



The Resilience Doctrine

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In a Time of Crisis

In the past year, we have witnessed a global emergency, with the world experiencing the [worst economic meltdown](#) since the 1930s. This crisis will not be a one-off. Over the next 20 years, we will be confronted with a series of systemic and interlocking risks that will cross national borders with alacrity. As a result, the divide between domestic and international policy will largely be erased.

To carve out a strategic response to these risks requires huge effort. Our assumptions about the world were formed in another age and are ill-suited to contemporary challenges. The international system, meanwhile, is inveterately short-term in its outlook, national governments are myopic and complacent, and the media is unforgiving towards politicians who fail to conform to the dictates of an increasingly frenetic news cycle.

Leaders therefore need a new lens through which they can view the task of creating security in the 21st century. The projection of power, and attempts to balance the power of others, no longer provides a useful perspective. Instead, the concept of *resilience* should be at the heart of a new doctrine for managing transnational risk and [global instability](#).

Resilience offers a guiding principle for informing strategy and animating alliances. It also provides a yardstick for measuring success. At present, much of what governments do internationally inadvertently increases vulnerability. This must change if globalization is to be saved from itself.

Abundance and Scarcity

We live in a world that is dynamic, but unstable. Globalization has created dense and diverse networks that share properties common to all complex systems. They are far from equilibrium, display emergent behavior, and are prone to unexpected transitions. But yet [we are trained](#) to see balance where there is none and to plan for a future that looks much like the past.

Such a future will never exist. The next 20 years will see radical changes to the global order, driven by an unpredictable interplay between two contrasting forces: abundance and scarcity. Resources that were once constrained will become increasingly plentiful, while the supply of others – those that fueled the 20th century – will tighten. Our fate therefore hangs on our ability to adjust to choices that are multiplying along some dimensions, shrinking along others.

Three categories of resource have become more abundant and will continue to do so, often at an accelerating pace. *Information* is already extremely cheap, with nearly [500 exabytes](#) transferred around the globe every day. Looking

ahead, both the quantity and quality of information will grow. In particular, we will see increasingly sophisticated, crowd-sourced initiatives to "[democratize data](#)," enabling it to be shared, manipulated and analyzed in ways that will "[melt the glue](#)" that holds together today's industries and political systems.

Connections, too, will grow in number, unless there is a catastrophic breakdown in the world order. We are already in the early stages of [a revolution](#) in the way that people associate with each other. The number of links in global networks will multiply, and their reach will increase. Mobile telephones have already taken connectivity deep into the developing world. Solar, and other distributed power systems, have the potential to [accelerate the trend](#), plugging in hundreds of millions of people well before they gain access to the traditional trappings of modernity – such as property rights, roads, or even latrines.

Finally, more information and better connections will enable *recipes* – or [instructions](#) for arranging resources to achieve a defined end – to spread faster. In part, this will result from the power and penetration of markets. But design will also proliferate *outside* formal market mechanisms, as networks cooperate to test and disseminate open-source hardware, software, and strategies. Some of these recipes will create net value, while others will diminish it. But the speed of their diffusion will make them increasingly hard to regulate or control.

If plenty creates opportunity, scarcity will limit choices. The most obvious constraint will be to the availability of certain *strategic resources* – energy (especially liquid fuels for transport), food, water, land, and atmospheric space for emissions. The world is entering the final phase of a period of explosive population growth, with birth rates stabilizing only in those countries that have attained a basic level of prosperity and security. Plentiful information, meanwhile, is raising the aspirations of even the poorest citizen, while many countries have newly assertive middle classes. Competition for resources will thus be an inevitable, and probably dominant, driver of conflict.

The world has avoided [Malthusian traps](#) before, of course, but not without startling levels of economic, social and political innovation – in other words, better recipes. In the future, such advances will be threatened by another limit: our lack of *institutional capacity* to manage transboundary risks. Today's international system is dysfunctional and fragmented, while leading powers have done little to reform their own legacy systems. Institutions are, of course, especially frail in states where the population is growing fastest. Countries that fail to develop will export chaos: In a reversal of the Darwinian dynamic, [weak links](#) threaten the survival of the system as a whole, and do not simply give way to evolutionary progress.

Time, finally, will remain the ultimate scarce resource, with the battle for human attention an underappreciated source of instability. Information, connections and

recipes must all compete vigorously for mindshare. As one cultural theorist [puts it](#), "If it doesn't spread, it's dead." Swarming behavior will result from sudden spikes of both allegiance and opposition to an idea, trend, or movement, causing political systems to jump from one temporary equilibrium to another. Leaders of all types will face particular strain, as they struggle to gain the bandwidth required to maximize their pivotal and privileged position in overlapping global networks.

The Great Transformation

Together, abundance and scarcity will lead to radical changes in the international system. Borders will continue to become more porous as information, connections and recipes flow across them. Traditional hierarchies will be corroded, with sprawling networks gaining new ability to organize, mobilize and – if necessary – fight. Governments will find they face a choice. Those willing to accept marked changes in their own ability to exert power will integrate with global networks, thereby maximizing opportunities for their citizens. Those hoping to maintain unchallenged sovereignty, authority, and control will attempt to isolate their societies as far as – and if – they can.

With the "[society of states](#)" in flux, governments will need to find a new basis for cooperation, even as resource scarcity tempts them to intensify zero-sum competition. Change is needed at a pace that may prove beyond their capabilities. Climate stabilization, for example, requires the development of a low-carbon economy within a generation, a challenge that McKinsey [compares to](#) the Industrial Revolution, only at three times the speed. Each scarce resource affects the way others are used. A radical shift in the world's use of energy will therefore complicate efforts to make more productive use of land, water and food.

Some believe these problems are not amenable to global solutions, while others maintain that only incremental change is needed, or are simply hostile to any attempt to increase global order. The most important of these constituencies exists *within* the current establishment: a *priesthood* that has emerged around each global risk, controlling how that issue is framed, and imposing its own language, ritual, and ceremonies of observance. None of the risks can be tackled without involving its "priests." But often their assumptions have fossilized, while their privileged position reflects historical patterns of influence, rather than the shifting sands of power. Forceful action will be needed to break elite commitment to "business as usual."

By contrast, those who would like to see a global "[powerdown](#)" sit outside the establishment. They accept the need for radical change, but think that risk can only be managed at local levels. In this group can be found not only "deep green" environmentalists and "peak oil" theorists, but also systems thinkers who

[have concluded](#) that it is too late to tackle climate change, and security analysts who argue that the proliferation of weapons of mass destruction is [unstoppable](#). These groups share the belief that we should choose to unravel globalization before we are forced to do so.

Finally, there are various *secessionists* from the global order. Some of these are from the traditional right and are especially strongly represented in the United States, where they [lobby tirelessly](#) against the global institutions that America has done so much to create. Others are non-democratic governments, such as North Korea and Burma, that see isolation as the only way to control their citizens. Finally, there are terrorist and criminal networks. Of these, al-Qaida is the most sophisticated in its pursuit of avowedly existential aims, pitting its system and world view against ours. It is frightening not just for what it is, but for what it or its successors might evolve into: a genuinely open-source movement optimized to probe modern societies for their points of physical and psychological weakness.

These siren voices must be resisted for one reason above all others. It will be impossible to provide prosperity and security for a world of 9 billion without effective mechanisms to manage risk at a global level. Globalization, in other words, is no longer a choice. Either we actively design global systems capable of managing a period of radical transformation, or we allow disorder to take hold, suffer massive loss of human welfare, and return to the problem once desperation dictates a sustained effort to pick up the pieces.

The best analogy is with the "first globalization" of a century ago. Then, as now, financial systems were unable to cope with the strains placed on them and, in 1907, came [close to collapse](#). Resource pressures, meanwhile, were increasing as the United States, the rising power of the day, [competed](#) with established European powers. States, finally, had not adjusted to a new paradigm of war and were [enmeshed](#) in a system that was intricate in its operation, but in which levels of mistrust had steadily grown. The result, in 1914, was the destruction of the European order and a period of chaos that took two world wars and an intervening depression to resolve.

Today, while taking the possibility of collapse seriously, we must resolve to manage a similarly momentous transition, but without the pain, suffering, and foregone opportunity that made the first half of the 20th century such a disastrous period in human history.

The Resilience Perspective

Resilience [is defined](#) as:

The capacity of a system to absorb disturbance and reorganize while undergoing change so as to still retain essentially the same function, structure, identity and feedbacks.

In a *high-resilience system*, both risk and response to that risk is [broadly distributed](#). Individuals and groups share an interpretation of the challenges they face. Crisis prompts renewal and affirms a sense of common purpose. In a *low-resilience system*, by contrast, the future is heavily discounted and risks fall disproportionately on some groups. As a result, crisis prompts conflict, and the system as a whole becomes prone to sudden losses of complexity and function when placed under stress.

By thinking about resilience, policymakers are encouraged to engage in a single conversation about multiple threats, a process that expands "bandwidth" for risk management. The challenge is to develop solutions across three broad areas. First, new policies are needed if the world is to navigate the *dangerous demographics* it will face over the next generation. Countries such as Iran, Indonesia and Nigeria struggle to meet the needs of fast-growing, young, and increasingly urban populations, at the same time that the West continues to rapidly age. Comprehensive approaches will be needed to manage the problems of fragile states, cope with growing migration, restructure rich countries' labor markets and welfare systems, and facilitate an inevitable shift in influence away from the old "New World" to the new "New World."

Second, global, national and local systems must be strengthened to cope with a range of *insurgent threats*. Renegade state and non-state actors will continue to find new opportunities to disrupt and subvert global networks, using strategies that aim to undermine values, hollow out institutions, and provoke host societies into actions that increase their vulnerability. The disastrous war in Iraq has forced the American military into a [fundamental reappraisal](#) of how to counter insurgent threats. Important lessons have been learned, especially at a tactical level, but they must be applied systemically, in civilian as well as military contexts, instead of being confined to situations where desperation has created space for innovative thinking.

Finally, we need to invest in *operating systems* capable of producing public goods at a global level. The main priorities are to develop robust but flexible mechanisms for controlling weapons of mass destruction during a period in which regional nuclear arms races will pick up speed; for responding to economic shocks and imbalances which will be endemic to any interdependent system, especially as rising powers become wealthier; and for managing access

to strategic resources, above all emissions (the keystone constraint in richer countries) and [food](#) (which is similarly pivotal in poorer parts of the world).

A resilience perspective allows us to see each of these risks as [an opportunity](#) for increasing interdependence and thus cooperation. The aim is to amplify [signals from the future](#), encouraging actors to behave in accordance with their long-term stake in managing global instability. International strategies can then be developed which cut across our current geopolitical assumptions about how the world works, reshaping engagement in accordance with the different impact countries make on international systems.

Lifeline countries such as Somalia – which are close to, or have experienced, failure – must be isolated from the system and their disruptive influence contained, while intensive measures are taken to support recovery. Quarantine measures need to be designed with the right degree of permeability, blocking "bads" – arms, ideology, insurgents, drugs – from passing out or in, but ensuring that "goods" – exports if any, remittances and humanitarian support, technical assistance, information – can still be exchanged. Armed intervention should only be undertaken when there are advanced plans, and sufficient resources, to support a decade-long reconstruction effort.

Trust-deficit states – countries such as Pakistan, that are on the cusp of development – need less intrusive, but equally carefully calibrated, help. Currently, external intervention in these countries is short-term in its objectives and fragmented in delivery, often destroying resilience. Future engagement must draw together all diplomatic, developmental and, where relevant, military tools to help these states meet the demands of their own citizens for prosperity and security. Delivery should be genuinely multilateral – a condition often talked about but *never* met – and built around common data sources and metrics for success. When a trust-deficit state faces an internal security threat, it is especially important that the international community not push for kneejerk military measures that degrade institutions and further reduce trust. Instead, it should remember, and where possible teach, the [fundamental tenet](#) of counterinsurgency: to "secure and serve the population," while delivering a broader political strategy.

The world's *rising powers* and its *legacy leaders* bear primary responsibility for engineering more resilient systems at a global level. At present, most remain in thrall to the "national interest," even though they are seldom able to articulate what this interest is or how their actions have furthered it.

An obsession with national interests encourages a zero-sum mentality, focusing states on relative gains rather than on collective outcomes. It also encourages governments to overreach. Once governments interpret their role as forging opportunities for their own citizens overseas rather than protecting them from

risk, the door is open for elite capture, adventurism, and a *risk-taking* foreign policy. Incumbent powers need to focus instead on drawing rising powers *into* the international system, rather than wasting energy attempting to counter their rising influence. Benjamin Franklin's advice to those reluctant to sign the U.S. Declaration of Independence is apposite. "We must hang together," he warned, "or we will be pretty sure to hang separately."

Hanging Together

Here, then, are a dozen guidelines for building an international system fit for the 21st century.

1. Develop a *doctrine* with resilience at its heart, using it to create a unified narrative about how to manage the risks the world will face between now and 2030.
2. Start with the ultimate objective of building and protecting global systems, cultivating [a new constitution](#) for the society of states.
3. Create *incentives* for connecting to the international system and increase *penalties* for exclusion. Avoid disrupting the global order for short-term gain.
4. [Focus on function](#) (what systems need to deliver in order to manage risk) over *form* (the organogram that devotees of international politics obsess over).
5. Build the global *institutions* (rules, norms, markets, organizations, etc.) [needed to deliver](#) these functions. Aim for a *shared operating system* capable of managing each key risk.
6. Invest in mechanisms that create, analyze and debate solutions, delivering the *shared awareness* that underpins successful reform.
7. Build *shared platforms* on which state and non-state actors can work together to re-engineer systems. Sustain them over the long periods needed to battle for systemic change.
8. Use *open standards* to foster interoperability, allowing networks of organizations to work together and achieve elevated rates of innovation and learning.
9. Develop a *theory of influence* tailored to the modern age and use it to bind together all the instruments of international relations (diplomacy, development, military).

10. Apply a rigorous principle of *subsidiarity*, devolving responsibilities to regional, national and local levels where possible, thus maximizing resilience throughout the system.
11. Use the opportunity to reform *national governments*, increasing their openness, while reducing the scope of their mission so that they do less, better.
12. Be accountable for *outcomes*, using shared metrics and external assessors to report publicly on whether resilience is increasing for those risks that will mean most to the future of our civilization.

The Resilience Doctrine

We live in a time when the future seems particularly opaque and the "[riskiness of risk](#)" is increasing. Yet, with power [more diffuse](#) than ever, it is hard to create conditions for cooperative action. A doctrine based on resilience will bind together like-minded states and offer a basis for collaboration with non-state networks. We are entering a period of struggle that presents us with a choice. We would do well to follow Franklin's wise advice and hang together, creating global systems with the integrity needed to address challenges ahead.

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