is known for its heavy quantitative focus, and our students develop strong data analysis skills.”

—David Robertson, Director of Career Services, UC San Diego School of Global Policy and Strategy



but our graduates are pursuing environmental policy careers in the nonprofit sector and in local government.”

Sixty percent of GPS graduates work in the private sector, including multinational employers such as AECOM, Booz Allen Hamilton, Citi, Deloitte, KPMG, Maersk, and Qualcomm.

While many students enter GPS with an eye toward careers in international development, they discover opportunities in business development, marketing, and government affairs. Supply-chain analysis and financial-data analysis are among the wide range of career opportunities.

Beyond the private sector, a number of GPS graduates have joined the World Bank, the World Wildlife Fund, and U.S. government agencies such as the CIA, the Department of Homeland Security, and the Governmental Accountability Office.

For class of 2017 graduates employed in the U.S., starting salaries averaged \$69,000 in the private sector, \$60,000 in the public sector, and \$53,360 in the nonprofit and multilateral sectors.

In searching for internships and jobs, students can draw on a network of more than 3,000 GPS alumni spanning 81 countries. Many also build ongoing relationships with members of the school’s Alumni Mentor Program.

In the GPS Alumni-in-Residence program, selected alumni spend an academic quarter on campus and keep office hours. Students can meet regularly with alumni working in their area of interest.

GPS also leads visits to organizations based in Southern California and offers annual student trips to San Francisco; Sacramento, Ca.; New York City; Washington, D.C.; and other cities, where alumni often host group visits with their employers.

<http://gps.ucsd.edu>

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UC San Diego





“Employers are looking for reliability—someone who can come in on day one fully prepared and not be intimidated.”

—Christopher Ankersen, Clinical Associate Professor, NYUSPS Center for Global Affairs

New York University School of Professional Studies, Center for Global Affairs

A second master’s degree program, new specialty concentrations, and expanded opportunities to work with real-world clients give students at the NYU School of Professional Studies (NYUSPS) Center for Global Affairs (CGA) more ways to hit the ground running once they enter the rapidly changing world of work.

CGA is using a range of initiatives to prepare its students for careers in international relations, not only with a solid grounding in concepts and theory, but with practical experience tackling real-world problems, says Clinical Associate Professor Christopher Ankersen. He knows something about real-world problems, having worked for the United Nations in Thailand; in Phnom Penh, Cambodia; in Geneva; and in Vienna before joining NYUSPS.

“Employers are looking for reliability—someone who can come in on day one fully prepared and not intimidated,” Ankersen asserts. “With the practical experience integrated into their course work, students come to realize that this isn’t like writing a paper or just stating the right answer in an essay. A lot of logistics, people management, and time management are not covered in a textbook, but they are essential.”

The new MS in Global Security, Conflict, and Cybercrime is the first degree introduced since CGA was established 15 years ago with

its original MS in Global Affairs. The degree focuses on transnational security issues of cybercrime, cyberconflict, and cyberwarfare, with an emphasis on understanding the effects of—and possible solutions for—disinformation, espionage, and terrorists’ use of emerging technologies and media.

CGA is also offering two new specializations within its current MS in Global Affairs: data analytics and United Nations studies. Students who complete one of these specializations will be able to provide employers with concrete evidence of their expertise in that area. The specializations can be combined with one of eight concentrations, including Global Gender Studies, International Law and Human Rights, Peacebuilding, and Transnational Security, among others.

CGA also is rapidly expanding its consulting practicums, in which students work directly with one of a dozen outside clients, who seek expertise and new solutions in solving specific problems. Clients include institutions such as the U.S. Department of State and the United Nations Security Council Counter-Terrorism Committee Executive Directorate.

“Rather than wait for students to apply their knowledge after they graduate, we’re trying to bring those experiences into the students’ reality now,” Ankersen says. “That way, they get to do it with the mentorship and guidance of a faculty member, but at the same time are involved in a real-world situation dealing with real problems.”

The research and capstone requirement for the MS in Global Affairs also is evolving. Rather than merely writing a traditional academic paper, students now also give a presentation to explain the problem they are addressing and potential solutions.

“We introduced that requirement to mirror what we think is relevant and front-and-center in the real world,” Ankersen says. “We are trying to take this perspective in everything we’re doing.”

www.sps.nyu.edu/cga

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WHAT IT TAKES

Shifting dynamics between global powers, the rise of new and dangerous political ideologies, and the evolution of technology into a threat against our everyday lives, are all contributing to governments, countries, and society at large undergoing dramatic and far-reaching transformations. While each issue that arises poses its own dilemma, they are all undeniably intertwined. It is the global professional with the insight and understanding of the complex factors at play, who will be of greatest value.

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“Our faculty put a premium on teaching, advising, and helping students develop their skills for the next step in their career.”

—William W. Grimes, Associate Dean for Academic Affairs and Professor of International Relations, Frederick S. Pardee School of Global Studies, Boston University

Boston University, Frederick S. Pardee School of Global Studies

Last summer, four students from Boston University’s Frederick S. Pardee School of Global Studies traveled to rural India with Assistant Professor Mahesh Karra to help implement a study on the impact of a social network-based family planning intervention on women of reproductive age. Two other students accompanied Assistant Professor Julie Klinger to the remote Brazilian Amazon, where they studied the impacts of environment, development, and security policy on the Yanomami indigenous people.

It is not unusual for students to engage in research with professors at the Pardee School. “Our faculty put a premium on teaching, advising, and helping students develop their skills for the next step in their career,” says William W. Grimes, associate dean for academic affairs and professor of international relations. “Career opportunities are part of the educational opportunities here.”

The Pardee School also puts a premium on networking opportunities for students. The school hosts a monthly symposium where students meet with international affairs professionals, including Pardee alumni, and can talk to them one-on-one about organizations that interest them.

“In terms of preparing our students, we certainly follow what’s going on in D.C., but we’re also looking at large-scale changes in the world,” says Grimes. Pardee School faculty offer a wide range of expertise in areas such

India Project, The Jaunpur Social Networks Study

as sustainable development, environmental sustainability, migration and refugee issues, gender and global affairs, and religion and international affairs.

About one-third of graduates pursue careers in government service, another third are employed with nongovernmental organizations, and the remaining third work in the private sector.

Federal government employers of Pardee School graduates have included, for example, the U.S. Department of State, the U.S. Secret Service, USAID, and various U.S. intelligence agencies.

Pardee School alumni have also found opportunities with the U.S. Institute for Peace, the World Bank, refugee-related NGOs, the U.K. Department for International Development, the German Society for International Cooperation, the Atlantic Council, and various global health and development organizations.

Some students who begin their studies with an eye toward careers in the public or nongovernmental sector gravitate toward private sector opportunities, and the Pardee School curriculum provides good preparation for such jobs as well. “They come to realize that there’s more space in the private sector where they can use their skills,” says Grimes. Pardee School alumni have pursued career opportunities with private equity firms, public relations firms, news organizations, and risk analysis agencies.

www.bu.edu/pardeeschool

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reviews

What if Israel Threw a Eurovision Party and Nobody Came?

A glitz and glam song competition turns political.

By Joshua Mitnick

EUROPE IS CURRENTLY STRUGGLING TO REDEFINE ITS TIES to Britain and chafing over its rapport with U.S. President Donald Trump's administration. But the continent's most complicated relationship may be with Israel. Many Israelis still view Europe as a fount of anti-Semitism, generally latent but sometimes blatant. And many Europeans consider Israel's long military rule over millions of Palestinians in the West Bank and Gaza to be one of the world's ugliest human rights violations. All of these tensions could peak in May, when Israel hosts Europe's annual pop song competition, Eurovision.

An extravaganza of glitz and camp, Eurovision was established 63 years ago by an association of European public broadcasters as a way to knit Western Europe together during the Cold War. Over the years, it has grown to include dozens of countries and been a launchpad for international pop acts including Sweden's ABBA and Céline Dion, who

represented Switzerland. Israel made its Eurovision debut in 1973; although not technically European, it was able to join because the Israel Broadcasting Authority was already a member of the European Broadcasting Union. Since then, the contest has held a special place in the Israeli imagination, and Israel has won four times.

Israel secured the right to stage this year's edition after its representative, Netta Barzilai, took first place last year. Tel Aviv, the host city, is gearing up for a huge influx of fans and has explored setting up campsites and leasing a cruise ship to accommodate hotel overflow.





Forty-two countries will be sending acts.

But tensions have been mounting since Israel began planning the event last year. The European Broadcasting Union has pressed Israel for a commitment not to block entry to Eurovision delegations for political reasons—a fear based on the tendency of Israeli border officials to interrogate and sometimes turn back visitors who have been outspoken in their support for the Palestinians. A bid to hold the festivities in Jerusalem raised the possibility that Israel’s government would use the show as a platform to highlight its claim to the city as its undivided cap-

ital. Supporters of a pro-Palestinian campaign calling for boycott, divestment, and sanctions against Israel have called on entertainers to stay away.

“There’s a lot of politics in the competition. It’s a fascinating focal point for ties between Israel and Europe and Israel and the EU,” said Galia Press-Barnatan, a professor of international relations at the Hebrew University of Jerusalem.

“The relations have never been better, but some things have never been worse.”

As Press-Barnatan points out, Europe and Israel share many points of affinity. A free trade agreement with the European Union signed more than two decades ago has turned the bloc into Israel’s biggest trading partner. Many Israelis hold EU passports, thanks to their parents’ or grandparents’ European origins. Israeli basketball and soccer teams compete in pan-European tournaments.

But the EU has remained an outspoken proponent of a two-state solution, even as the United States has become less vocal on the issue and Israeli Prime Minister Benjamin Netanyahu’s government has grown decidedly hostile to the idea. The EU has also insisted that products made in West Bank settlements for sale in Europe be labeled “Israeli settlement” rather than “made in Israel” so that they don’t benefit from the free trade agreement and so that European consumers know what they’re buying. Under a joint research program, the EU has allocated some \$150 million in research and development grants for projects with Israeli universities but has also angered Israeli politicians by stipulating that the funds must be spent inside the country’s pre-1967 borders.

These and other measures prompted Netanyahu to accuse the EU late last

year of taking a “hypocritical and hostile” stance toward Israel. For seven years now, disagreements over policy toward the Palestinians have prevented the convening of what’s supposed to be an annual bilateral diplomatic summit on Israel’s relations with the EU. “Europe and Israel are certainly conducting a policy of distancing from each other,” said Oded Eran, a former Israeli ambassador to the EU and a senior research fellow at the Institute for National Security Studies at Tel Aviv University.

But there seems little chance that Israelis will distance themselves from Eurovision. When Barzilai’s feminist anthem “Toy” clinched first place last year, thousands of Israeli fans celebrated in the pre-dawn hours with a dip in the fountain at Tel Aviv’s Rabin Square. On her return, Barzilai received a hero’s welcome and reprised her signature chicken dance for Netanyahu.

“We care what everyone thinks about us—which is something you don’t see as much when there’s a war in Gaza, when dozens of Palestinians are getting killed,” said Eran Singer, an Arab affairs analyst with Israeli public radio and a Eurovision devotee.

“We care what everyone thinks about us—which is something you don’t see as much when there’s a war in Gaza.”

Israelis across the political spectrum have reasons to feel good about the event taking place in Israel, Press-Bar-natan said. “If you are a right-wing nationalist, this is a way to make a point that the [boycott movement] has lost and how successful you are. If you are a liberal cosmopolitan Israeli, this is a way to embrace the world.”

Eurovision Executive Supervisor Jon Ola Sand said in an interview with the Israeli newspaper *Haaretz* that he didn’t want anything to get in the way of the entertainment. “As an organization, we have a promise to our participating broadcasters to keep the shows free of politics,” he said. As with the Olympics, however, politics are inevitable whenever countries compete. And picking the winner of a pop music contest is

much more subjective than determining who won a 100-meter dash. Victory in the Eurovision contest is decided by a combination of jury and telephone voting from participating countries.

In 2017, Russia pulled out of that year’s contest, which was to be held in Kiev, when its representative was denied entry by the Ukrainian authorities. This year, Iceland’s representative, the band Hatari, has vowed to protest Israeli policies while at the competition, and boycott efforts have been mounted in several other participant countries.

But none of the broadcasters has pulled out, underscoring just how difficult it is for Palestinians and their supporters to get Europe to use its leverage to force a change in Israeli policies. For one thing, resolving the Israeli-Palestinian conflict has taken a back seat to more urgent issues, such as Brexit. What’s more, European states are far from united on Israel: While some countries have led the campaign to label exports from Jewish settlements, others are considering following the U.S. lead on moving their embassies to Jerusalem.

“Europe is deeply divided on the Israeli-Palestinian issue. ... Therefore you can’t get a unanimity for tougher measures,” Eran said. “One has to admit there is fatigue regarding this protracted conflict, and there’s disappointment with the Palestinian Authority and the rift with Hamas.”

With anti-Semitic violence and xenophobic sentiment rising across the continent, the symbolism of, say, a boycott of Israel would expose European governments to intense criticism. That’s one more reason Europe’s delegations are expected to show up in Tel Aviv in May.

JOSHUA MITNICK (@joshmitnick) is a journalist based in Tel Aviv.

Activists in Bethlehem, along Israel’s separation barrier between Jerusalem and the West Bank, call for a boycott of Eurovision on March 22.



PREVIOUS SPREAD: HEIKKI SAUKKOMAA/AFP/GETTY IMAGES; DIMITAR DILKOFF/AFP/GETTY IMAGES; CORNELIUS POPPE/AFP/GETTY IMAGES; VENLA SHALIN/REDFERNS/WARNING ABBOTT/GETTY IMAGES; MICHAEL PUTLAND/GETTY IMAGES/ROBERT MARQUARDT/GETTY IMAGES; FRANCISCO LEONG/AFP/GETTY IMAGES; PEDRO FIUZA/NURPHOTO VIA GETTY IMAGES; TOM BUIST/DAILY MIRROR/MIRRORPIX/GETTY IMAGES; THIS PAGE: MUSA AL SHAER/AFP/GETTY IMAGES



Odette Sansom served as a courier spy in Britain's Special Operations Executive during World War II.

Arms and the Woman

A group of new books explores women's experience in war. *By Teresa Fazio*

LONG BEFORE THE #METOO MOVEMENT began to spread across the world, women had started playing increasingly prominent roles in armies around the globe, from the United States to Iraqi Kurdistan. It's no surprise, then, that the literature of war is finally catching up, expanding past macho tales into more nuanced investigations of women's experiences.

Against this backdrop comes *D-Day Girls* by the journalist Sarah Rose and *Code Name: Lise* by Larry Loftis, who previously wrote about the World War II double agent Dusko Popov. Both books tell the stories of female British spies who worked to shore up the French Resistance in preparation for the Allied D-Day landings. It's hardly an unknown slice of the war—numerous previous World War II narratives have focused on women and their work—but Rose and Loftis delve unusually deeply into the personal lives of their heroines, as well as their work.

D-Day Girls, written with novelistic detail, weaves together five women's narratives using historical research from contemporary periodicals, archives, and interview records. The

British government, Rose writes, was initially concerned about allowing women into the Special Operations Executive (SOE), a secret agency formed in 1940 to foment insurgency in land captured by Nazi Germany. Nicknamed the "Ministry of Ungentlemanly Warfare" by Winston Churchill, the SOE did not send female agents overseas until 1942. As Rose writes, "Putting women in the line of fire was obscene, the brass said: War is fought by men for the sake of women and children. ... The Edwardians who ran the war ... believed female recruits would deliver a new weapon into Hitler's hands: rape." Such arguments, as Rose recounts them, echo contemporary U.S. officials' concerns about putting women in combat. As recently as 2016, Owen

West, who is now the assistant secretary of defense for special operations and low-intensity conflict, along with his father, Bing West, a former assistant secretary of defense for international security affairs, argued that changing a “band of brothers” to a “band of co-eds” would soften the units’ ferocity.

British officials’ initial fears weren’t entirely unfounded. Agents captured in Nazi-controlled territory risked torture and death. But that applied to male agents as well as female ones. And rather than being a liability, the women of the SOE—typically French-born Englishwomen—enjoyed certain advantages their male peers did not. They often posed as refugee widows or schoolgirls bicycling about the countryside, which allowed them to draw far less suspicion than a solitary man might while delivering messages or operating covert radio transmitters. Female agents—trained in parachuting, hand-to-hand combat, the use of pistols, and demolitions—also recruited and mobilized operatives in preparation for the Allies’ eventual D-Day invasion.

What separates these books from previous spy stories of the same period is the way these authors take pains to show that the women’s identities as wives, sisters, daughters, and mothers were inseparable from their wartime activities. As *D-Day Girls* recounts, Andrée Borrel, a former Parisian shopgirl who came to England after helping downed pilots escape occupied France, regularly visited her sister while working undercover in Paris for the SOE and made lovers of two male agents in consecutive years. In a similar vein, *Code Name: Lise* shows how a spy named Odette Sansom struggled with boredom in her duties as a housewife and stay-at-home mother before deciding to answer Britain’s call to duty.

Skip ahead about 70 years, and some of the tensions remain similar. In *War Flower*, a memoir by the Iraq War veteran Brooke King, the author toggles between a brutal deployment and family obligations.



D-Day Girls: The Spies Who Armed the Resistance, Sabotaged the Nazis, and Helped Win World War II

SARAH ROSE, CROWN,
400 PP., \$28,
APRIL 2019



Code Name: Lise: The True Story of the Woman Who Became WWII's Most Highly Decorated Spy

LARRY LOFTIS,
GALLERY BOOKS,
384 PP., \$27,
JANUARY 2019



War Flower: My Life After Iraq

BROOKE KING,
POTOMAC BOOKS,
280 PP., \$28.95,
MARCH 2019



War Flower is a series of scene sketches detailing the chaotic childhood that drove King into the U.S. Army, her gruesome deployment as a mechanic assigned to collect human remains from bombed-out vehicles, and her return as a pregnant veteran. Her advice to fellow female soldiers is blunt: “Keep tampons in your grenade pouch for bullet wounds” and “Do not fucking die.” Women in combat must take pains to hide their vulnerability from their male comrades, King writes: “Don’t ask for help from the hajjis or the infantrymen or the Cav scouts; they all like fucking with women.”

In Iraq, King finds respite from her abusive first marriage in another fellow soldier, Cpt. James Haislop. But in narrating their relationship, she shows how women’s war experiences frequently differ in yet another manner: When the affair results in King becoming pregnant, she is sent back to a base in Germany and takes a voluntary discharge. Meanwhile, the Army fires Haislop and jails him for drug abuse and fraternization. Their fate marks a vast gulf from one of the D-Day Girls, Mary Herbert, who at the age of 40 intentionally conceived a child while undercover in Poitiers, France, with her agent partner (and later husband) Claude de Baissac. Their infant daughter threw Germans and French neighbors alike off Herbert’s trail; no one suspected that a frail new mother would risk working for the Resistance. This unexpected blend of motherhood and spycraft gave Herbert an advantage. But the story also underscores how spies have a wider range of feminine roles available to them than ground troops do.

All three of these books also offer a new dimension to previously written histories of the long-term consequences of war on mental health and relationships. Herbert’s “immedi-



ate postwar years were anxious ones,” Rose writes. She calls Sansom “shell-shocked,” while Loftis references a “nervous condition” noted in Sansom’s personnel file; both would today be diagnosed as severe post-traumatic stress disorder. And King’s gory post-deployment nightmares ratchet up her stress while parenting twin toddlers during her volatile second marriage to Haislop. Her memoir is laced with stories of drug and alcohol abuse and the long shadows of combat trauma she and her loved ones experienced.

In the 1940s, women and their relationships had it no easier: Sansom became romantically involved with fellow SOE agent Peter Churchill while undercover in France. She married Churchill after they returned to the United Kingdom. Though the 1950 movie *Odette* portrayed their relationship’s romantic origins, the pair divorced in 1956. The experiences narrated in these stories are reflected in the broader military. A 2007 study by the Rand Corp. found that divorce rates in the U.S. military were nearly three times higher for enlisted women than for their male counterparts, and a study of 1,358 U.S. Army families published in the *Journal of Marriage and Family* in 2016 showed “the experience of prior deployments is associated with significantly lower current marital satisfaction among military couples.” Though these studies indicate that all military marriages suffer when one partner deploys,

LEFT: A female U.S. soldier searches an Iraqi woman outside her home in Baghdad on March 21, 2004. ABOVE: U.S. Army Sgt. Michelle Porter reunites with her 2-year-old daughter in Fort Knox, Kentucky, on Nov. 20, 2013, after a nine-month deployment in Afghanistan.

female service members are more likely to see their relationships end.

In addition to losing their marriages, women often find that men discount their combat experience. When a pregnant King’s family finally coaxes her into visiting a California Veterans Affairs hospital, a male doctor points to men suffering from traumatic brain and spinal injuries and tells King to, in her words, “think long and hard before lying about combat.” The doctor’s blithe assumption that King must be lying about the shrapnel in her shin came after her 2006 deployment, during which she and other women saw combat on convoys, at checkpoints, and while attached to infantry units on patrols, even though the U.S. Congress had not yet opened combat arms jobs to them.

As for Sansom, although she was eventually awarded the George Cross and membership in the Order of the British Empire, that did not prevent two former French Resistance members from claiming that she lied about her torture and slept her way to freedom. Although Sansom’s colleagues at the SOE backed her up, many of her actions could not be publicly corroborated until files were declassified in 2003.

These books also show that no one can completely compartmentalize war trauma and there is no single way to serve. The three books—as well as *Madame Fourcade’s Secret War* by Lynne Olson, which narrates the history of France’s top World War II spymaster; *Love My Rifle More Than You* by Kayla Williams; and *Shoot Like a Girl* by Mary Jennings Hegar—are the beginnings of a new library and a more robust approach to analyzing women’s essential role in war. This literature represents the early days of women’s military narratives; we still need to hear from women in non-Western armed forces. Their stories are still waiting to be told. ■

All three of these books offer a new dimension to previously written histories of the long-term consequences of war on mental health and relationships.

TERESA FAZIO (@DoctorFaz) is a former U.S. Marine officer and freelance writer in New York City.

BOOKS IN BRIEF

How to Hide an Empire: A History of the Greater United States

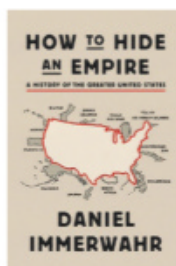
WHEN MOST PEOPLE PICTURE A MAP OF THE UNITED STATES, they usually envision what is known as the lower 48—the contiguous continental states. Maybe they’ll add on Alaska and Hawaii. But they’re missing the bigger picture, argues the Northwestern University history professor Daniel Immerwahr in *How to Hide an Empire*. The United States also includes territories such as Guam, American Samoa, and Puerto Rico. And in the 20th century, it controlled the Philippines, the Panama Canal Zone, and hundreds of tiny islands in the Caribbean and Pacific.

“The history of the United States is the history of empire,” Immerwahr argues. For the most part, he doesn’t mean an empire like Britain’s, where prime ministers and the public took pride in the red maps that stretched around the world—though there’s a bit of that. U.S. President Theodore Roosevelt, for example, eagerly sought out a “splendid little war,” as the British ambassador called it, that would allow the United States to snap up the last bits of the crumbling Spanish Empire.

Immerwahr’s main focus, however, is on what he calls the “Greater United States”—that is, all the bits and specks of lands and islands that have a big, if underexplored, place in U.S. history. And once Immerwahr starts looking, the historical consequences of those territories proliferate.

America’s Pacific territories sucked the United States into World War II: Surprise Japanese attacks on Hawaii (not yet a state) and the Philippines (still a U.S. territory) led to the U.S. declaration of war on Japan. And America’s Caribbean territories, especially Puerto Rico, have repeatedly played an outsized historical role. In 1950, irate Puerto Rican nationalists, fed up with decades of second-class status, came within inches of assassinating President Harry Truman. More recently, President Donald Trump’s apparent disregard for Puerto Rico led to an anemic federal response to Hurricane Maria.

How to Hide an Empire is not only fast-paced and fascinating, but it also offers a fresh view of



How to Hide an Empire: A History of the Greater United States

DANIEL IMMERWAHR, FARRAR, STRAUS AND GIROUX, 528 PP., \$30, FEBRUARY 2019

An artist's rendering of an atom bomb test by the United States over Bikini Atoll in the Marshall Islands in June 1946.

U.S. history. The Japanese film *Gojira*, for example, is a direct result of America’s hidden empire overseas: Atomic bomb tests on Bikini Atoll sickened Japanese fishermen, which prompted a kitschy, anti-nuclear movie featuring a giant sea monster. (*Gojira* was later exported to the United States, renamed *Godzilla*, and was heavily edited to remove the anti-nuclear politics.)

Taking a more expansive view of the United States’ postwar empire—a sprawling network of some 800 military bases around the world—the legacy of greater America ranges from the surprising to the dangerous, Immerwahr finds. Thanks to the massive nearby U.S. air base at Burtonwood, England, in the 1950s and 1960s Liverpool was flooded by the latest American rock-and-roll records; those inspired the creation of hundreds of cover bands, including one that would become the Beatles. And two decades later, the sprawling network of U.S. bases, the informal empire, was the driving force behind Osama bin Laden’s vow to rid the Middle East of American troops. ■

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Our Man: Richard Holbrooke and the End of the American Century

THE LATE RICHARD HOLBROOKE, the American diplomat perhaps best known for brokering the Dayton Accords that brought a truce to the Balkan wars, should be thought of as “our man,” George Packer writes in his homonymous book, because his self-defeating mix of idealism and egotism mirrored America’s own.

Holbrooke started his career in 1963 as a young foreign service officer banging his head against the unsolvable problem of Vietnam. He ended it much the same way, desperately searching for an answer to the United States’ endless quagmire in Afghanistan. The effort, Packer suggests, literally blew his heart out: His aorta ruptured while in a difficult meeting with Secretary of State Hillary Clinton. In between, his intense life took him through a half-century of U.S. history and foreign policy (and *FOREIGN POLICY*, where he was an editor from 1972 to 1977). His story is littered with failed marriages, bitter enemies, political exile, a few notable successes, and many more crushing defeats.

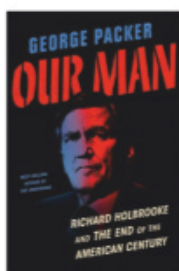
Packer, a staff writer at the *Atlantic*, hasn’t written a traditional biography. *Our Man* reads more like a winding, after-dinner tale about a deeply flawed man with a wholly admirable vision for what America is and what it can do in the world. Or could do.

“[W]e swing wildly between superhuman exertion and sullen withdrawal,” Packer writes, eulogizing both the eclipse of a United States engaged with the world and Holbrooke, who worked tirelessly to make the American century endure. “I’m amazed we came through our half century on top as well as we did. Now it’s over.”

Packer’s Holbrooke is a fascinating character, if not a particularly sympathetic one. Holbrooke fought tooth and claw in the Washington jungle, convinced, even if almost nobody else ever was, that he would one day be secretary of state.

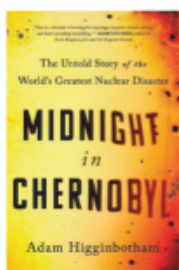
Holbrooke’s whole life was spent climbing, yet the closest to the top he ever got was being appointed President Barack Obama’s special representative for Afghanistan and Pakistan. Once in the job, Holbrooke knew what not to do—the memory of Vietnam never left him—but he couldn’t quite figure out what *to* do. He tried to warn the Obama administration, but no one wanted to hear about those ghosts.

“How could he not be haunted?” Packer writes. “[A]fter a half-century excursion across the heights of American greatness, we had returned to the exact same place.”—*KJ*



Our Man: Richard Holbrooke and the End of the American Century

GEORGE PACKER, KNOFF, 608 PP., \$30, MAY 2019



Midnight in Chernobyl: The Untold Story of the World's Greatest Nuclear Disaster

ADAM HIGGINBOTHAM, SIMON & SCHUSTER, 560 PP., \$29.95, FEBRUARY 2019

Midnight in Chernobyl: The Untold Story of the World's Greatest Nuclear Disaster

IN THE LATE 1970S, at the height of the Cold War, a new city sprung up near the border of Ukraine and Belarus. Pripyat was an *atomgrad*—a nuclear city—built to house nearly 50,000 men and women working at the nearby Chernobyl power plant.

While Chernobyl is today synonymous with catastrophe, it was designed as a symbol of Soviet dominance, the largest nuclear energy plant in the world. From the very start, however, writes Adam Higginbotham in his remarkable *Midnight in Chernobyl*, the reactors were plagued by design defects and shoddy workmanship. Under pressure to meet the Kremlin’s unrealistic deadlines, engineers skimmed on materials and safety measures.

Modeling the book after Walter Lord’s minute-by-minute reconstruction of the sinking of the *Titanic*, for which Lord interviewed more than 60 contemporaries of that disaster, Higginbotham spent a decade questioning over 80 surviving firefighters, technicians, engineers, party leaders, and families from Pripyat. By digging into court documents and scientific surveys, firefighters’ logs, and contemporary periodicals, he succeeds in recreating not just the night the Chernobyl reactor exploded but the decades that led up to the explosion—and the weeks, months, and years that followed.

The result is a gripping narrative, undergirded with the forensic detail of a courtroom drama. Higginbotham meticulously traces the impact on the first responders, who succumbed, one by one, to radiation sickness and burns that appeared weeks after the accident and then never healed. He reconstructs the decision-making process that led both Soviet leaders and plant administrators initially to try to keep the meltdown under wraps, delaying the evacuation of Pripyat even as children played in now potentially radioactive sandboxes. Once a radiation cloud reached Sweden, however, it became harder for the Soviets to keep the disaster quiet.

Ultimately, Chernobyl contributed to the unraveling of the communist experiment and the Soviet Union itself, Higginbotham concludes, as well as “public confidence in nuclear energy ... [which] was finally shattered by the explosion.” ■

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KAZAKHSTAN: A MEDIATOR OF EURASIAN COOPERATION

Kazakhstan's location at the heart of the Eurasian super-continent has enabled it to develop the deft touch necessary to turn the challenges of geopolitical competition into opportunities for cooperation. The complex geopolitical situation around Kazakhstan has led to its leaders in Astana developing a balanced foreign policy and playing the role of mediator in disputes in the region and beyond. Kazakhstan advocates Eurasia-wide dialogue and partnership to deal with common threats and to benefit from common opportunities. The Astana Club geopolitical forum is quickly developing into the main platform to promote such dialogue in Eurasia.

Source: shutterstock / Harvepino

AT THE CENTER OF EURASIA

“East is East, and West is West, and never the twain shall meet,” Rudyard Kipling famously suggested. But that’s no longer true. For centuries, Europe and Asia — which together account for 60% of global population, 65% of global GDP and 55% of global trade — were treated as separate worlds. The idea was that they were too different politically, economically, socially and culturally to be thought of as one.

But times have changed. Today’s world is interconnected. Globalization has shortened distances, blurring boundaries between Europe and Asia. The two regions have made giant steps towards interconnection with each other. Kazakhstan is the point where Europe and Asia meet to form Greater Eurasia.

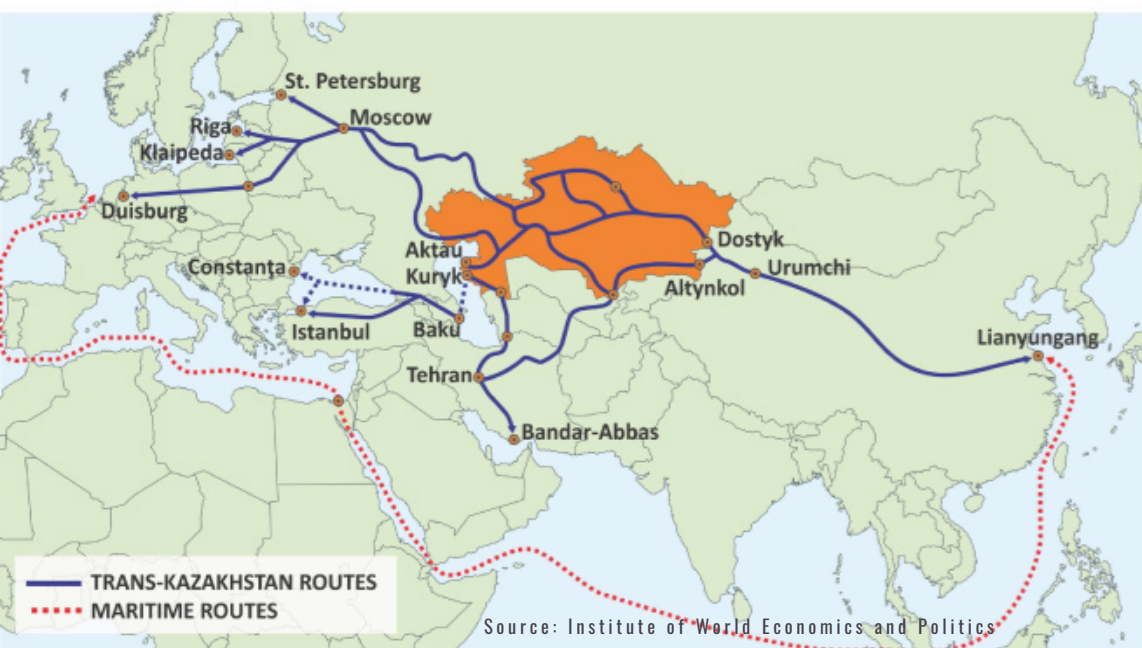
The Republic of Kazakhstan is a relatively young, rapidly developing country in Eurasia. Its size alone makes it important. It is the world’s ninth-largest country, with its territory stretching 3,000 kilometers from east to west and 2,000 kilometers from north to south. And it sits at the geographical center of the Eurasian continent. It is five times as big as France and almost twice as large as all Western European countries combined. This enormous land mass makes it difficult to classify which region Kazakhstan really belongs to. The question of whether it is European, Asian or something else still confounds experts and politicians alike.

The answer is that **Kazakhstan belongs neither to East nor West, to North nor South. It encompasses all four regions of the compass. It is a Eurasian country.**

A WINDOW OF OPPORTUNITY

Kazakhstan’s central location in Greater Eurasia offers it a world of economic opportunity.

To start with, it is a transport hub between existing and emerging centers of the world economy — Europe, China, Russia, India and Southeast Asia. Because of this, Kazakhstan is a key part of China's Belt and Road Initiative, whose goal is to boost trade across Eurasia by investing \$1 trillion in infrastructure. It was no accident that **Chinese President Xi Jinping announced the initiative in Astana in 2013. Today, two main rail and road pathways of the initiative traverse Kazakhstan, delivering Chinese goods to Europe and European goods to China.**



Kazakhstan will also play a key role in the European Union's Connectivity Strategy, under which the political and economic alliance will spend billions of dollars to make Eurasia a more coherent and interlinked continent. The Belt and Road, the Connectivity Strategy and other initiatives are helping **the two parts of Eurasia — Europe and Asia — move towards each other.** The initiatives will make Eurasia a single organism, with networks of transport infrastructure functioning as blood vessels while Kazakhstan serves as the organism's heart — the place where all the transport routes intersect.

Although Kazakhstan welcomes sweeping Eurasia-wide integration initiatives like the Belt and Road and the Connectivity Strategy, it has also been building continent-connecting roads, railways and ports on its own, partly through foreign investment. In fact, the country's ability to attract foreign investment for all kinds of projects has made headlines.

Since its independence in 1991, Kazakhstan has attracted more than \$300 billion in foreign direct investment — 75% of all the investment in Central Asia as a whole. Another telling figure is that **Kazakhstan's GDP equals that of the other Central Asia states and the Caucasus countries combined.**

Given its size, its location in the heart of Eurasia, its transport-link initiatives, its success at attracting foreign investment, and its dynamic over-all economy, Kazakhstan possesses all the prerequisites necessary for it to continue being the most important bridge between East and West on the continent.

A LOAD OF RESPONSIBILITY

Although Kazakhstan's location at the center of Eurasia is a blessing, it carries with it a lot of responsibility.

As in the past, Eurasia remains a theater of geopolitical rivalry and unresolved tensions. Unfortunately, confrontation, not cooperation, has become the dominant trend in Eurasia and beyond. One need only read the headlines. Great powers are starting trade wars and imposing sanctions. A new arms race is looming among three nuclear-club countries. The stand-off between Iran and other countries, the North Korea nuclear issue and the India-Pakistan relationship have the potential to spin out of control. Conflicts in the Middle East, Afghanistan and Ukraine are already straining the global security apparatus. Even relatively stable Europe has been experiencing transatlantic discord, migration and other challenges.

Surrounded by this complex geopolitical tapestry, Kazakhstan could easily be enveloped in any instability that occurs in Eurasia. To minimize such fallout, its leaders decided long ago on a balanced foreign policy.

At the core of this approach is building close relationships with all countries on the continent while helping to forge Eurasia-wide cooperation mechanisms. The notion of a united Eurasia, which Kazakhstan's Leader, the First President Nursultan Nazarbayev proposed 25 years ago, has been one of the central pillars of Kazakhstan's foreign policy since independence.

Kazakhstan has taken trailblazing steps to turn pan-Eurasian cooperation into a reality and continues to pour considerable energy into this effort. Its initiatives have included:

- Kazakhstan voluntarily gave up the fourth-largest nuclear arsenal in the world during its early years of independence to help make Eurasia more secure. In conjunction with this, it closed the world's largest nuclear-testing site on its soil.
- Over the past decade, Kazakhstan provided a platform for negotiations between Iran and powers wanting to prevent Iran from developing nuclear weapons. The result was the Joint Comprehensive Plan of Action, commonly known as the Iran nuclear deal.
- The Astana Process on Syria led to the creation of de-escalation zones in many parts of the war-torn country, helping bring peace to tens of thousands of ordinary Syrians.
- Kazakhstan's First President Nazarbayev played a critical role in normalizing relations between Russia and Turkey after Turkey shot down a Russian plane in 2015.

- Kazakhstan opened the first Low Enriched Uranium Bank that the International Atomic Energy Agency laid the ground for. It was a milestone in nuclear non-proliferation because it reduced the chance of more countries developing nuclear capabilities.

“ **The notion of a united Eurasia, which Kazakhstan's Leader, the First President Nursultan Nazarbayev proposed 25 years ago, has been one of the central pillars of Kazakhstan's foreign policy since independence.** ”

These achievements not only illustrate Kazakhstan's commitment to helping lead Eurasia in a peaceful direction by example, but also its commitment to playing the role of mediator on the continent. As a logical extension of these efforts, the country came up with another initiative — establishing the Astana Club as a continuing platform for continent-wide dialogue.

ASTANA CLUB — A DIALOGUE PLATFORM FOR EURASIA

The Astana Club was set up in 2015. Its founding was a response to the destruction of the security architecture that had prevailed in Europe since the break-up of the Soviet Union — but that crumbled when the West and Russia squared off over the situation in Ukraine.



Source: Institute of World Economics and Politics



Source: ITAR-TASS / Mikhail Klimentyev

At the time, trust between the two sides was dramatically declining, and the risk of geopolitical instability increasing. Not only has the tension worsened since then, but it has also spread across the entire continent.

The Astana Club's founders, the Institute of World Economics and Politics and the Foundation of the First President of Kazakhstan, decided to position the fledgling organization as a platform for constructive dialogue on the tensions and risks the Eurasian continent is struggling with. It provides government, political, economic, academic and other leaders a unique opportunity to share opinions and synchronize their watches on urgent issues, and to propose ideas for resolving them.

At the four annual meetings since 2015, dozens of high-profile guests, including heads of state and government, foreign ministers, Nobel Prize winners and renowned scholars and experts, have sought to make progress toward the goal of establishing a continental dialogue.

In 2018, the Astana Club issued a report called ***Global Risks for Eurasia*** that it plans to produce annually. It stemmed from participants' assessments of the **top 10 geopolitical risks for 2019**. The primary objective was to identify the problems that most threaten Greater Eurasia's security and economy. In addition, the experts offered recommendations for managing the risks.

The hope is that decision-makers at the national, regional and global levels will use the recommendations to come up with more balanced and productive policies. Those attending the Astana Club meeting on November 11-12 of this year will create the top 10 risks list for 2020.

The theme of this year's meeting will be ***"Security of Greater Eurasia: On the Way to a New Architecture."*** It is particularly timely, given that the former security architecture has collapsed, and it is unclear who will assume responsibility for constructing a new one. Unfortunately, no one has yet come up with a vision of a new system. Against this backdrop, Kazakhstan is calling for the world to work more diligently on a new anti-nuclear architecture in particular. The Astana Club could well be the geopolitical forum that generates the ideas that lead to a new global security system.

The year 2020 will mark the 45th anniversary of the Helsinki Final Act — the agreement that established the post-Cold War security structure in Europe. **The world needs a new, expanded version of the agreement. This time it should cover not just Europe, but all of Eurasia.** In this regard, Astana is becoming an equidistant and neutral place, where a consensus on future security architecture of Eurasia can be achieved.

Poland Goes Global

For the past two decades, the economy of Poland has flourished and earned the nickname of the European Tiger.

Poland has grown consistently since the beginning of the post-socialist transition in 1989 and was the only EU economy to avoid a recession in 2008. Moreover, according to the World Bank, the GDP of Poland is estimated to grow by 3.7% in 2019. With an unemployment rate slightly above 4%, Poland has the second-lowest rate in the 28-member European Union (EU). "This upward adjustment in our forecasts is driven by the positive signs coming from the performance of

the Polish economy so far. There has been positive economic momentum both in Poland and in its largest trading partners. In addition to this, government consumption is growing rapidly, and we

 **POLAND**
For our freedom and yours

38 million Population
35th most populous country on earth

16 Provinces
Capital: Warsaw
Currency: Zloty (PLN)
Languages: Polish

EUROPE



European economies, including Germany. Protectionism is on the rise around the globe, and more and more employers in Poland are complaining about a shortage of labor. All of this is likely to lead to a deceleration of economic growth in Poland."

Given its high quality of human capital, relatively high level of productivity combined with low wages, macroeconomic stability, improving infrastructure, open investment climate, Poland's economy continues to look bright.

are seeing an improvement in private investments", stated Carlos Piñerúa, World Bank Country Manager for Poland and the Baltic States. "At the same time, we see a slowdown in Western

29th Economic Forum

KRYNICA, POLAND, SEPTEMBER 3-5, 2019



THE EUROPE OF TOMORROW. 'STRONG' MEANING WHAT?'



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Economic Forum in Krynica Polish Davos

and the questions about the future of Europe

The largest and most important event of its type in Central and Eastern Europe is now almost 30 years old. The Economic Forum in Krynica is always attended by presidents and prime ministers, as well as the largest organizations from around the world. The Forum will take place between 3rd and 5th September of 2019 with the motto: "Europe of Tomorrow. Strong meaning what?"

Amongst the past attendees of the Forum are names such as: Donald Tusk, Lech Walesa, Jose Manuel Barroso, Vaclav Havel, Micheil Saakashvili as well as Carlo D'Asaro Biondo (Google), Richard Allan (Facebook) and Steven Harman (Amazon).

Many of the issues raised during the Economic Forum concern the most important regional and global processes. Every year, the number of the Forum's participants keeps on growing - nowadays you just have to be in Krynica! Last year, the Economic Forum was visited by more than 4,500 guests and over 600 journalists from 60 different countries. For almost 30 years the Krynica Forum has been creating a safe and open space for discussions on how to deal with threats that are largely universal to the world. "Krynica is people" - says Zygmunt Berdychowski - originator of Economic Forum. "And these people have the power to change the world".

IT SOLUTIONS FROM POLAND

“*Poland is an attractive business and IT-outsourcing location. The one of the largest and most dynamic economies in the European Union has the highly educated people with very good language skills, the labour costs are much lower when compared to US or Western Union and is easy travelling distance*”

How do you view Poland and the IT market in comparison to other places in the world?

Poland is not only a beautiful country and an attractive tourist destination but also a quasi “silicon valley” of Europe. It has excellent engineers and programmers, and apart from that, it offers competitive prices. Polish programmers are considered to be among the best in the world.

What kind of business does ABSOLUT Systems do and what is your competitive advantage against other companies?

In the era of digital transformation and disruptive innovation, the demand for high-quality IT services is growing. Companies want to build a lasting competitive advantage and optimize costs. Time and promptness of implementation on the market are essential. That is why at ABSOLUT Systems we have created an innovative tool which substantially improves quality of programming, thanks to which our services are attractive and the

delivery time of high-quality customized software to our customers is much shorter.

What services do you offer?

ABSOLUT Systems is a customer driven software company and digital transformation specialist. For our international customers we offer high-quality programming services and develop tailored software (that is, mobile app [Android, iOS] and web applications, IOT projects, complex enterprise solutions, b2b platforms etc). Our specialty is designing, delivering and supporting IT solutions that help our clients grow.

What message would you like to pass to potential business partners?

In my opinion, both Absolut Systems as a company and Poland as a country are excellent business partners with whom one can do successful business retaining mutual benefits. If you are looking for high-quality customized software/IT solutions and competitive prices, you are welcome to do business with us!



Krzysztof Pruszyński - Owner and President of Blachy Pruszyński

Our market continues to enjoy dynamic growth

Blachy Pruszyński is the industry's leader. Can you remind us, what percentage of the steel roofing and wall panels market in Poland is controlled by the Blachy Pruszyński Company?

The market we are in is well-organized and relatively stable. We work in two major areas: large-scale commercial construction (e.g. stores, warehouses, distribution centers and shopping malls) and single-family residential construction. We control over 50 percent of the former and about one fifth of the latter.

What type of clients buy your products?

In the single-family residential construction, customers buy Blachy Pruszyński products through a network of specialized professional distributors. In the case of commercial construction, we work with investors, general contractors and subcontractors. In recent

years, we have worked on a number of important projects, including the Mercedes manufacturing plant in Jawor, Volkswagen factory in Wrzesnia and expansion of the Warsaw Chopin Airport. You can find our roofing and wall panels on a number of sports centers currently being built in Poland, as well as on shopping malls or distribution centers. By the way, with regard to the last one I mentioned, there is a huge surge in demand. In 2018, we saw a 50% increase in our sales for the distribution industry.

Blachy Pruszyński is an excellent example that Poland can be a starting point for regional growth

That's true. About a quarter of our income comes from exports. We have our companies in Ukraine, Hungary, Romania and the Czech Republic. In recent years, we have also been trying to enter Western European markets in France, Germany and Scandinavia. We are also interested in expanding into more distant markets, like Africa and South America.

Blachy Pruszyński is also able to share its success with others. Your Company is known for its charitable giving. Can you tell us about that?

For many years we have been supporting a number of initiatives working to improve the lives of people in need. Currently we focus on supporting children, especially ill ones. We are in the design stages of the construction of a learning center for disabled children in Pruszkow. The funds for the project will be provided by our company in partnership with the local government. Last year we made a large financial contribution to a hospice for children in Warsaw. Charitable donations are one of the pillars of our socially responsible policy at the Blachy Pruszyński Company.



KATARZYNA KOWALUK-TOSZEK

- a graduate of Vienna University of Economics and Business (Business Administration in International Management&Marketing and Marketing Management) and Koźminski University in Warsaw (Management Strategies and Quality Management);

- a consultant, owner of ABSOLUT Systems Co. Ltd. offering customized software and IT solutions, with 10 years' experience in designing digital and customer solutions;



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In today's ever-changing business environment, it's become increasingly difficult for companies to find a sustainable, competitive advantage.

Product innovation is quickly copied and commoditized. This new age demands a bold, new approach with a fresh perspective and creative thinking.

"The building and keeping of trust in a brand is vital to global expansion," stated Milena Golda, president of MGA, Mag Press Agency. "Nowadays, losing trust can happen quickly and it may difficult to rebuild, if at all."

Milena Golda is no stranger to the international scene. For more than 20 years, she has expertly guided over 400 brands in the public and private sector.

Whether it's a company that seeks to substantially increase their visibility in a foreign market or assisting an actual country in regaining the trust of international investors, there's not much that she and her world-class team haven't experienced while working with clients.

"I have just as much fun working with startups as I do with multinational companies or countries," states Golda. "The creative process is virtually limitless."

A recent example of a startup that has turned to MGA, Mag Press Agency for assistance is ELA PIORUN, which has quickly positioned itself among leading Polish fashion brands.

Ela Piorun has already earned multiple awards and participated in successful fashion shows. The brand has now the First Lady of Poland, Agata Kornhauser, as a regular client.

Of course, every client is different. Having a basic cookie-cutter approach can do more harm than good as you expand globally.

With each global market presenting its challenges, unintended consequences can hurt a brand's bottom line. For example, a client's brand message in Greece may be substantially different from the

United States. A brand must be aware of cross-cultural issues, since improper messaging can be perceived as insensitive or even disrespectful.

Golda wisely includes local collaborators to ensure laser-focused accuracy with the brand's message. Brands can save significant time and money once the proper branding strategy is in place.

While designing custom solutions for international media, social media promotion, trade shows

*"Brands must now
think global
and act locally."*

Milena Golda

and conferences, the brand message must be consistent.

Golda prides herself with working with brands from nearly 50 countries across multiple industry sectors to provide international business promotion, marketing, and development solutions; ranging from global tactical issues requiring immediate resolution to high-level, longer-term international strategic planning for senior managers.

Raised by Jozef and Cecylia Golda in Poland, Golda stays very grounded while working with multinational corporations and government officials.

"They installed a strong work ethic that permeates through our entire team," stated Golda. "While we do have what some may say are flashy clients, they all trust us to increase their visibility the right way. My parents made sure that my head didn't get too big, regardless of having clients with very recognizable names."

As co-founder of CEOWORLD Magazine, Golda established ties with many of the world's leading media. She got an award from Businesswoman and Life Magazine as a Leader of Promoting Poland



Milena Golda

President MGA and Mag Press Agency

globally in 2018 and Businesswoman of 2019 Award from the National Certification Office in Poland.

Milena Golda is a Ph.D. graduate from University Complutense of Madrid, Graduate of Diplomatic Academy of Vienna, MA in International Relations from Warsaw University, and a grant from United Nations Program.

Even though the company MGA, Mag Press Agency has offices in various countries Golda choose to keep the main office in Warsaw, Poland. This location provides her access to a talented workforce, travel connectivity, easy access to international markets and clients.

Golda has a contact list that rivals many of the world's elite and strong connections with leading media companies. Clients have benefited from her connections and experience. Through her strong relationships with clients, media, or world leaders, Golda can help assist companies in expanding globally with confidence. If you feel that you're ready to increase your visibility and brand awareness globally, contact MGA, Mag Press Agency.



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MALTA

Valletta, the capital city of Malta

Futureproofing the islands' economic boom

The Maltese government's focus on macroeconomic stability, diversity and innovation has put the islands at the global forefront of numerous traditional and emerging industries

The small Mediterranean archipelago is one of Europe's best performing economies — the EU estimates that its gross domestic product (GDP) grew by 6.2% in 2018 and a further increase of 5.3% is expected in 2019.

"Malta's success came because we identified the main drags on the economy and confronted them," says Minister for Finance Edward Scicluna. This resulted in numerous structural reforms, such as shifting the energy mix away from oil, introducing free childcare for all and shifting the tax burden from direct to indirect taxation. As a result, not only is the economy booming but Malta has had a budget surplus for three years in a row,

notes Scicluna: "Unemployment rates are also now among the lowest in the EU and the national debt has seen a significant decline."

Macroeconomic stability is one factor attracting increasing international businesses to the islands. Other draws include a first-rate business climate, good infrastructure, competitive labor costs, EU membership, a strategic location that makes it a gateway to Europe and Africa, and the use of English.

In addition, "Malta's small size and reliance on smart manpower due to lack of natural resources pushes it to the limits of economic diversification. No new sector is overlooked," says Scicluna. Traditionally renowned as a leading

player in financial services, advanced manufacturing, the maritime sector, logistics and tourism, this focus on diversification has helped turn the country into a hub for emerging innovative and high-tech industries such as blockchain and online gaming.

A key to Malta's position at the forefront of these sectors is its innovative and rapid approach to introducing legislation. For example, in 2018 it launched the world's first regulatory framework for distributed ledger technologies.

The new framework will help Malta build on an already very strong financial services sector that includes the world's 17th-soundest banking system, according to the World Economic Forum.



Edward Scicluna
Minister for Finance

edly increasing our market share. Our rebranding reflects our renewed vision — we want to build a new future with our clients, backed by a high level of service, and the ability to offer innovative products

"Malta is very much on the international investor radar. It has an open, diversified and growing economy."

Michael Collis, CEO and Managing Director, BNF Bank

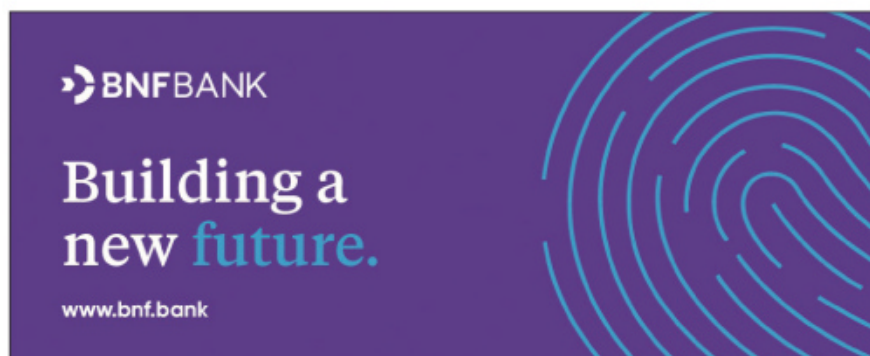
Michael Collis, CEO and managing director of BNF Bank, gives two reasons for this soundness: "Malta has a robust regulatory environment and banks are conservative. Even during the global financial crisis, they were resilient." BNF Bank is a shining example of this. Originally called Banif Bank, it established operations in Malta 10 years ago and its activities are split 50:50 between retail and corporate banking.

Since 2016, when Qatar's Al Faisal Holding acquired majority shares in the bank, "Our capital base has increased from \$28 million to \$96 million and we are rap-

and solutions," says Collis.

"Our capital increase will enable us to increase our share of the larger-corporate sector, tap into new markets and further internationalize the bank," he says, noting that it already has excellent relations with bigger U.S. institutions, such as Bank of New York Mellon, and is actively involved in helping businesses move to Malta.

"We are seeing a great deal of investment coming in at the moment and Malta is very much on the international investor radar," he states; "It has an open, diversified and growing economy — Malta has a lot to offer."



Why Malta is ahead of the game in blockchain and cryptocurrencies

Malta's transformation into "Blockchain Island" is founded on an innovative approach to legislation and regulation that builds on its success in creating a first-class environment for gaming

2018 saw the world's media hail Malta as "Blockchain Island" when it introduced the first legislative framework for distributed ledger technologies (DLTs), blockchain and cryptocurrencies.

"Malta has become a leading innovator in these technologies because we see their huge potential and the likelihood of them changing the landscape for various industries," explains Silvio Schembri, Parliamentary Secretary for Financial Services, Digital Economy and Innovation.

The government is committed to embracing the disruptive technologies and putting Malta at the epicenter of their advance, he says: "We have laid the foundations for this technological revolution to flourish. But our aim is not just to attract these technologies. It is to create a conducive environment where innovation can take place in legal certainty and with peace of mind that any legislative changes will not occur without considering industry concerns."

Indeed, the new framework consisting of three acts was developed after detailed consultation with all stakeholders. "The acts provide legal certainty and will help achieve stability, market integrity and consumer protection," says Schembri; "We like to think we are showing the world the way forward."

Malta's track record in creating innovative and effective legislation that has allowed highly specialized industries, such as gaming, to thrive has already given two of



Silvio Schembri
Parliamentary Secretary for Financial Services,
Digital Economy and Innovation

the world's largest cryptocurrency exchanges — Hong Kong's OKE and Binance — the confidence to start operating in the country. "The response has been tremendous and produced a ripple effect among other crypto and block-

Regulators need to ensure operators are compliant but they also need to be innovative."

Heathcliff Farrugia, CEO, Malta Gaming Authority

chain-based companies," he notes.

"Thanks to Malta's diversified economy, it offers an attractive ecosystem where these firms can benefit from synergies with, for example, our financial and gaming sectors," says Schembri.

Heathcliff Farrugia, CEO of the Malta Gaming Authority (MGA), confirms that the islands' gaming companies are increasingly interacting with the disruptive technologies: "They are looking at cryptocurrency as a payment solution, for instance, blockchain for automating payments and



Malta has become a global frontrunner in distributed ledger technologies

random number generation, and DLT for know-your-customer due diligence."

The MGA is the independent regulator for online and land-based gaming in Malta, and is responsible for implementing the

of the largest players in the industry and it is especially tempting for start-ups. Our biggest advantage is that we were the first to regulate gaming 14 years ago, so everything is here: top lawyers, accounting firms, specialist services and government support," Farrugia states.

Over those years, the sector has evolved from casinos to high-tech online gaming. To take account of its development, Malta updated its gaming legislation in 2018. The new legislation has also improved the MGA's ability to carry out its regulatory activities and simplified bureaucracy for operators.

Farrugia believes it is vital for the MGA to remain at the cutting-edge of regulation: "Regulators need to ensure operators are compliant but they also need to be innovative. When you have proper regulations, you can start controlling, understanding and supervising new sectors. For the MGA, innovation is not an option, it is a must."



GAMING MALTA

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GamingMalta is an independent non-profit foundation set up by the Government of Malta and the Malta Gaming Authority (MGA). Tasked with the remit of promoting Malta as a center of excellence in the digital and remote gaming sector globally, it is also responsible for liaising with the local relevant authorities to improve Malta's attractiveness as a jurisdiction and enhance the ecosystem surrounding the gaming industry.



iGaming
Video Gaming
Esports

Malta's financial services regulator leads — setting an example for the rest of Europe

The Malta Financial Services Authority is reinventing itself and investing in innovation to take account of new technologies

The Malta Financial Services Authority — MFSA — is the single regulator for all financial service activities in Malta. It is also responsible for housing the country's companies' registry. Joseph Cuschieri, a man who brings to the table extensive experience in economic regulation in both the public and private sector, was appointed as its new CEO in 2018.

Cuschieri plans to transform the organization into an internationally recognized world-class regulator. "Blockchain, fintech and the technological transformation currently defining Malta's financial industry are going to have a massive impact on the financial services sector as we know it today. One of my primary objectives is to create a new



Joseph Cuschieri
CEO, Malta Financial Services Authority (MFSA)

vision for the MFSA, making technology mission-critical for our organization," states Cuschieri.

One of the challenges the MFSA faces is transforming Malta's traditional financial services sector

in line with the new technologies. Blockchain, for example, is revolutionizing the way service platforms interact with end users. Cuschieri explains: "Financial technology and automation will empower consumers. For regulators, this presents new challenges because up till now we have regulated and supervised the sector in the traditional way. Moving forward within such a technologically dynamic environment, it will be all about the stringent standards we have set for ourselves."

The government sponsored the Delta Summit in 2018, the first event of its kind, to showcase Malta's achievements in the blockchain space. The summit surpassed all expectations. Cuschieri, who was on the panel at the event, believes that: "The regulatory framework, which puts legal certainty on the technology surrounding blockchain, is ensuring that Malta becomes a hub not just for established financial institutions but also for start-ups in blockchain, gaming companies and service sectors, like health, tourism and support services."

The MFSA recently announced a three-year plan that aims to ensure

it will evolve into one of the top five financial regulators in Europe. The groundbreaking regulatory technology being implemented under Cuschieri's leadership, coupled with Malta's undisputed seniority in the industry, looks set to put Malta way ahead of the competition.

Reactions to Malta's regulation of distributed ledger technology and cryptoassets in the international community have been varied. Some of the key players in the blockchain industry, for example France and Switzerland, have taken a practical approach that follows Malta's lead. Other countries, like the US, have made their concerns clear, with worries centered around the risks of money laundering.

Cuschieri is convinced the European Union will come up with a regulatory framework soon. His view is that: "As a jurisdiction, it is not up to us to state whether virtual currencies are a good or bad option. What we are doing is implementing a framework — introducing regulations and legislation which will ensure maximum transparency and protection for consumers, while safeguarding the integrity of our financial system here in Malta."

Leading the world in the regulation of virtual financial assets

In November 2018, Malta became the first country in Europe to introduce a holistic package of legislation covering distributed ledger technologies, such as blockchain, and cryptoassets. The new framework has received "very positive feed back," says Joseph Cuschieri, CEO of the Malta Financial Services Authority (MFSA), who was a member of the task force that developed the laws. "It was an area that was unregulated and we wanted to put a framework in place which protects consumers and the financial integrity of our system," he explains.

Providing legal certainty, investor protection, market integrity and financial stability, all while demonstrating support for innovation and technology, the regulations should help "make Malta the hub for blockchain," states Cuschieri. Implementing the framework is also the first step in the MFSA's vision to become internationally recognized as a regulator of excellence in fintech.

Malta's financial services regulator is highly experienced — at the end of 2017,



it was supervising and ensuring the compliance of over 2,180 operators and funds with an aggregate net asset value of €10.6 billion. But the regulation of fintech brings new challenges, he says: "The way you govern the sector has to change and MFSA needs to be a leader in new technology in order to administer and supervise the sector, to show leadership and to set an example. If you are legislating, professing and pontificating about blockchain, fintech and cryptocurrencies, you can't be using technology from the '90s yourself."

Already known for its high standards, in the new regulations, "MFSA has raised the bar in terms of the standards we impose. Some in the industry think they are too high but there are inherent risks in cryptoassets and we wanted to make sure they were mitigated. We did this by raising the bar in both technical standards and licensing requirements — but we haven't made it impossible," stresses Cuschieri.

Most of the regulatory measures for obtaining licenses to operate in Malta's new cryptoasset space concern consumer protection and platform integrity, while also making sure anti-money-laundering procedures are applied and that Malta's traditional financial system is not contravened.

Cuschieri is convinced that the traditional financial services sector's interaction with users will be transformed by new technologies and that Malta is ideal for companies operating in these disruptive industries: "Malta is outstanding when it comes to technology and innovation. We offer the right environment, the right incentives and the right support for companies. It's the perfect place."



Gozo's historic Cittadella has been recently restored

Gozo means business

Malta's second-biggest island is value-added, idyllic and focused on economic and environmental sustainability

Gozo has been one of the best performing eurozone economies for five years. It benefits from Malta's growth in tertiary services and tourism, but its approach to investment attraction is focused on high-value niches fitting its development goals.

Gozo is idyllic. With 7,000 years of history, it is pursuing an ecological development brand for tourism and residential services that builds

on its natural and architectural assets, and agricultural and marine traditions. Its unspoiled, inspiring and tranquil beauty provide the ideal getaway, while kayaking, climbing and diving are enjoyed for most of the year, thanks to its mild climate.

Gozo is innovative and distinctive. It focuses on longer-stay tourists seeking immersive experiences and boutique accommodation. The



Gozo: I live, I work, I play

recent restoration of the historic Cittadella is a shining example of sustainable regeneration. Barts and the London School of Medicine and Dentistry are establishing a medical school in Gozo, and Steward Healthcare is developing a medical hub. Thynk Software and RS2 Software are examples of successful IT companies in Gozo that are connecting efficiently with the world.

Gozo is connected. It is an hour from Malta International Airport and connectivity is being enhanced though investments in maritime, digital and road infrastructures.

Gozo is well resourced. Its population is ambitious, well-educated

and embraces modern industries. Businesses benefit from a vibrant ecosystem and favorable incentives, and a new entity for regional development will provide a further boost.

Gozo looks to the future with optimism, eager to forge partnerships with businesses that can grow in a way that is consistent with its long-term vision of a value-added and idyllic destination focused on economic and environmental sustainability.



The exquisite island of Gozo is building connections with the world's tourists and businesses

Justyne Caruana, Minister for Gozo, explains how Malta's second-largest island is developing sustainably.

PR Half of Gozo's gross domestic product depends on tourism. How are you promoting Gozo internationally?

JC We are trying to promote Gozo as a distinct destination from Malta. Traditionally, people came to Malta and then by chance discovered Gozo. We are working to challenge this — and we are succeeding because people now want to come specifically to Gozo.

We are promoting Gozo's distinctive package. If you take the time to look around, you will see the natural beauty of the area. Apart from its environmental attractions, we have a very strong cultural heritage; for example, the Megalithic is the world's oldest prehistoric temple — much older than the



Justyne Caruana
Minister for Gozo

U.K.'s Stonehenge. Today, I am opening an exhibition, which includes a work by Salvatore Busuttill that is one of the finest artistic pieces on the island. We were very fortunate to acquire it for Gozo's museum.

There are various other attractions on the island that we are working to promote, such as Roman remains and a Phoenician shipwreck. In addition, Gozo faced a huge challenge — its tourism

was restricted to the summer season. The ministry worked hard to change this by creating a year-round cultural calendar with numerous events and now there is tourism throughout the year.

PR A mega project has been announced — building a tunnel to link Malta and Gozo. How will this contribute to growth?

JC We are now in a position to establish timeframes for the project, which will be based around a seven-year program. At the moment, the connection is via ferry. When the tunnel is operational, we are expecting huge changes and the influx of visitors will increase greatly.

There will be positive and negative impacts. One of the positives will be the mobility of our people but it will also increase vehicle traffic and our carbon footprint. We have already started work on preventing the negative byproducts of this. Part of our decarbonization strategy is to place a park-and-ride at the tunnel. This will use electric buses

to move people once they have parked their vehicles and is in line with Gozo's status as an ecological island.

PR You have said there are not enough contractors in Gozo but there is increasing international interest. What incentives are there for businesses to set up in Gozo?

JC Our government is very open and always just a phone call away. If a new business is opening or relocating here, we have business packages on offer. If you need to hire an employee, we will give you €6,000 to support you in this when you provide an employment contract for at least three years. This is just one way we encourage businesses to come to Gozo and employ local people.

We are trying to turn the ministry into a one-stop shop. So, if you come here and you want to get things moving fast, you will not need to go from one place to another. In business, time is money, so we make business in Gozo worth your while.

Ministry for Gozo

St. Francis Square, Victoria, Gozo, Malta | Tel: +356 2210 0000 | ministryforgozo@gov.mt | www.mgoz.gov.mt



MINISTRY FOR GOZO

Making Malta a better place to live, work and invest

Transparent, fair, efficient and innovative planning services provide a balanced and sustainable environment in Malta

Malta is seeing unprecedented growth in construction projects, says Johann Buttigieg, executive chairman of the country's Planning Authority, the entity responsible for regulating land use on the islands. "Due to the huge government initiatives for foreign investors there is enormous investment coming in and every week companies are opening offices," he says.

This influx creates a need for more housing, schools, education and hospitals, for example. "The government is also investing over €100 million a year in infrastructure," notes Buttigieg. As a result, the authority received over 11,300 planning applications in 2017, a rise of 24% on 2016, and in 2018 it approved new projects worth over €500 million.

The Planning Authority's major role is to provide transparent and



Johann Buttigieg
Executive Chairman, Planning Authority

fair planning services that balance the sustainability of Malta's environment with the changing needs of the population and investors. "We are extremely careful about controlling the quality of developments. However, a planning permit is normally granted promptly — there is a time limit of 100 days

— and we are available to meet any investor at very short notice," he states.

In order to carry on fulfilling its responsibilities effectively and efficiently in a period of rapid growth, the entity has recently upgraded and modernized its internal processes and technologies, and introduced a new online platform. It is also updating its policy framework. "We have forged ahead to a much higher level. Now, we must push Malta's boom forward but control its negative effects," says Buttigieg.

Planning for the future

In line with Malta, the Planning Authority is focused on being a leader in innovation and it is currently coordinating 10 EU-funded research projects worth over €7 million in topics that include green infrastructure, coastal management and smart cities.

Spacial information is another key research priority. The authority has recently launched new

digital mapping services and is implementing an ambitious national information project that will make Malta a global frontrunner in geo-spatial technology. Part of this project will see the creation of 3D maps of the islands that extend up to a nautical mile from the coastline, he says: "We are looking to progress and not only at offering services for land-based industries but also underwater. We expect to invest a further €40 million in this."

The authority is also researching best international practices for managing disused land and expanding its strategy for smart cities. "We are moving towards developing smart cities that are integrated into our infrastructure. Perhaps Malta will set the bar and be the first in Europe to run as a smart country," he suggests. Buttigieg believes that new planning advances such as this will help attract even more investors and stresses that the Planning Authority is "ready to deliver — whenever, wherever."

Better planning
for today and tomorrow



On the road to quality transportation

With excellent airport and seaport facilities in place, Dr. Ian Borg, Minister for Transport, Infrastructure and Capital Projects, is focusing his attention on Malta's roads

PR How are you ensuring Malta's economic success continues?

IB The various decisions we have made as a government have ensured the creation of a healthy financial environment for local and foreign investors, which has also attracted foreign direct investment. It is clear that Malta and its economy are growing steadily. But for every country with a growing economy, it is necessary to have sound and high-quality infrastructure. We have achieved extraordinary results — but not because of our infrastructure.

So this is what we are doing now — we are focusing on upgrading our country's infrastructure, our road network. This government has committed itself to major infrastructural road projects and also to the upgrading of the whole residential road network. We are investing almost \$800 million to enable our country to finally get a residential road network that caters for today's needs, while we are implementing other medium and long-term projects on our road arteries and junctions. This is the priority of our government's program.

PR What impact does Malta's size have on the ease of doing business?

IB I am convinced that being part of a small community, like Malta, provides the opportunity to be nearer to the people, to listen to people and to their real needs, and to be able to take action to respond promptly and efficiently to them.

The same applies to foreign investors; we are only a phone call away. Being a small country makes it easier to make things happen faster — meeting companies that are willing to invest in our country is a normal part of our course of work and I regularly receive requests for meetings with companies looking to invest. This agility can only be found in small administrations.

This government believes in strong and healthy public and non-governmental organization participation. We are willing to put ideas on the table and discuss, and that is what we are doing. Be it for land administration, transport planning, connecting the islands of Malta and Gozo, or better planning, for example.

PR Can you comment on the government's public and private transport initiatives?

IB This is a complex issue — there is no single solution for such a densely pop-



The government has committed itself to major road infrastructure projects

ulated island state. Our public transport is carrying more than 3.5 million passengers a year. We have to improve and increase this capacity, while at the same time working to create further transport systems. We are encouraging our authorities to do more, especially in marine transportation, for example, the ferries. We have a thriving ferry system between Cottonera, Valletta and Sliema. 62,000 passengers were carried on our ferries in 2012 — 1.6 million was the final figure for 2018.

It is imperative that we combine our advances with e-motor vehicles. However, we have to be realistic about our culture — most Maltese people like their cars. We need to offer incentives, which we started doing a couple of years ago. We are currently providing free public transport to young people and offering incentives for switching to cleaner transport, such as no registration tax and up to almost \$7,900 when people switch to an electric vehicle.

We are investing in the infrastructure that supports electric vehicles but I still believe that the electrification of the transport system is a market-driven scenario. People are still waiting for electric vehicles to have improved designs, longer-lasting batteries and lower prices. So, it is not only about the government giving out incentives, it is also about the automobile industry doing its part. And products are already improving.

PR In 2018 more than \$67 million was spent on road infrastructure, which will rise to about \$113 million in 2019, as part of a seven-year



Dr. Ian Borg

Minister for Transport, Infrastructure and Capital Projects

plan. Can you provide more insight into this strategy?

IB We would like to resurface all our roads, especially the residential ones. Local councils had responsibility for their upkeep but were not equipped with the right resources. The government decided to take on the responsibility, share the burden, and set up an infrastructure agency to carry out the works within seven years.

We have achieved considerable economic success, tourism is booming, and people want to work and live in Malta. It is, therefore, imperative that we ensure that no part of the island is neglected. For this reason, the government is actively intervening to improve our infrastructure. We strongly believe that infrastructure is one of the pillars of any country's economy and so we are committed towards an improved infrastructure for our country for the benefit of our communities.

Malta: Facts and figures



The islands

The Mediterranean archipelago of Malta is made up of three islands: Malta, Gozo and Comino



Surface area

122 square miles



Population

475,700



Capital city

Valletta, the European Capital of Culture, 2018



GDP growth

5.3% is predicted for 2019



Currency

Euro



Unemployment rate

3.8%



Official languages

English and Maltese

Unbreakable

The hidden history of the Soviets' impenetrable espionage machine.

By Anna Borshchevskaya

I**N THE EARLY DAYS OF THE COLD WAR**, the Soviet Union needed a foolproof way to encrypt the messages it sent to its allies. This was a daunting task: The previous pinnacle in cryptography, the German Enigma machine, had been cracked. And not only would any new communications system have to be unbreakable, but it would also have to work across languages as diverse as Polish, Hungarian, German, Romanian, Spanish, and, of course, Russian. The Soviet Union needed a technological wonder.

Enter the Fialka—Russian for “violet.” Created at the end of World War II and introduced in 1956, the Fialka replaced the Albatross, a Soviet cipher machine that was itself more complex than the Enigma. By the 1970s, Fialka encryption machines had been widely adopted by Warsaw Pact and other communist nations, and they remained in use until the early 1990s.

Yet the Fialka's existence remained a well-kept secret. Russia did not declassify information about the machine until 2005. To this day, gathering details on the device remains a challenge. But the average American can finally see one in person: A specimen went on display this year at the new KGB Espionage Museum in New York City. The model is among the first of the machines ever to be shown anywhere.

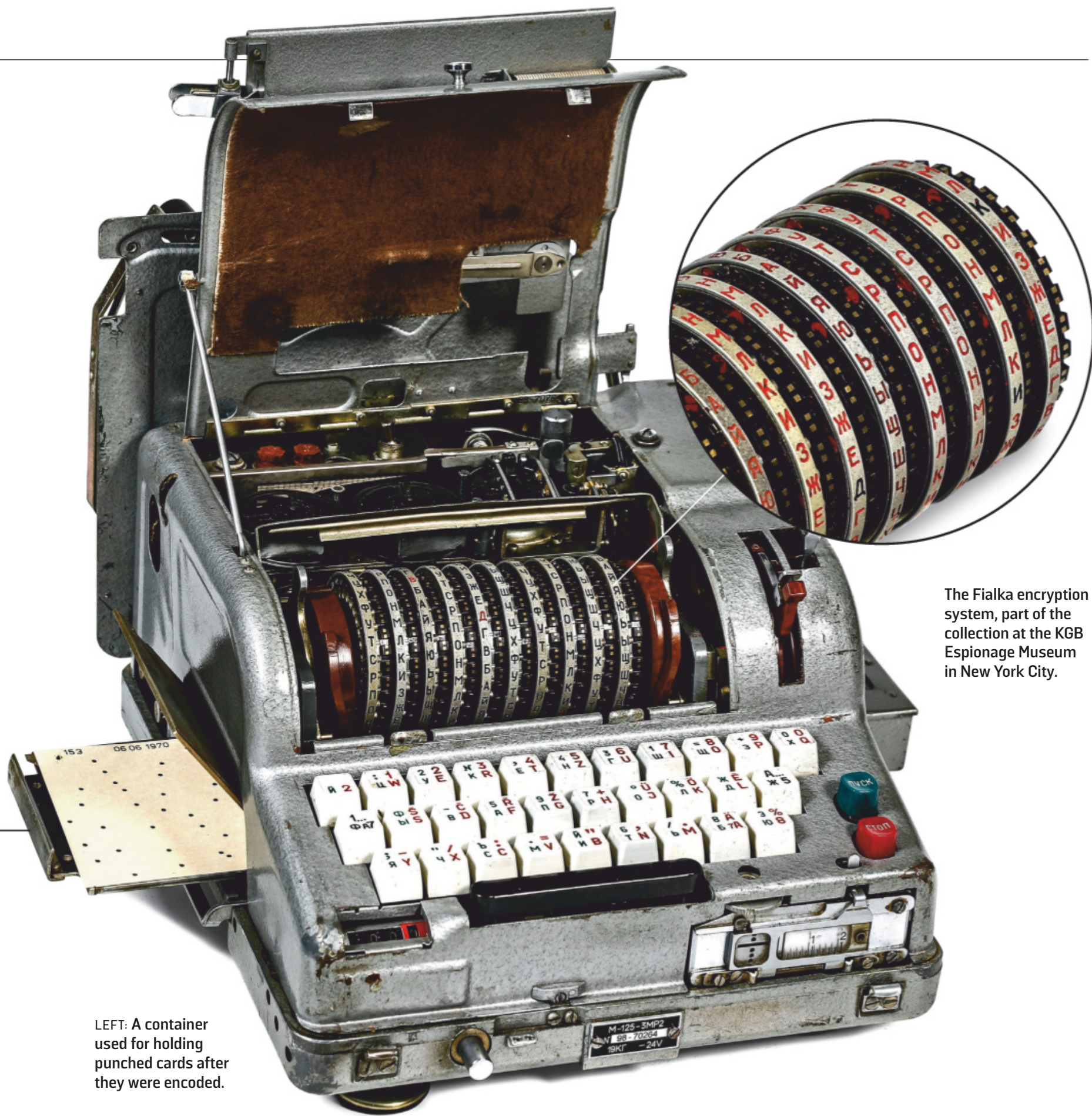
The Fialka's encryption methods were advanced, but the basic technology was old. Like the Enigma, it was an electromechanical wheel-based cipher machine. Its keyboard resembled a typewriter, but its body looked more like a very advanced adding machine, equipped with a series of rotors

that swapped in letters for other letters as the typist hit keys. The machine encoded a message, and then a commutator, or electrical switch, further randomized the letters. That message was punched as holes into a ticker tape, and the tape could then be fed into a sister machine and quickly decoded. Primarily used by the military, the Fialka was so secret that soldiers trained in using it reportedly had to sign special contracts specifying that they wouldn't travel abroad for two years.

The Fialka overcame the Enigma's shortcomings: The encryption on the Russian machine was more secure because it used 10 rotating wheels of letters, compared with the Enigma's three or four. Each rotation enabled the Fialka to encrypt each letter individually. All in all, the machine could produce more than 500 trillion codes.

The Soviets' encryption was so advanced, according to Stephen Budiansky, who examined the U.S. National Security Agency's efforts to crack Soviet ciphers in his book *Code*





The Fialka encryption system, part of the collection at the KGB Espionage Museum in New York City.

LEFT: A container used for holding punched cards after they were encoded.

Warriors, that it could be broken only by human error, theft, or defiance. “It has always been easier to make a good code than to break a good code,” he said. “The significant breaks that both [the United States] and the Soviets made throughout the Cold War in each other’s systems came either through ‘direct’ means,” such as stealing key lists of codes, “or blunders in procedures that gave away crucial details

about the internal scrambling patterns of the coding systems.”

Although tools such as the Fialka have become kitsch, the stuff of spycraft collector websites, secrecy isn’t going anywhere. Paranoid thinking increasingly permeates the Kremlin, and rather than acknowledge history and face the future, the current Russian government encourages celebration of a past in which its people were suppressed, secrecy was

championed, and fear nurtured.

These days, the craft of keeping secrets has changed. The ciphers of the past have been trumped by an encrypted device far more powerful than anything the Cold Warriors could have dreamed of: the smartphone. ■

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