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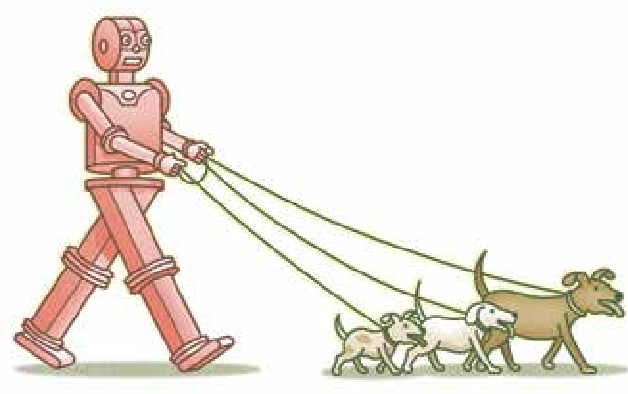

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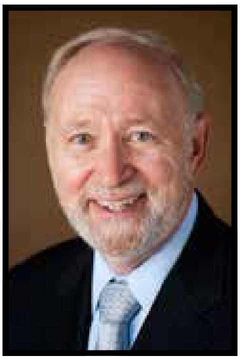
FROM THE CEO



I have been privileged to attend 16 annual Milken Institute Global Conferences, from the early days of a few dozen speakers in a single day to this past year's three day marathon, with 650 speakers on 160 panels. At the Institute, we're extremely proud of what the GC has become in the past 17 years. It is one of the world's premier gatherings for leaders in government, industry, finance, education, health and philanthropy – a place where they come not only to gain new insight on issues that directly affect their own work, but to learn from the whole spectrum of human endeavor.

GC participants tell us they find the array of choices stimulating – and a bit overwhelming. For us, that's part of the point: The program is designed to encourage attendees to sample topics far from their own expertise. We, of course, program dozens of sessions on business, finance and health – topics central to our research efforts. But, in synch with our broader mission, we focus as much on human capital as the financial sort. At Global Conference and elsewhere we aim to spur innovative thinking on how human talent and imagination – the true wealth of nations – can be mobilized. Thus, I'd like to share highlights from a few of the many panels from this year's gathering that represented the GC experience at its best.

• *Social Justice, Incarceration, and Re-entry: New Directions for a Better Way* delved into the economic and social cost of our current prison system, and pointed to alternatives that would be both more humane and more productive.

• *Women, Leadership and Economic Impact: Is the Story Being Told?* explored the imbalance between women's leadership potential and men's continuing domination of the centers of financial and political power. The panelists raised the question of whether the media's "under-telling" of the woman's story is partly responsible for the continuing failure to achieve parity.

• *YesWeCode: Training Next Generation Technologists* convened an all-star panel that included Van Jones and Chris Tucker. Their point of departure was the current skills mismatch, when jobs in technology go begging, even as workers in other sectors beg for jobs. The panel also offered insights into how information technology could transform communities and lift up young people in America's urban centers.

I invite you to stream these and all the other GC panels on the Institute's website. From our perspective, the value is not just the insights to be gained from watching, but the inspiration these insights spark among the watchers.

Michael Klowden
CEO

JG of Passadumkeag, Maine, writes to ask why the *Milken Institute Review* comes shrink-wrapped, like *Playboy*.

Good question, JG. Like Oscar Wilde, we are ever-vigilant about the impact of political economy on young, impressionable minds. In *The Importance of Being Earnest*, Cecily’s Victorian governess forbids her to read the chapter of her textbook on the fall of the rupee. We’re not sure what damage to morals the *Review* might do. But with so many of our authors championing a reduction in regulation, better safe than sorry.

Anyway, now that you’ve removed the polyolefin, sample the adult wisdom lurking in this issue…

Clifford Gaddy (Brookings) and **Barry Ickes** (Penn State) explain why Russia’s slippage into economic stagnation won’t be easy to reverse. “Putin lacks a plan to cure the ills of the economy,” they explain. “He apparently will maintain business as usual, based on mega-projects, tens of trillions of rubles for defense industry modernization and industrialization of Russia’s coldest and most remote regions in the East. Meanwhile, there is still no clear recognition of what has happened to the economy or of what could be done to fix it.”

Lucas Davis, an economist at the University of California (Berkeley), estimates the waste created by subsidies in a dozen countries that sell gasoline as cheap as 9 cents a gallon. “When local demand was modest compared to production, the inherent inefficiency could be overlooked, and it generally was,” Davis notes. “But demand has crept up

as consumers responded to both growing income and the incentives to buy fuel-inefficient vehicles and drive them a lot. Once in, of course, it is hard to get subsidies out."

Ross DeVol, the Milken Institute's chief research officer, takes the measure of Abenomics, the Japanese prime minister's Hail Mary play to jolt the economy out of its rut. "Japan has a historical knack for making comebacks when the odds seem longest," DeVol reminds. "And it just might be about to happen again: after two decades of lost growth, the stars may be lining up for a surge."

Frank Rose, a writer specializing in digital culture, takes aim at the blockbuster mentality now dominating the entertainment industry – the sense that the road to success will be paved with ever-fewer, ever-more-expensive mega-movies. "To the frequent consternation of those who try to run it," he writes, "the entertainment business is inescapably in the business of entertaining humans, a species that craves novelty as much as it craves spectacle – and one prone to sudden and unpredictable shifts in taste. Any theory that fails to take this into account is unlikely to survive the next cycle."

Charles Castaldi, a former NPR reporter in Central America, recounts the stranger-than-fiction tale of the $50 billion plan to build a rival to the Panama Canal through Nicaragua, using Chinese money and expertise. "The decision to move forward on a project of this scale took a lot of time to make, of course," allows Castaldi. "Well, not really; the speed with which the concession was granted would make those who have been struggling obtain approval to build the 36-inch Keystone XL pipeline in the U.S. for the past six years green with envy."

Vikram Nehru and **Nadia Bulkin** of the Carnegie Endowment for International Peace analyze the unraveling of Thailand's economy and polity – and how it might be reversed. "Many people consider the origins of the current crisis to be rising inequality between the affluent, rapidly growing region around Bangkok and the country's largely poor, rural North and Northeast," they explain. "But the divisions go far deeper."

Lydia DePillis, a reporter at the *Washington Post*, analyzes the emerging Trans-Pacific Partnership, "the most ambitious trade agreement the United States has ever negotiated." She writes: "More than eliminating tariffs – which are mostly pretty low anyway – it takes on a host of impediments to economic integration ranging from diverging safety standards to lax intellectual property protection. It's just as much a tool of domestic reform and an exercise in geopolitics as it is an agreement on the terms of global commerce."

Ed Dolan, a regular contributor to the *EconoMonitor* blog, argues the time has come for a no-strings-attached, "universal basic income" to reducing poverty. "It offends conservative sensibilities by offering something for nothing," he acknowledges. "And it raises serious questions for progressives who worry that a UBI would not do enough to transform the culture of poverty that weighs down the underclass. But it has pragmatic advocates (including me), who see the UBI as the way to escape the ideological and administrative quagmires of policy-as-usual."

And, yes, believe it or not, we've stuffed even more into 96 pages! Read an excerpt from *The Second Machine Age*, a new book that raises the specter of robot-induced mass unemployment. While you're at it, check out the very last page of the issue, which documents the grim fact that economic mobility in the United States is closely tied to where you live. Happy perusing.

— *Peter Passell*

BY CHARLES CASTALDI

MANAGUA, NICARAGUA — If Daniel Ortega, Nicaragua's well-entrenched president, has his way, the Panama Canal will soon be facing some competition. In a country in which there are only two buildings taller than 10 stories, a plan to build another canal linking the Atlantic and Pacific oceans seems a stretch. A Nicaraguan canal, announced with much fanfare last January, would be the largest construction project ever undertaken in Latin America, creating a waterway able to accommodate ships too large for the Panama Canal, along with an inter-ocean oil pipeline, two deep-water ports, airports and a railroad, all bolstered by free-trade zones. In short, the $50 billion-plus project would yank Nicaragua, the second-poorest country in Latin America, out of obscurity – and perhaps out of poverty.

Daniel Ortega and his mysterious new friend, Wang Jing

AFP/GETTY IMAGES

SNAP DECISION

The decision to move forward on a project of this scale – one with immense economic, environmental and geopolitical implications – took a lot of time to make, of course. Well, not really; arguably the most fantastical aspect of the plan is the speed with which the concession to build the canal was granted and chiseled into law. It would make those who have been struggling to obtain approval to build the 36-inch Keystone XL pipeline for the last six years green with envy.

The decision-making process combined efficiency with a complete lack of transparency, a duality that has become the hallmark of Ortega's government. The idea was hatched in 2012 when Ortega's son, Laureano Ortega Murillo, made contact with a Chinese entrepreneur, Wang Jing, apparently for the purpose of attracting an investment in telecommunications. But soon, larger dreams took hold, and when Wang made his first visit to Nicaragua, the canal was the first item on the agenda. Then, quicker than you can say "pipe dream," the president presented Wang to the Nicaraguan people as the master builder. Within a week of being handed a draft law, Nicaragua's Ortega-friendly National Assembly had rubber-stamped the exclusive franchise.

NICARAGUA'S COMEBACK KID

Ortega couldn't always get things done so easily. He headed the Sandinista movement that, in 1979, overthrew Anastasio Somoza, a West Point graduate and U.S. protégé who was a caricature of a corrupt, tin-pot dictator. On the heels of that victory, Ortega found himself at war with the Reagan administration's illegally funded Contra guerillas – remember Oliver North's secret arms-for-cash trip to Iran, complete with chocolate cake (baked in Tel Aviv) as an icebreaker?

In 1990, exhausted after nearly a decade of fighting and a U.S.-imposed economic embargo, Nicaraguans handed the Sandinistas an electoral defeat that caught them completely off guard. The lesson for Ortega seems to have been deep mistrust of electoral free-for-alls. He failed to get re-elected twice, until his wife, Rosario Murillo, became his campaign manager in the 2006 election. She kept him on a tight leash – no press conferences, no hamfisted, off-the-cuff remarks. She also reinvented him as a devout Catholic. Ortega managed to adhere to her script. And they had the good fortune to face an opposition that, in its typical maladroitness, went into the election divided.

Since then – we're talking seven years and a number of fraud-stained elections – Ortega has only given two one-on-one interviews – one in 2009 to TV journalist David Frost in his Al Jazeera English phase, the other (in 2012) to Russian television. This is a president who is never seen meeting with his cabinet, never seen in his office, never seen doing anything that isn't carefully choreographed.

Is he sick? Is he in Cuba? Is his wife running the day-to-day affairs of the country? There's much speculation, but that's about it.

MATCH MADE IN HEAVEN?

But back to the canal story. Who better to serve as partner to Nicaragua's version of the Wizard of Oz than Wang Jing? You're probably not familiar with Wang and his company, Xinwei – which is understandable, since no one really was until last year. That, however, hasn't stopped Xinwei from bragging on its website that the company "possesses huge strength and sublime eminence in the global commu-

CHARLES CASTALDI is an American journalist and filmmaker who covered Central America for National Public Radio during the Contra war. He lives in Nicaragua.

NGS/NATIONAL GEOGRAPHIC CREATIVE

nications industry" and that "Xinwei is creating history! Xinwei will become a legend!"

Wang's life is shrouded in even more mystery than Ortega's. He is a billionaire (number 1,210 on *Forbes*' current list of the globe's wealthiest people) who appeared on the entrepreneurial stage out of thin air in 2009 with deep enough pockets to buy the financially distressed Xinwei, which had begun existence as a state-owned enterprise. Although Wang insists he is "a very ordinary Chinese citizen" who lives with his mother, his younger brother and his daughter in Beijing, there seems little doubt he has connections into the more rarefied reaches of the ruling elite.

The Xinwei website has a section with snaps of a who's who of powerful apparatchiks doing the mandatory factory visits. And many of Wang's statements about the canal read like either naive enthusiasm or double-speak reminiscent of a pep talk from Chairman Mao: "We will change the world. Making this dream a reality will bring more happiness, more freedom, and more joy to the world."

According to Wang, he's also closed billions of dollars of telecommunications deals around the world. But journalists who have sorted through the self-aggrandizement have found that the reality falls short. Xinwei has been successful in selling proprietary telecommunications systems to the Chinese government. However, all the purported deals to sell similar equipment to governments in foreign countries from Cambodia to Zimbabwe seem to have gone nowhere.

In Nicaragua, Wang had promised to build a cellular network worth $2 billion by 2013. Now, in 2014, the figure has been reduced to $300 million and the first shipments of equipment are just trickling in.

However obscure Wang might be, there's little doubt he got a very favorable deal from Ortega for the canal concession. The Hong Kong Nicaraguan Canal Development Investment Company, which he created to manage this project and which he fully owns, will pay up to $10 million a year for 50 years, a term that is renewable for another 50 years. Each year, Nicaragua will be granted an additional 1 percent of the development company's shares, so that it will own 100 percent at the end of the 100 years. The fees collected by the canal and ancillary projects will be divided proportionally.

A LONG AND WINDING ROAD

There's still the matter of finding investors willing to pony up the $50 billion or more that the canal is expected to cost. Again, Wang had promised to make some of these investors known by the spring of 2014. But so far, the Hong Kong Nicaraguan Canal Development Investment Company has only reiterated that "many investors from all over the world are interested."

The issue of bringing investors on board may not be a stumbling block, however. While Wang purports to be a private businessman who says he "has nothing to do with the Chinese government," there's reason to believe that the Chinese state is ready to provide financing. Paul Oquist, Ortega's private secretary for public policy, recently told a diplomat who wondered where the money was going to come from: "Don't worry, the Chinese are fully behind this." Further evidence: the state-owned Chinese Railway Company, the second-largest construction company in China, has been designated the lead engineering and construction firm.

The idea of building a canal through Nicaragua dates back to 16th-century Spanish colonists. It resurfaced when Napoleon III of France sent surveyors to study possible routes – routes that, to this day, are on the table. And it entered American consciousness before the Civil War, when the California gold rush created a market for an alternative to the traditional routes.

Before the U.S. transcontinental railroad was built, the trip to California required either an arduous journey across America's Wild West by stagecoach or covered wagon, or a 14,000-mile sea voyage from New York around Cape Horn and up to California. The rail mogul Cornelius Vanderbilt provided an alternative by establishing a land and water route across Central America using Nicaragua's San Juan River, which flows from the Atlantic Coast into Lake Nicaragua, the second largest lake in Latin America. After crossing the lake, it only took an overland journey of 12 miles on a plank road to reach the Pacific. Passengers then boarded Vanderbilt-owned ships for the coastal run up to California.

Vanderbilt obtained an exclusive contract to build a canal along this route, but arduous lobbying by interests favoring the shorter (though arguably more daunting) Panama route proved a major distraction. When the French started construction in Panama only to run out of money, the United States picked up the project in mid-construction for a song. So the inter-ocean canal ended up in Panama.

NEW LIFE TO AN OLD IDEA

Still, the hopes of building a Nicaraguan canal were never fully extinguished, even as the Panama Canal seemingly rendered the case

Lake Nicaragua, above. The Brito Inlet (right), the likely Pacific coast outlet of the canal

TOP: ASSOCIATED PRESS. BOTTOM: MCT VIA GETTY IMAGES

moot. And many decades later, the combination of economies of scale in ocean carriage and the exponential growth in demand for long-haul shipping have brought it to the fore. Humungous ships are the way to go these days because they are proportionately cheaper to operate. But they are generally too big to pass through the Panama Canal.

The Panamanians, who have owned the canal since the United States turned it over in 1999, have undertaken a $5 billion expansion that promises to accommodate ships carrying as many as 14,000 standard containers. But Maersk, the world's largest shipping company, has already taken delivery of new ships 1,300 feet long and almost 200 feet wide that can carry 18,000 containers. Meanwhile, the most efficient bulk-commodity transports – ore carriers, supertankers and liquid-natural-gas carriers – have all outgrown the soon-to-be-improved Panama Canal.

That's not to say a Nicaraguan canal is necessarily viable in economic terms. There are already alternatives to the Panama route. At present, three-quarters of the cargo from Asia to the United States is unloaded in West Coast ports and then moved east by rail – all told, an 18-day journey to the Eastern Seaboard. Going through the Panama Canal takes about three days longer. Going west from Asia through the Suez Canal to the East Coast also takes about 21 days. And, for those who like to look on the brighter side of environmental disasters in the making, global warming may open up an Arctic shipping route that would be considerably shorter than any of these.

In a presentation to Nicaraguan businessmen last November, the Hong Kong Nicaraguan Canal Development Investment Company projected a tripling (to 9 percent) of the annual growth in global shipping tonnage over the next six years. It pointed out that the Chinese are now the second-largest clients of the Panama Canal, after the United States. And it paid McKinsey & Co. to do a study the development company isn't making public, which reportedly confirmed the economic viability of a canal that can handle bigger vessels.

Talk to the average Nicaraguan, and you get the sense that if the canal can deliver jobs, concerns over the project's environmental impact or the pervasive lack of transparency around it fade into insignificance.

In any event, economic viability may not be necessary if the Chinese government is, indeed, backing the project and has geopolitical goals in mind. The Chinese have explored a number of smaller transportation projects in Guatemala to the north and Colombia to the south. A project of the Nicaraguan canal's dimensions would secure a foothold in the hemisphere for the Chinese and great influence over a key global shipping route.

Here in Nicaragua, there have been newspaper articles suggesting that the Russians – Ortega's patrons in the 1980s – have also taken an interest in the canal and have been in conversations with the Chinese. The best guess now, though, is that Russian participation would be limited to construction and engineering.

For the moment, U.S. diplomats are taking a wait-and-see approach to the whole thing, leaving the impression that they think the project is pie in the sky. But if the canal is to be built, they say, they want U.S. companies to have a fair shot in the bidding. And while memories of U.S. intervention may still burn, the United States has more leverage with the Ortega regime than one might think. At present, it is Nicaragua's largest trading partner, and Washington enjoys a cordial working relationship with Managua on what interests it most: drug interdiction and antiterrorism.

RESISTING THE RUSH TO JUDGMENT

Opposition to the canal has come primarily from environmentalists and intellectuals, many of whom were Sandinista supporters in the 1980s. Sergio Ramirez, a noted author who also happened to be Ortega's vice president during that period, puts it bluntly: "The whole thing is a fiction," he said, "the sort of malicious dream that separates us from others to drag us toward an eternal panacea hidden in an opium haze. Poverty, ignorance, marginalization, economic injustice, all of this gets conveniently covered over by this magic veil."

Some of Ortega's opponents note that he has had to look for new patrons now that aid from Venezuela, which has averaged over $500 million a year over the last seven years, is diminishing as the Venezuelan economy and polity implode. China might fill the void in one way or another.

Arguably the biggest naysayers are those concerned with what this gigantic project would do to Nicaragua's environment. Jaime Incer, a former minister of natural resources and Nicaragua's leading environmentalist, points out that the canal company has hired the British firm ERM to study the environmental impact. "Even if the firm that does the environmental-impact studies has a good reputation," (ERM qualifies), Incer argues, "the simple fact that it's been hired by the same company that is going to build the canal" implies that "it will not produce impartial results."

The release of these studies was originally planned for the beginning of the year. Officials say they'll now be ready by midyear. But both Ortega and Wang insist that the route for the canal will be chosen and construction will begin by the end of 2014, which hardly seems enough time for anyone to analyze ERM's findings – especially given the scope of the project.

Pedro Alvarez, a Nicaraguan who chairs the Department of Civil and Environmental Engineering at Rice University (and who, ironically, holds an honorary professorship at the Chinese Academy of Sciences in Beijing) is not sanguine about the environmental consequences. He says constant dredging would be required to keep Lake Nicaragua, which is quite shallow, navigable for large ships. That and the lake's natural tendency to form sediment could wreak havoc on water quality, which for the moment is nearly pristine. "One of my greatest concerns," he adds, "is that we would have supertankers crossing the lake with millions of barrels of oil, and even the slightest spill would forever doom such a delicate and closed ecosystem."

There are other potential environmental pitfalls to worry about, including the risks in cutting important bio-corridors near the Atlantic Coast, damaging species habitat, and changing the water level of the San Juan River. The area around the Panama Canal, however, attests to the fact that the construction of a canal need not lead to environmental catastrophe. Under American tutelage, Panama created vast protected areas to insure the watershed could provide the huge amounts of water the canal needs to function. "I have no doubt the Chinese can build first-class infrastructure that would be long-lasting," Alvarez says. "What I'm not sure is whether they'll do it in a responsible manner, because neither Nicaragua nor China have been exemplary when it comes to environmental and social impacts."

The backers of the canal play to these sentiments with plenty of hyperbole.

MONEY TALKS, LOUDLY

Talk to the average Nicaraguan, and you get the sense that if the canal can deliver jobs, concerns over the project's environmental impact or the pervasive lack of transparency around it fade into insignificance. It's not hard to understand why; with almost half the population subsisting below the poverty line and one adult in four living abroad in search of work, the canal's perceived bounty is attractive, indeed.

The backers of the canal play to these sentiments with plenty of hyperbole. Ronald MacLean-Abaroa, a spokesman for the Hong Kong Nicaraguan Canal Development Investment Company, said that if Nicaragua builds the canal, "this country becomes the richest in Central America." Meanwhile, Oquist, Ortega's private secretary for public policy, talks about tripling the pace of economic growth to 15 percent, doubling the GDP and creating as many as a million jobs by 2018.

The job-creation numbers are based on the rule of thumb that every $25,000 worth of investment puts another person to work. But one must ask how many of those jobs would go to a work force that ranks among the least-educated and least-productive in Latin America.

Again, Panama offers a point of reference. During the decades in which the United States controlled the Canal Zone, the average Panamanian reaped few benefits beyond the eradication of yellow fever and malaria.

Now, however, 15 years after Panama took control of the canal, its economy has become a Latin American success story. Panama's growth has been fueled by banking, a free-trade zone, container ports, and even tourism, all of which benefit from the presence of the canal. Where Panama serves as more of a cautionary note is in its pervasive income inequality, which is among the highest in the hemisphere.

In part, Nicaraguans support the idea of a canal because they support Ortega – his approval ratings hover around 50 percent, with another 25 percent on the fence. One reason Ortega is popular is Venezuelan aid; he's used the half-billion dollars in yearly discretionary spending to provide housing, food subsidies and "patriotic bonuses." Health care, basic municipal services and access to education have all improved since Ortega's return to the presidency in 2007. So it's no surprise that in a country in which the large majority of citizens would be considered poor by developed-country standards, Ortega's focus on improving their lot has given him a solid base of support.

But it's not just the poor who think they have something to gain from the canal; many business leaders seem eager for construction to begin as well. Indeed, Ortega's rapprochement with the private sector marks one of his more surprising and savvy transformations.

Gone is the anti-capitalist rhetoric of the 80s, not to mention the property expropriations and flat-footed central planning. Ortega has formed an alliance with big business. And since the Sandinistas already control the unions, a form of creeping corporatism is taking shape – one in which important policy decisions are made after negotiations with labor and capital.

The biggest challenge facing the canal may be the inherent instability of a nation with top-down government.

ORTEGA 2.0

Not surprisingly, then, many of Nicaragua's business oligarchs seem content to look the other way as Ortega dismantles the checks and balances on his administration. Boundaries between the Sandinista Party and the government are mostly gone. The constitution has been amended, eliminating term limits for the presidency and giving Ortega direct control of the military and the police. The Supreme Court has been stacked with Sandinista acolytes who have yet to question a single law proposed by Ortega. Meanwhile, Ortega's wife appears to exert almost complete (if unofficial) control over domestic policy.

One of Nicaragua's richest men, Carlos Pellas, whose companies are the biggest players in almost all facets of the Nicaraguan economy, recently came out of a meeting with Ortega, declaring that "here, everybody has the right to free association, the press is free to express opinions, so I think that here we're living in an open society."

Pellas was right about the government's tolerance of press freedom. Compared to the 1980s, when the opposition press was censored and most media were simply Sandinista propaganda machines, the heavy hand of government is far less visible. But Ortega is methodically eroding the practical value of press freedom by buying up broadcast channels and withholding government advertising from media deemed unfriendly.

As to free association, that depends entirely on whom one is freely associating with. If it's young people demonstrating solidarity with retirees protesting low pensions – as happened in June 2013 – then things don't seem quite so open. The Sandinistas bused in unofficial shock troops (identifiable by their Sandinista T-shirts advertising "good government") to chase and beat the teens and 20-somethings as the police stood by.

This raises an interesting point: arguably, the biggest challenge facing the canal may be the inherent instability of a nation with top-down government. In the short term, Ortega and his Sandinista Party look like they have the popular support – not to mention the control of the electoral process – to remain in power for at least another election cycle. But canal investors need assurances about the continuity of a business-friendly climate decades down the road, when others will be governing Nicaragua.

"How are we going to transition out of Daniel Ortega?" asks Antonio Lacayo, who was a close advisor to Violeta Chamorro when she defeated Ortega in the 1990 presidential election. "He has used all the means at his disposal to ensure the opposition cannot win. So how will the end of *Orteguismo* come? Peacefully, or will there have to be another war? Each time the country undergoes violent change, its economy loses any momentum it has built up."

For the Chinese, the idea of stability achieved at the cost of democratic rights must seem, at the very least, familiar, if not outright desirable. And if the Chinese are willing to underwrite the cost of construction of the canal themselves, the issue of political uncertainty should be a non-issue. But if Wang is truly going to bring in investors from all over the world, then the Sandinista propensity for amassing power to the point that peaceful transition becomes next to impossible is likely to give private investors pause. Ironically, then, it might be Ortega himself, whose disregard for due process has brought the century-old dream of a Nicaraguan inter-oceanic canal within shouting distance of reality, who becomes the very reason why it never gets built.

ASSOCIATED PRESS

The Pragmatic Case for

a Universal Basic Income

BY ED DOLAN

Are you frustrated by the interminable quest to end poverty in the face of ideological division and widespread cynicism? Why not just cut to the chase, sending everybody in the country a monthly check that covers the rudimentary needs of even the poorest among us?

I know, I know: this sounds like fodder for high school debating societies, or perhaps a bumper sticker left over from the Occupy movement. And it is certainly not on Congress' immediate agenda — or for that matter, President Obama's. But slow recovery from the Great Recession, a stubbornly high poverty rate, stagnant wages and the threat of chronic unemployment fed by technological change and global competition have combined to spark new interest in an old, seemingly radical, idea. Besides, it isn't so radical. At one time or another, progressives, libertarians and conservatives have all supported some variant.

The concept goes by many names: unconditional basic income, basic income guarantee, demo-grant. I prefer "universal basic income," or UBI for short. Whatever you call it, though, the feature that distinguishes a UBI from other sorts of social safety nets is its universality. Unlike other income-support programs, it is not means-tested. Instead, a UBI would provide subsistence-level grants to everyone, regardless of need, earned income, age or job status.

A SCORECARD

Step back for a moment. The ideal income-support program would:

- Leave no one below the agreed-upon poverty level.
- Focus support on those truly in need.
- Sustain (or increase) incentives to work.
- Be inexpensive to administer.

Unfortunately, there are trade-offs that make it impossible to achieve all four objectives simultaneously. A comparison of the alternatives suggests why.

The simplest form of income support is a "top-up" grant – that is, a policy that offers sufficient aid to bring families out of poverty, but no more. Just to have a number to work with, let's set that figure at $20,000 a year for a family of three, a number close to the current official poverty benchmark.

The top-up approach would, of course, satisfy the first requirement. And it would be well targeted, since households already above the poverty line would not be eligible. However, it has one huge drawback: It would leave many households with almost no incentive to work and earn.

For families that are poor to start with, the disincentive is obvious. If a family with no earned income gets $20,000 in government benefits, and one with $10,000 in earnings gets only a $10,000 benefit, why work at a low-wage job?

Less obviously, the disincentive extends to families who could earn enough to lift themselves just above the poverty line. Suppose a household with no income gets $20,000 in annual benefits. One member has a chance to get a job paying $25,000 per year. Is it worth it? Probably not. If $20,000 in benefits will be lost in the process, the net return to work falls to a measly $5,000. Child care, transportation and clothes for work could eat up most of that.

Moreover, despite the simplicity of its objective, a program that just topped-up income would not be easy to administer. The government would have to constantly nose around in families' finances and adjust benefits accordingly. That would be all the more difficult because the threat of losing benefits would provide a strong incentive to hide earnings.

THE TAPER TRAP

One way to have it both ways would to be taper payments gradually as income increases, rather than cutting benefits by a dollar for each dollar of earnings. A tapered benefit was one of the central features of the negative income tax that Milton Friedman proposed in the 1960s. His idea: give people with no earned income a federal tax credit, paid in cash, that would be sufficient to live on. After that, families would be subject to a benefit-reduction rate of 50 percent. That is, as income rose, benefits would fall by 50 cents for each extra dollar earned. Once the benefit fell to zero, which would happen at double the poverty line, families would start paying regular income and payroll taxes only on additional earnings.

Friedman's negative income tax was not adopted in its original form, but many current income-support programs include some kind of taper to encourage work. For example, the federal earned income tax credit (EITC) applies a benefit-reduction rate of 34 percent to families near and just above the poverty line. Complicating matters a bit, the benefit-reduction rate changes with earnings: for families with incomes near the middle of the poverty range, the rate is zero. And the very poorest families with children receive a cash credit of more than one dollar per dollar earned, making their benefit-reduction rate negative!

PREVIOUS PAGE: JAMES FRYER

JAMES FRYER

Note, however, that tapered income support is more expensive than a simple top-up: Except for those who have no earned income at all, poor families are eligible for more than the minimum they need to cross the poverty line. Also, benefits continue for households with earned incomes modestly in excess of the poverty line.

To improve targeting and hold down costs, some safety-net programs impose cutoffs beyond which households are no longer eligible for benefits. Suppose we started with a program that gave $20,000 to families with no earned income, and reduced benefits by 25 cents for each dollar of earned income. That would provide a reasonable work incentive (an effective tax rate on earnings of 25 percent), but families with incomes all the way up to $80,000 would receive some benefit.

To reduce costs, the program could cut off benefits altogether when earned income, say, reached double the poverty line – that is, $40,000. But there's no free lunch here; far from it.

While this plan would maintain adequate work incentives for households with low earned incomes, it would introduce a new kind of disincentive – a cliff – at the cutoff point. A household with earned income of $39,999 would receive $10,000 in benefits, giving it disposable income of $49,999. However, one more dollar in earnings would make the household ineligible for any benefit. So, in this extreme case, the hapless earner would effectively pay $10,000 in taxes on the last dollar earned!

Benefit cliffs can create especially strong disincentives for second workers in a household. Imagine a family where one spouse earns $30,000. In our example, the family's income, including a $15,000 income-support benefit, would be $45,000. If the other spouse now gets a full-time job that brings in an extra

$20,000, household income would rise only to $50,000 since all benefits would be lost. Child care, transportation, and other work-related expenses would erode the net $5,000 gain, leaving little to show for the extra work.

Work incentives under existing income-support programs are often even weaker than those in our hypotheticals. One reason is that many incorporate benefit cliffs. Medicaid, the Children's Health Insurance Program and the health insurance subsidies provided to low earners through Obamacare are all guilty as charged.

Note, too, that benefit-reduction rates of various programs are additive. For example, if a household faces a 20 percent benefit-reduction rate for food stamps and a 30 percent benefit-reduction rate for subsidized rental housing, it loses a total of 50 cents in benefits for every extra dollar earned.

Finally, we have to take account of the incentive effects of taxes. Although people with very low incomes pay no federal income tax, earned income is subject to a 7.65 percent payroll tax for Social Security and Medicare. Moreover, after a household reaches the threshold for federal income taxes, an additional 10 percent marginal rate applies.

For purposes of work incentives, what matters is a household's effective marginal tax rate, which is the sum of its marginal tax rates for income and payroll taxes plus the benefit-reduction rates on any income-support programs it qualifies for. For example, if a household faces a 20 percent benefit-reduction rate on food stamps, a 30 percent benefit-reduction rate on rent subsidies, a 7.65 percent payroll tax rate and a 10 percent income tax rate, its effective marginal tax rate would be 20+30+7.65+10, which equals 67.65 percent. That means its disposable income would rise by just $32.35 for each $100 of additional earned income.

In practice, effective marginal tax rates are moderate for families with earned incomes below the poverty level. Effective rates are much higher, typically over 50 percent, for families whose earned incomes fall in the range between the poverty level to twice the poverty level. And effective rates on second earners are typically even higher.

THE UBI ALTERNATIVE

By now, some of the attraction of a universal basic income should be apparent. A UBI would be effective in raising household incomes at least to the poverty line as long as the benefit were set at that level or higher. Moreover, a UBI would not affect anyone's work incentives, since there would be benefit reductions as earned income climbed.

Then, too, a UBI would be administratively efficient and unobtrusive. It would require no verification of any personal trait or behavior other than the existence of the beneficiary. If the UBI were integrated with the existing federal income tax system, only households with no income at all would receive the full UBI benefit in cash. Those with low-to-moderate incomes would receive part of the benefit as a credit toward income and payroll taxes, and the rest in cash. Those with high incomes would get a tax credit equal to the UBI benefit, which would reduce the taxes they would otherwise owe.

Unlike other existing support programs, however, a UBI would go to everyone: households that didn't "deserve" help (however you choose to define that) would still get it. Moreover, by definition, universality would make the UBI more expensive than targeted programs.

ED DOLAN, an economist specializing in Eastern Europe, is the author of the textbook *Introduction to Economics*, now in its fifth edition.

THINKING ABOUT AFFORDABILITY

Providing grants to everyone that would be sufficient to raise a typical family of three above the official U.S. poverty threshold would cost about 10 percent of GDP. And that would truly be a budget-buster if it were simply layered on top of today's system of taxes and transfer payments. But this is not what supporters have in mind.

A UBI would be effective in raising household incomes at least to the poverty level as long as the benefit were set at that level or higher. Moreover, a UBI would not affect anyone's work incentives, since there would be benefit reductions as earned income climbed.

Indeed, a UBI is only conceivable as part of a thorough overhaul of both taxes and government transfers. For the poor, the UBI would replace other safety-net programs. For middle- and upper-income groups, it would replace existing tax deductions, credits and preferences. Consider some back-of-the-envelope calculations of how large a basic grant we could afford without raising marginal tax rates for middle-class and wealthy taxpayers.

To simplify the matter, I'll separate the issue of health insurance from that of income support. This means we will neither expect people to use their UBI benefits to cover health care expenses nor look to cutbacks of existing health care subsidies as a source for financing the UBI. I'll also separate the issue of education support from that of income support. One way to do that would be to pay part of children's UBI benefit in cash to the parents, while putting the rest in trust. The trust could pay educational expenses of minor children, taking due account of parents' preferences. As children grew older, they could receive a gradually increasing allowance to spend at their own discretion. Trustees would release any remaining funds to the beneficiaries when they reached adulthood. That would give young adults a nest egg that they could use, if they chose, to pay for college.

If you're already a skeptic, you've no doubt noticed that, if transformed into top-up grants, the $1 trillion the government currently spends on safety-net programs would be more than enough to raise everyone above the official poverty line. But, of course, the top-up approach would create wretched disincentives to work and be a nightmare to administer.

Another pitfall: about a quarter of all means-tested spending comes from state and local government budgets. Conceivably, some combination of financial sweeteners and political bipartisanship could persuade all the states to make contributions to the UBI. But many Republican states' scorched-earth approach to Washington's largesse, which rejected heavy federal subsidies to expand Medicaid, suggest that this would be a very hard sell in places that already regard the safety net as socialism. Better, then, to count only on the federal portion of welfare spending as a source of funds.

Note, too, that, even before Obamacare, about a third of federal means-tested welfare spending went to Medicaid (which includes nursing homes for the elderly) and the Children's Health Insurance Program. That leaves only $500 billion to finance a UBI.

Divide $500 billion by a population exceeding 315 million – the "universal" in UBI means universal – and we end up with something like $1,600 per person annually. So, to fund a UBI that put everybody above the poverty line, we'd need to dig a lot deeper.

DARE WE SPEAK THE E-WORD?

Middle-class entitlements delivered through the tax system, including the mortgage-interest deduction (worth $174 billion in 2013), the deferral of income taxes on retirement accounts ($145 billion) and the deduction of charitable contribution ($49 billion), are another potential source of funding for a UBI. All told, the termination of these tax preferences (even leaving intact the deductibility of employer-paid health care insurance) would add some $580 billion to the kitty.

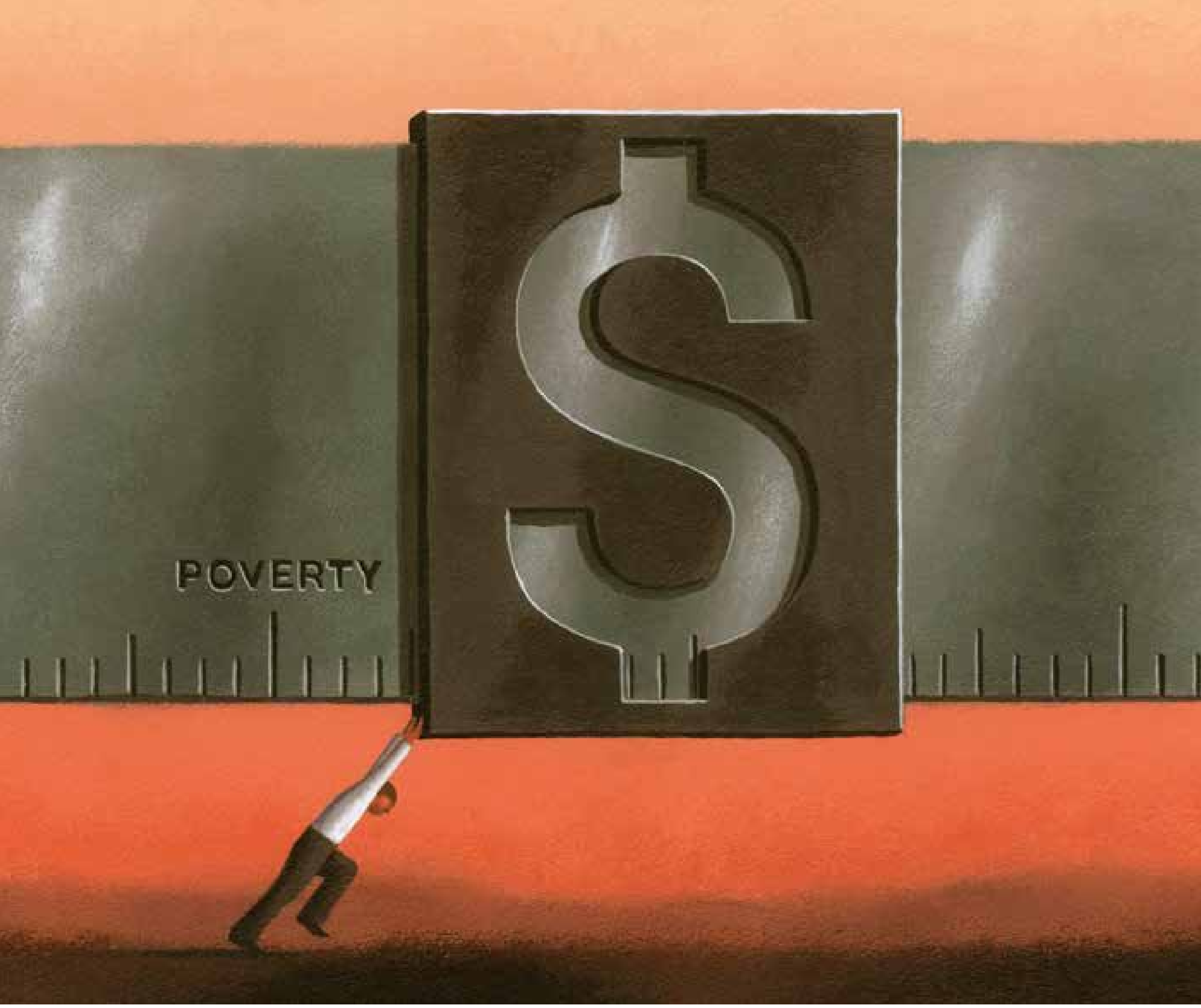
Political suicide, you say? Perhaps. But not if voters truly understood where their interests lay. The math suggests that most middle-income households would gain as much from the UBI as they lost from the end of the big tax-based entitlements. It would only change the way the benefits were distributed.

All told, the $580 billion in additional revenue could add about $1,800 to the per capita UBI grant, bringing the running total to about $3,400 per person. To put that in context, consider the case of a couple in the 25 percent tax bracket (taxable income of $73,800 to $148,850 filing a joint return in 2014). Such a couple would be better off with the UBI and without the middle-class tax preferences unless they amassed more than $27,000 in itemized deductions in the eliminated categories.

Onward. We could also jettison the personal exemption, which reduced taxable income by $3,900 per person in 2013. Stripping it from middle income tax returns would (very conservatively) yield $585 billion in revenues, or enough to add another $1,800-plus to the UBI grant. Now the running total is about $5,200 per capita – still not quite enough to bring a family of three with no earned income above the poverty line.

WHERE MIGHT SOCIAL SECURITY FIT IN?

Social Security retirement benefits are higher for individuals who pay in more. But the system is nonetheless redistributive because benefits received by lower-income retirees are relatively large in proportion to lifetime contributions. It would thus be natural to rethink the redistributive function of Social Security in conjunction with the introduction of a UBI.



JAMES FRYER

One approach would start with a phase-in period, during which people who were already retired could opt either for the UBI or for their Social Security benefits, but not both. In the long run, as new people entered the system, the whole schedule of Social Security taxes and benefits could be adjusted accordingly.

About 35 million people currently receive Social Security retirement benefits, with 90 percent of them receiving more than $7,200 per year. That suggests fewer than 10 percent of retirees would opt for the UBI during the transition phase. If so, we would only need to spread the resources available for financing the UBI among just 286 million people, not the entire population of 316 million. Making the appropriate adjustments would bring the amount available for UBI grants to more than $5,800 per person.

WHO GAINS, WHO LOSES?

Count the virtues:

• Except for small families with little or no earned income, the UBI would be enough to bring households above the poverty line (in 2014, from $19,790 for three to $40,090 for eight). Health care programs for low-income families would not change under our version of the UBI.

• Replacing today's jumble of means-tested welfare programs with a UBI would sharply decrease effective marginal tax rates for poor and near-poor families, thereby enhancing work incentives.

• Most middle-class households would receive more from the UBI than they would lose in tax benefits. No Social Security retirees would suffer a net loss. Those currently receiving the smallest Social Security benefits would gain by opting for the UBI.

• Financing the UBI would not require raising anyone's marginal tax rates. However, middle- and upper-income households that currently take large itemized deductions could face an increase in the percentage of income they pay in taxes.

THE POLITICS OF A UBI

Although many conservatives and progressives support a UBI, others fear that a UBI would produce a nation of layabouts. Once people no longer faced homelessness or starvation, why would they work? But these concerns are surely exaggerated. In the language of economics, a UBI would generate two conflicting incentives. On the one hand, the "substitution effect" would lead people – especially those in low-income households – to work more because the effective marginal tax rate would fall: substituting one hour of work for one hour of leisure would bring in more money than before. The "income effect," by contrast, would incline people to work less when their total incomes increase – as it would for the poor and near-poor.

Which effect would dominate? One way to test the strength of the income effect is to look at how people react to windfalls like inheritances and lottery winnings. These do not change the amount a person takes home from an added hour of work, so they have an income effect but no substitution effect. Studies of windfalls suggest that income effects do exist, but they are weak.

If a UBI were added on top of existing income-support programs, it would have only an income effect. In that case, it would probably reduce work effort, although not by much. However, a realistic UBI that replaced current safety-net benefits would create a strong substitution effect because poor and near-poor families would be able to keep a much larger share of their marginal earnings.

At the same time, the income effect of such a program would be small (or nil). That's because peoples' incomes would not increase by the full amount of the UBI, but only by the difference between the UBI and the value of the food stamps, housing vouchers or whatever that they get now.

On balance, then, a UBI that replaced means-tested welfare programs would be likely to have a large positive effect on work effort for those now living at or near the poverty line. Far from producing a nation of goof-offs, it would draw into the labor market many people who don't currently consider the net returns to work sufficient to justify the effort.

LIBERTARIANS AND THE UBI

So far, we have focused mainly on conservative and progressive support for a UBI, but some libertarians also favor the concept. That might seem surprising; after all, it is almost an axiom of libertarianism that for Peter freely to give money to Paul is charity, but for John to point a gun at Peter and force him to give to Paul represents theft of Peter's property. Libertarians who support a UBI must thus begin by rebutting the presumption against forced giving.

The first libertarian defense of a UBI is purely pragmatic: while some ideal society might get along without any coercive redistribution of income, a UBI would at least be better than what we have now. As Matthew Feeney, the assistant editor of the libertarian webzine *Reason 24/7*, put it, "Rather than make the principled argument against the redistribution of wealth, libertarians would do better if they were to argue for a welfare system that promotes personal responsibility, reduces the humiliations associated with the current system and reduces administrative waste in government."

Libertarians can also defend a UBI as a counterweight to the injustices of private property. In principle, of course, libertarians are ardent defenders of private property. But some acknowledge serious flaws in the way the system now works. One such flaw is that a lot of wealth is acquired through government subsidies or by putting up legal barriers to competition – behavior that economists lump together under a term they coined for it: rent-seeking. That behavior is so pervasive that it is impossible to untangle the particular victims and beneficiaries of each law. But a moderate tax on all forms of income and property, returned to everyone as a UBI, would almost certainly lean against the rent-seeking wind.

Less-doctrinaire libertarians, many of whom prefer to call themselves classical liberals, suggest a third reason for supporting a UBI. Given the choice, they argue, freedom-lovers would prefer to live in a system where the minimal state, in addition to protecting people and their property from criminals and foreign enemies, provided everyone with a minimum income to fall back on in case of misfortune. We can find support for a UBI in one form or another in the writings of Adam Smith and John Stuart Mill, and of more recent libertarian thinkers, including Friedrich Hayek and Milton Friedman.

Far from producing a nation of goof-offs, a UBI would draw into the labor market many people who don't consider the net returns to work sufficient to justify the effort.

THE IMPROBABLE DREAM?

Hardly anyone sees a UBI as a perfect safety net. It offends conservatives by offering something for nothing. And it raises serious questions for progressives who worry there is more to poverty than a lack of income – that a UBI would not do enough to transform the culture of poverty that weighs down the underclass. But it has pragmatic advocates (including me) who believe that a UBI offers a better compromise than do other income-support programs among the mutually incompatible criteria of effectiveness in reducing poverty, maintenance of work incentives, administrative efficiency and accurate targeting.

A big worry, of course, is that a UBI would end up as budget-buster or require a raid on private wealth to finance it. However, as shown, it need be nothing of the sort – provided it were part of a bargain in which other antipoverty efforts (save medical care) were abandoned, and middle-income earners traded in a hodgepodge of tax breaks for the universal basic income grant.

The most encouraging sign is that the liveliest debates over a UBI today are taking place within, rather than between, the main ideological camps. At a time when macroeconomic forces and the politics of big money are leading to ever-greater inequality, perhaps America is still capable of finding common ground for a pragmatic antipoverty effort. M

Thailand,

Unraveling

BY VIKRAM NEHRU AND NADIA BULKIN

Thailand is at a political impasse.

First, the country's Constitutional Court removed Prime Minister Yingluck Shinawatra and part of her cabinet for seemingly minor offenses. Then the military intervened, replacing constitutional government with what it calls "the National Council for Peace and Order."

Thailand can't move forward without fresh elections, yet it can't seem to hold them, either. And its chronic electoral dysfunction is causing economic as well as political paralysis: GDP shrank at a 2 percent rate in the second quarter.

The origins of the crisis are widely attributed to rising inequality between the affluent, rapidly growing region around Bangkok and the country's largely poor, rural North and Northeast. The divisions go deeper, however, reflecting long-brewing resentment of the populous Northeast's lack of a voice in the power structure.

The split has surfaced before, sometimes violently. But the country's current impasse appears deeper and less tractable than in the past. And while one could imagine a formula for saving democracy, it wouldn't be easy to sell.

ORIGINAL SINS

Political turbulence is the rule in Thailand, not the exception. In eight decades of constitutional monarchy, there have been 19 coups, 9 prime ministers removed by force and another 3 ousted by court order. In the last eight years alone, four election results were thrown out and four prime ministers have gotten the boot.

Genuine democracy is a recent phenomenon, arriving only in this century. The military was in power from 1947 to 1992, except for two brief periods in 1973 and 1976. Reverence for the monarchy, fear of the armed forces and the strength of the civil service – not the legitimacy of elected leaders – has been the glue that has held the country together.

Thailand slipped into gridlock in November 2013, when tens of thousands took to the streets to challenge the government's right to rule. In essence, the battle of Bangkok has been between elitists and populists. The ousted prime minister's Pheu Thai Party (the populists) and its previous incarnations have trounced the opposition Democrat Party in the four elections since 2000. In that time, Yingluck and her elder brother Thaksin (who was prime minister from 2001 to 2006) consolidated support in the vote-rich Northeast through bread-and-butter programs aimed at the rural poor.

The protesters, on the other hand, are predominantly from the middle class in Bangkok and southern Thailand, where the Democrat Party has strong support. They claim that the Pheu Thai Party has bought office with handouts. Led by Suthep Thaugsuban, a former deputy prime minister and veteran power broker, the protesters called for Yingluck to step down. When she ordered elections for February 2014, they simply changed tactics, disrupting polls in at least 28 districts.

Thailand's Constitutional Court declared the elections null and void in late March, and fresh elections were set for July. Then the same court accomplished what the protestors had not, forcing Yingluck out of office. That was followed by a move to impeach her by Thailand's anti-corruption commission. But the military chose to interrupt this legal confrontation with a coup. If the army chooses to back off, in the run-up to an election – presuming there is one – Suthep's happy supporters (called "yellow shirts" for their attire)

PREVIOUS PAGE: EPA/NARONG SANGNAK

are likely to be challenged by their Pheu Thai Party "red shirt" counterparts.

The origins of the current crisis lie in the Northeast, which accounts for a third of the parliamentary seats in the country and holds the key to electoral victory. But it was not always thus. In fact, until fairly recently, those in power in Bangkok didn't think much about the aspirations of the Northeast. The region, home to the Isan people, who incorporate a variety of ethnicities including Lao (the majority), Khmer, Suay, Phu Tai and Vietnamese, only came under control of Bangkok in the late 19th century, when local elites were replaced by central-government appointees.

The Northeast's proximity to Laos and Vietnam gave Bangkok cause to worry about military incursions, especially after World War II when Thailand's military regimes became the fulcrum of America's strategy to contain communism. Under U.S. tutelage in the 1950s and '60s, the generals managed the Northeast with a mix of repression and agricultural development – a policy foreshadowing the United States' anti-insurgent strategy in Vietnam.

Taxes on the Northeast's rice output were used to finance industrial and infrastructural development around Bangkok. Market reforms in the agricultural sector, together with rapid technological improvements in agricultural production in the Northeast, rendered much of the labor force redundant. The now-jobless young moved south to fill the growing demand for industrial labor in and around Bangkok.

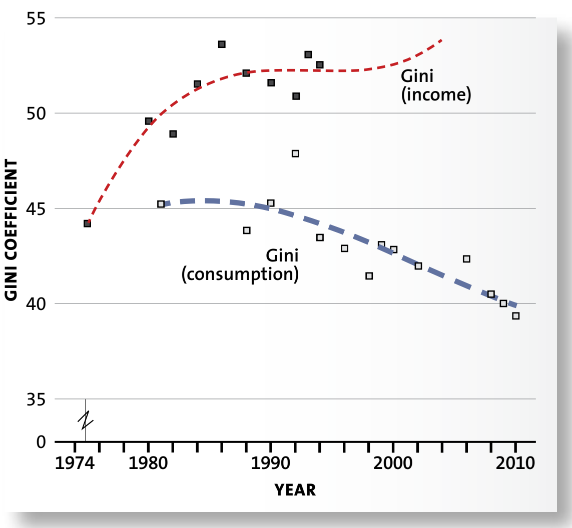
The industrial base of the Bangkok metropolitan region grew rapidly, as it offered an international port, superior infrastructure and massive in-migration. Meanwhile, the rest of the country remained largely agricultural, providing little opportunity for upward mobility. To be sure, after the threat of communism faded the government encouraged development in the North and Northeast, providing an array of incentives to encourage firms to locate there. But to little avail: these incentives were inadequate to overcome Bangkok's self-reinforcing locational advantages.

EPA/PONGMANAT TASIRI

Since the 1980s, Thailand's average real per capita income tripled, earning it a place as a charter member of the Asian Tiger Cubs. But over the decades, its income inequality has become the highest in Asia, reaching levels seen only in Latin America and Africa. At the same time, rural-to-urban migration caused the difference in average per capita incomes among the regions to narrow. So rising national inequality was the result of rising intra-regional inequality, not rural-urban income differences. At the rural end, the inequality can be traced to growing concentration of land holdings; at the urban end, it was linked to the flood of unskilled migrants.

The impact of widening intra-rural inequality was somewhat blunted by the burgeoning flow of remittances from migrants to their families back home. But the money also led to a growing sense of grievance, as poor families were connected to the rest of the world via the Internet and satellite TV. Long-neglected Northeasters demanded a larger share of government spending, in particular for health care and education.

RISING INCOME INEQUALITY, FALLING CONSUMPTION INEQUALITY



SOURCE: World Bank; Thailand National Economic and Social Development Board

VIKRAM NEHRU is the Bakrie Chair in Southeast Asian studies at the Carnegie Endowment for International Peace. **NADIA BULKIN** is a research assistant at the Endowment.

ENTER THAKSIN, STAGE LEFT

Notwithstanding these economic sea changes, the politics hardly changed until 1997; power remained confined to the Bangkok-based elite. But two critical factors broke the dam.

The first was the Asian financial meltdown of 1997. That crisis tested Prime Minister Chuan Leekpai of the Democrat Party, who accepted IMF financial support with unpopular strings attached, including initiatives to prioritize foreign investment and reduce the size of government.

Virtually all segments of society found something to dislike here. Business leaders, who blamed the crisis on the flight of foreign capital, were upset to see the foreigners welcomed back. Representatives of the poor were upset by the austerity policies demanded by the IMF. They blamed the crisis on the concentration of growth (and wealth) in Bangkok. More than 3 million Thais had slipped into poverty in 1999, with the most severe increases in the Northeast (from 19 percent in 1996 to 31 percent in 1999). The rural poor were hit not only by declining income from agriculture but also by lower remittances from their relatives in Bangkok.

A second factor also played a critical role. Thailand had introduced a new constitution in 1997 that changed the electoral rules. Earlier, each district elected three representatives, so candidates had every incentive to emphasize personal characteristics rather than party policies and programs. The 1997 switch to single-member districts meant that not only were candidates now more accountable to their constituents, but they were driven to emphasize national policies that would hold broad appeal and capture a majority in parliament.

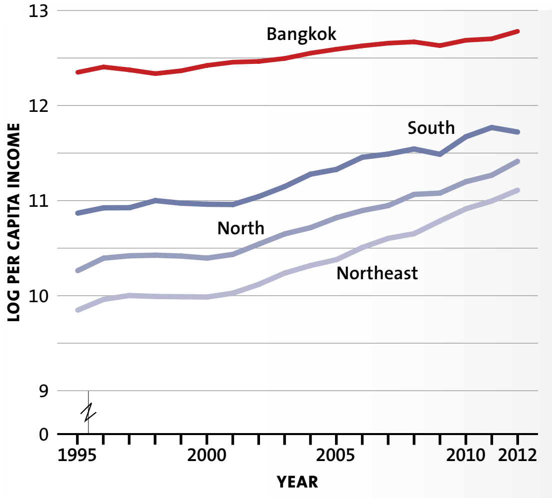
Appearing to grasp the depths of public discontent following the financial crisis and the opportunities presented by the new constitution, Thaksin Shinawatra, a politically pragmatic media mogul, formed the Thai Rak Thai party in 1998. He was shrewd enough to realize that he would need to build broad support in the populous North and Northeast to win – an unprecedented electoral strategy in Thailand. To secure that support, Thaksin recruited the brain power of grown-up radical students whom he had met as a ministerial aide during anti-junta protests of the 1970s, along with non-governmental health advocates and activists working for urban labor.

While hardly antibusiness, Thaksin's political platform directly addressed the problems of the poor, advocating a debt moratorium for farmers, below-market loans for community development and a universal health insurance program. Just three months before the 2001 elections, the Thai Rak Thai Party unveiled a subsidized healthcare program guaranteeing physician visits at a cost equivalent to $1, and made it the central plank of its electoral strategy. These proposals offered a striking contrast to the Democrat Party, which subscribed to the IMF-inspired policies and appeared disconnected to the routine hardships of ordinary people.

Thaksin and the Thai Rak Thai Party won the 2001 elections with the largest majority enjoyed by a Thai political party to date. Indeed, it was the first time that a single party had ever won a majority in the Thai Parliament. Thaksin ran a tight ship, reshuffling his cabinet no less than eight times over the next four years, increasing the power of the prime minister's office and sending the clear message that he expected competence and unwavering loyalty from his ministers.

Thaksin took little time in implementing his party's campaign promises. His government redirected the budget toward the inexpensive health care program, created a National Health Security Office to bypass the

CONVERGING AVERAGE PER CAPITA INCOMES BETWEEN BANGKOK AND THE NORTHEAST



SOURCE: Thailand National Economic and Social Development Board (http://eng.nesdb.go.th/Default.aspx?tabid=96)

Ministry of Public Health and allocated hospital funding in proportion to the number of patients treated. The number of uninsured fell to 5 percent of the population by 2002. Although the poor benefited disproportionately, others were helped, too. Indeed, civil servants benefited handsomely from increased funding for medical benefits and even the middle and upper classes enjoyed improved public services.

Thaksin also polished his populist image with a locally managed village-development fund that doled out microcredit to rural Thais at below-market interest rates.

These policies substantially boosted the standard of living of the poor, although benefits were uneven and indebtedness may actually have increased due to the easy availability of credit. More important, the poor *felt* they benefited, and most credited Thaksin's policies – not only through health care and village loans, but also through higher prices for farm crops and lower prices for farm supplies.

The Yellow Shirts

The Red Shirts and the Yellow Shirts

Officially termed the United Front for Democracy Against Dictatorship, the red shirts challenge the existing Thai social order, which offers little chance for social mobility. They are not just poor farmers bused in from the North and Northeast, but are also drawn from a growing class of “urbanized villagers” with aspirations to join the middle class. Many work in market-oriented farming and small non-farming business ventures, with multiple sources of income and a few acres of land. All have used the low-cost health care program and most have received business loans from Thaksin-era programs. Policy reversals since the 2006 coup hit their aspirations hard. They believe in the democratic process as the means to defend their rights, and strongly oppose coups and interventions as antidemocratic.

The yellow shirts – as the People’s Alliance for Democracy has come to be known — are typically middle-class professionals. They view corruption as rampant among poor rural voters and argue that Thaksin and his political allies subvert democracy through vote-buying. For yellow shirts, tampering with election outcomes is acceptable because elections can be manipulated to yield undemocratic outcomes. Yet they offer little by way of an alternative.

Thaksin, it appeared, offered the poor a chance not just to get by, but to get ahead.

That said, Thaksin was no enemy of neoclassical economic policies. Indeed, he accepted and implemented the reforms dictated by the IMF. He promoted foreign investment in export-oriented manufactures (while protecting domestic industries). He tried to privatize state enterprises including the Electricity Generating Authority of Thailand, but encountered stiff opposition from unions. Domestic firms were able to increase their competitiveness by shedding labor, but the Thai Rak Thai Party and Thaksin retained the broad support of urban workers because their rural families were benefiting from the party's policies.

It shouldn't have come as any surprise, then, that Thaksin won his re-election bid in 2005 with a resounding margin and a large parliamentary majority.

THE FALL

The scale of Thaksin's second electoral victory scared the Bangkok establishment. Thaksin had won a people's mandate and became even less concerned with his critics. He even stopped consulting Gen. Prem Tinsulanonda, the 80-something president of the Privy Council (the council of advisors appointed by the king). Defenders of the monarchy became genuinely concerned that Thaksin would supplant the king's influence and power – which is a bigger deal than one might think. By making the king and queen symbols of Thai national identity and judiciously using the lèse-majesté law to silence critics of the status quo, monarchists and their supporters had maintained power ever since Thailand became a constitutional monarchy in 1932.

General Prem, a formidable figure in Thai politics and éminence-grise among the monarchists, was reported as saying that power had gone to Thaksin's head and that he should remember that Thailand already had "a No. 1" (namely, the king). In 2006, the general told graduating cadets of the Royal Military Academy that they should obey the king, not the government.

Prem's ire was understandable. Thaksin had eroded the general's support among powerful constituencies including the Bangkok-based business elite, whose proxies were included in his cabinet. He centralized the levers of power – the media and the bureaucracy – at the expense of the old guard.

In the early years of Thaksin's administration, the monarchists and the military appeared helpless against Thaksin's political savvy. He effectively countered an attempt by the Constitutional Court to indict him in 2000 for failing to report his assets correctly in the mid-1990s, saying, "Who should I be more loyal to? The people? Or to the Court? I love people." The Court acquitted him.

But the empire fought back. A coalition of anti-Thaksin groups formed in 2006 – the People's Alliance for Democracy – and organized huge public rallies. They pointed to the $1.9 billion tax-exempt sale of Thaksin's telecom conglomerate to Temasek (Singapore's sovereign-wealth fund), as further evidence that Thaksin was abusing power for his personal benefit. Thaksin was also vulnerable to criticism about deteriorating security in the South and the military's use of excessive force. Finally, the slowing post-2004 economy rekindled urban opposition, especially among the middle class.

At first, Thaksin claimed that his opponents were just "jealous" of his family's riches, brushing aside charges of corruption. He decided to cement his mandate, calling an election in April 2006. But the opposition parties parried the move by boycotting the vote.

In September 2006, Thaksin was ousted in a bloodless, royalist-led military coup – the first since 1991 – while he was addressing the UN General Assembly in New York and he subsequently went into exile. Thaksin had trusted the military, in part because of his family ties, but also because he had given the military latitude over arms spending. The military, however, was ultimately an instrument of the monarch and answered to General Prem, who had reminded them a few months earlier that while the elected government might be the jockey, the monarchy owned the horse. King Bhumibol was also sending clear signals that he was concerned with Thaksin's political leadership. In his birthday address, he noted that in Thailand "everything is getting worse and worse."

The military's justification for the coup was that Thaksin had "caused an unprecedented rift in society." The intelligentsia argued that, while temporarily anti-democratic, the coup was necessary to save Thai democracy's long-term prospects. Others called for a return to "clean politics," accusing Thaksin of corruption and praising the unshakable moral authority of the king. In 2008, Thaksin was convicted in absentia of corruption relating to a land deal and sentenced to two years in prison by the Supreme Court.

The military junta relinquished direct control, but not before promulgating a new constitution in 2007 that reduced the power of political parties and the elected government. The express purpose: undercutting the Thai Rak Thai Party and Thaksin, and strengthening the role of the military and monarchy.

But as the elections held later that year showed, this was an exercise in futility. The People's Power Party, successor to the now-banned Thai Rak Thai Party, swept the vote and propelled Samak Sundaravej to leadership as head of a coalition government. Under pressure from hundreds of thousands of street demonstrators in Bangkok and accused of being a Thaksin proxy, he, too, was forced to leave office after eight months, when the Constitutional Court found him guilty of conflict of interest for hosting cooking shows on television.

Samak's successor, another People's Power Party stalwart and Thaksin's brother-in-law, lasted just two months in office before being axed by the Constitutional Court for electoral fraud. Not only did the Constitutional Court remove the prime minister, it dissolved the People's Power Party and stripped party executives of their political rights for five years.

For the time being, then, monarchists, with the support of the military and the Bangkok elite, had prevailed over Thaksin and his proxies. With some coercion from the military, Parliament now appointed the leader of the Democrat Party, Abhisit Vejjajiva, as prime minister. The Eton- and Oxford-educated Abhisit served the two remaining years of Samak's term.

Unsurprisingly, Abhisit's tenure proved difficult. It lacked legitimacy in the eyes of many, coincided with the global financial crisis and had to deal with devastating floods in late 2010. But most of all, it was buffeted by violent protests by Thaksin supporters – the aforementioned red shirts, who clashed daily on Bangkok streets with the yellow shirts.

WHY YINGLUCK HAD TO GO (TOO)

Abhisit dissolved parliament in May 2011, seven months before he was obliged to, and elections were held two months later. He led the Democrat Party in the campaign. His principal opponent was Yingluck Shinawatra, Thaksin's youngest sister and the leader of the Pheu Thai Party – yet another avatar of Thaksin's original Thai Rak Thai Party. Yingluck was an ingénue in the truest sense. She had no experience in politics, and was marketed as an extension of the exiled Thaksin.

The Red Shirts

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Once again, though, a Thaksin proxy won a thumping majority at the polls – by a margin even bigger than Thaksin managed in 2005. Although the Pheu Thai Party had a majority of seats in Parliament (265 of 500), it formed a coalition with five smaller parties, leaving the Democrat Party as the sole party in opposition.

No sooner did Yingluck assume office than she faced her first crisis: the worst floods in 50 years. It took more than a year before her administration announced massive investments in water management (which the World Bank confirmed had a high economic and social rate of return). In the interim, the Pheu Thai Party reverted to the Thaksin formula for winning popular support: increased credit to farmers, a three-year debt moratorium for small borrowers and tax and subsidy giveaways to corporations, car buyers and homeowners. Her administration also announced a 35 percent increase in the minimum wage, which proved problematic because it forced thousands of small enterprises (including many in the North and Northeast) to close or downsize.

But perhaps the policy for which she will be most remembered was the rice-price guarantee for farmers. Not only did it depart from previous rice-buying support programs in Thailand because of the exceptionally high price guarantee (50 percent above international levels), it failed to set any limit on government purchases. The government was obligated to buy from anyone who was prepared to sell. And sell they did: the cost exceeded $22 billion, more than 3 percent of GDP.

The government had hoped that the withdrawal of Thai rice from the global market would drive up the international price, leading to a handsome public profit. Instead, international prices plummeted, in part because Indian and Vietnamese rice exporters filled the gap to become the world's No. 1 and No. 2 rice exporters.

The fiasco made the government the world's largest rice trader, left to deal with virtually the entire marketable crop in the country. By the end of 2013, the government's stockpile reached 18 million tons, roughly equal to Thailand's annual output. Rice farmers in neighboring countries were quick to see the advantage in smuggling their rice into Thailand to benefit from the high procurement price. Efforts at government-to-government sales to reduce the surplus came to naught. When the government's budget allocation for rice purchases was used up, it turned to reluctant banks to help finance overdue payments to farmers.

The law underpinning the rice subsidy expired earlier this year, and no government can extend it without permission from the National Election Commission – which is very unlikely to agree. Ironically, the subsidy failed the very people it was designed to benefit; less than 20 percent of the money reached poor farmers. The rest helped millers, corrupt bureaucrats and large farmers. The final irony: most small rice farmers consume more rice than they produce, which made them net losers when the government drove up the price.

While Yingluck's economic policies were problematic to say the least, her political maneuvers seemed more successful. She appeased the military, assuring high-level commanders that they would not be transferred. She was even successful in managing a partial rapprochement with General Prem.

But all that changed in 2012, when the Pheu Thai Party presented a bill to provide a blanket amnesty for all those involved in political offenses from mid-2005 to mid-2010. This would have forgiven Democrat leaders, including Abhisit and Suthep as well as General Prem, for violence against red-shirt protesters. But it would also have pardoned Thaksin and permitted his return from exile.

The bait was rejected. Democrat Party members and yellow shirts used physical violence to obstruct discussion of the bill in Parliament. And, in typical fashion, they took their case to the Constitutional Court, which suspended consideration of the bill in order to prevent "escalating political tension."

The return of Thaksin is abhorrent to the Bangkok elite, not only because they object to his policies, but also because they fear he would control the next king. Crown Prince Vajiralongkorn is heir, but his scandalous personal life has made him unpopular. Moreover, when Thaksin was in power, the crown prince was suspected of accepting funds from the state lottery to pay off gambling debts. Monarchists and the military thus live in dread of a weak king in the thrall of Thaksin.

Crown Princess Sirindhorn, on the other hand, is widely admired for her charitable work and dutiful support of her father. Most in the elite would probably prefer her succession, if for no other reason than to ensure the monarchy remains a politically legitimate, unifying force. The Palace Law of Succession, incidentally, makes succession the sole prerogative of the reigning king. (If King Bhumibol never appoints an heir, the Privy Council decides.)

Now that the military has intervened, Thailand faces international opprobrium; worse, the coup could generate a secessionist movement in the North and Northeast.

SAVING THAI DEMOCRACY

For reasons hopefully now clear, the monarchists and their supporters weren't willing to let a popularly elected government stay in power. Nor, apparently, could they beat the Pheu Thai Party in a fresh election. The military has now stepped in, announcing it will engineer a political reconciliation, stabilize the economy, and rewrite the constitution so that similar political crises can be avoided in the future. They will find this to be like threading a needle in a hurricane.

The military suspended the constitution, imposed martial law, initiated measures to stabilize the economy, re-started government services, and took steps to review, and in some cases resume, government infrastructure projects. They also detained many politicians and activists from both sides of the divide, but have since released a number of them. A committee has been appointed to advise on political reforms, including revisions to the constitution.

vices, especially health and education, with an aim to ensure equality of opportunity. Any constitutional change should therefore consider devolution of many government functions to regions within a federalist-style political arrangement. Regional development should be pursued by connecting the provinces to Bangkok with better transport and telecommunications infrastructure. Market

Unstable government and a deteriorating economy are likely to exacerbate the tendency toward violent confrontation, and this could feed back to the economy in a vicious circle.

A key objective of the junta is to reconcile Thailand's opposing political forces. To do so, the military authorities would be wise to involve the king. He may be old, but the reverence he commands still gives him considerable influence. The king could show his impartiality by insisting on major concession from both sides of the political divide. The king could also reduce tensions by naming his successor. No matter whom he chooses – the crown prince or the crown princess – the monarchy will be unlikely to wield the power it has in the past. While the monarchy has long been seen as a stabilizing force in Thai society and polity, its fading increases the chances that a more resilient democracy may emerge in which regional compromises are thinkable.

The military should also consider policy reforms from a medium-term perspective to get Thailand back on a Tiger Cub growth path. Constitutional amendments could include provisions to constrain governments from using the budget primarily to project (and protect) political power. Along with adopting a fiscal rule that forces the government to eschew unsustainable deficit spending, emphasis should also be on delivering public services... incentives, not government subsidies, should guide the industrialization of rural regions.

Finally, in the long term, it is important the military authorities ensure that countervailing institutions – especially the Constitutional Court and the National Anti-Corruption Commission – are not just independent, but are seen to be independent.

Both were created under the 1997 constitution and were quickly captured, initially by Thaksin and later by the military and the monarchists. Confirming the reality as well as the perception of independence would be no small matter, however.

Time is not on the side of the military. The longer the National Council of Peace and Order remains in power, the likelier violent confrontation. Their proclamations of impartiality notwithstanding, most people in Thailand, especially those in the North and Northeast, view the military and its actions as biased in favor of the monarchist network. It would be most unfortunate if they are proved right. The military, and Thailand's political elite, should recognize that in the long term, while democracy is an imperfect form of government, it still beats the alternatives.

The Blockbuster Syndrome

By Frank Rose

Fifteen years ago, while reporting for *Fortune* on Seagram's troubled acquisition of Universal, I was told by a studio executive about number crunchers flying in from New York, calculating that mega-budget movies generally produce the highest returns, and wanting to know why the studio didn't make just six giant pictures a year. "Literally," he declared in disbelief, "that was a conversation."

Today the disbelief is long gone. Variants of this conversation have been held all over Hollywood – and the result is what you see at the multiplex: a demolition derby of sequels, franchises, tent poles and mega-flops, with the occasional mid-range picture tossed in for Oscar bait.

Aesthetically, it's widely agreed, the result is a disaster – but commercially? Depending on which end of the spectrum you're looking at, 2013 was either the best of years or the worst of years for Hollywood. The best in the sense that a dozen movies, almost all of them costing well over $100 million to produce and another $100 million or more to market, brought in a total of nearly $10 billion at the box office worldwide – roughly half of which went back to the studios. The worst


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The $190 million write-down that Disney took on The Lone Ranger was made up over just a couple of weekends by the gushers of cash from Iron Man 3 and the animated feature Frozen.

in that another dozen pictures, made by the same studios for roughly the same amount of money, yielded ticket sales of only $3 billion, a dismal tally that in some cases led to spectacular write-downs.

George Lucas and Steven Spielberg had predicted as much in a public appearance at the University of Southern California last June. Surveying the current landscape, the two filmmakers – the very people who less than 40 years ago invented the blockbuster as we know it with *Star Wars* and *Jaws* – saw little to be sanguine about. "There's going to be an implosion," Spielberg said, "where three or four or maybe even a half-dozen mega-budget movies are going to go crashing into the ground, and that's going to change the paradigm."

In the following weeks, the implosion played out as forecast: *White House Down* on June 28, *The Lone Ranger* on July 3, *Pacific Rim* on July 12, *Turbo* on July 17, *R.I.P.D.* on July 19, *Elysium* on Aug, 9. All told, close to $1 billion in production costs alone went up in smoke, with more disasters to come at Christmas. But the paradigm didn't change at all. This year, the studios are releasing so many would-be blockbusters that they had to start in February, in the midst of Oscar distractions, with Sony's $100 million remake of *RoboCop*.

What explains such apparent madness? One thing: as big as the losses from Hollywood's blockbuster strategy can be, the wins have proved even bigger. Gone are the days, apparently, when a single outsize disaster might sink a studio into the Pacific, as *Heaven's Gate* did to United Artists in 1980. Universal Studios lost millions last year on *R.I.P.D.* and the holiday stinker *47 Ronin*, but that barely mattered next to the nearly $1.8 billion taken in by *Despicable Me 2* and *Fast & Furious 6*. The $190 million write-down that Disney took on *The Lone Ranger* was made up over just a couple of weekends by the gushers of cash from *Iron Man 3* and the animated feature *Frozen*. And so on, all across Tinseltown.

It's conceivable that, so far, the studios have simply been lucky. But in her recently published book, *Blockbusters*, Anita Elberse of the Harvard Business School offers intellectual justification for Hollywood's bet-the-farm strategy. Though the safer course might appear to involve making a larger number of pictures at smaller budgets, she writes, "content producers can't afford to walk away from big bets – doing so would actually *increase* their chance of failure in the long run."

The "laws of consumer behavior" that explain this, Elberse argues, apply not just to Hollywood, but to entertainment of every stripe. What's more, she asserts, the conventional wisdom that the digital era will prove inhospitable to the mega-hit is wrong. From Justin Bieber to Lady Gaga, "blockbusters will become more – not less – relevant to popular culture, and blockbuster strategies will thrive."

This is a message that embattled mass-media entertainment executives have been longing to hear. But does the evidence back up the claim? Obviously, neither hits nor stars have gone away. Yet that is hardly the same as saying that mass-appeal blockbusters will be the signature mode of entertainment in the digital age. Indeed, on closer examination, the pattern now emerging is actually quite different.

SEAN MCCABE

If simulcasts of *La Traviata* and its ilk can be considered blockbusters when they run once in the same multiplex that plays *Despicable Me 2* ad infinitum, you have to wonder: does this term still mean anything?

Not fewer hits but more, and many of them not undifferentiated world beaters but smaller data-driven hits tailored to the tastes of specific audiences. Not *M*A*S*H*, whose 1983 TV finale was watched in three out of every five American households, but Netflix's *House of Cards*. Not mega-hits, but smart hits.

A FORMULA FOR THE DIGITAL AGE?

The claim that blockbusters will prevail in the digital era is certainly a provocative one. Ever since 2006, when Chris Anderson published *The Long Tail: Why the Future of Business Is Selling Less of More*, many have considered it axiomatic that once the world is liberated from the physical constraints of shelf space, infinite choice will flourish. Anderson – who wrote the book when he was editor-in-chief of *Wired*, where I was a regular contributor – did not in fact predict the end of hits. His model of demand, like that employed by Elberse and others who study this phenomenon, was a "power law" curve, with a small number of hits clustered at one end of a graph and a large number of far less popular items – the "long tail" – trailing off at the other.

In the physical world, the need to show movies in theaters or display products in stores puts an obvious limit on how much of this long tail will be available to any given consumer. But in a digital environment, Anderson pointed out, such limits don't exist. This, he argued, would spell the end of "the water cooler era," with its emphasis on a common culture of hits, and the advent of "the microculture era, when we're all into different things." A result: "The companies that will prosper will be those that switch out of lowest-common-denominator mode and figure out how to address niches."

Eight years on, we can see that it hasn't quite worked out that way. Even two years after the book came out, Google's chairman, Eric Schmidt, an early supporter of Anderson's long-tail theory, admitted to second thoughts. In an interview published in *McKinsey Quarterly* and quoted by Elberse, he explained, "I would like to tell you that the Internet has created such a level playing field that the long tail is absolutely the place to be – that there's so much differentiation, there's so much diversity, so many new voices. Unfortunately, that's not the case. … So, while the tail is very interesting, the vast majority of revenue remains in the head," the part of the curve where the hits reside. "And this is a lesson that businesses have to learn. While you can have a long tail strategy, you better have a head, because that's where all the revenue is."

In Schmidt's revised view, the Internet will accelerate the transition to the kind of world described by the economists Robert Frank of Cornell and Philip Cook of Duke in their 1995 book, *The Winner-*

FRANK ROSE writes about and consults on digital culture. His most recent book is *The Art of Immersion: How the Digital Generation Is Remaking Hollywood, Madison Avenue and the Way We Tell Stories*.

Take-All Society. This is a world in which "the value of what gets produced," as they put it, "often depends on the efforts of only a small number of top performers, who get paid accordingly." It is a world dominated by superstars – some of them household names, others all but unheard-of outside their chosen fields, be it law or banking or academia.

Globalization encourages the development of winner-take-all markets because it broadens the talent pool enormously. It puts opera singers in New York in competition with divas in Moscow, software engineers from Silicon Valley in competition with their counterparts in Beijing, automobile designers in Detroit in competition with those in Stuttgart and Turin. With the triumph of the Internet, Schmidt predicted "larger blockbusters and more concentration of brands" as well as the rise of global superstars – "global brands, global businesses, global sports figures, global celebrities, global scandals, global politicians."

Around the time that the Schmidt interview came out, Elberse addressed the issue in a *Harvard Business Review* article titled "Should You Invest in the Long Tail?" Producers will find little profit there, she concluded after a bout of number crunching, so they should limit their exposure and focus on potential hits. Retailers might want to adopt a long-tail strategy in order to keep their biggest customers happy, since people who buy a lot of music or books or whatever tends to be the heaviest consumers of niche offerings in these mediums. But there won't be much profit in this, so costs will need to be kept to a minimum. And most people will never go beyond the hits.

All of which seemed quite reasonable. But as she developed and extended this argument for the book, Elberse ventured into dubious territory. Figures that appear to reveal an increasing concentration of sales at the hit end of the spectrum in fact mask a quite different pattern – one of an expanding *number* of hits, most of them on a considerably smaller scale than hits in the past. At the same time, Elberse conflates blockbusters – aberrant mega-hits of the type currently beloved by Hollywood – with ordinary hits and the stars who typically power them. She even writes about "blockbuster" operas (*La Bohème* or *La Traviata* as opposed to, say, Reiner Bredemeyer's rarely performed *Der Neinsager*) and the Metropolitan Opera's *Live in HD* program, which simulcasts popular productions in movie theaters from Albania to Uruguay.

Opera is certainly a winner-take-all enterprise, and the Met is unquestionably a winner. But if simulcasts of *La Traviata* and its ilk can be considered blockbusters when they run once in the same multiplex that plays *Despicable Me 2* ad infinitum, you have to wonder: does this term still mean anything?

JAWS AND THE HOLLYWOOD BLOCKBUSTER

Hits and stars are nothing new. We've had them at least since the era of Charles Dickens and Jenny Lind – which is to say, since the advent of mass media in the mid-19th century. Blockbusters are a much more recent phenomenon. The movie industry has always delivered a smattering of outsized hits, *Gone with the Wind* being one of the earliest examples. But until 1975, when Universal released *Jaws*, high-quality pictures generally opened in a few dozen theaters and built slowly over time.

After *Jaws*, this all changed. The Hollywood studios and their corporate parents started going for a fast payback, which meant wide releases backed by pricey television advertising. By the end of the 1990s, studio executives like

Alan Horn of Warner Bros. had evolved this into a "blockbuster strategy," allocating a disproportionate share of resources to a handful of pictures on the theory that, on average, they would generate wildly disproportionate sales. Book publishers and record labels have employed similar game plans.

Yet much of the success that Hollywood has enjoyed with its blockbuster strategy to date is a function of circumstances unique to the movie business – in particular, the ever-growing sophistication of digital effects (including 3-D) and the extraordinary rise of the international box office. Foreign sales, once an afterthought, accounted for nearly 70 percent of the industry's box-office receipts by 2012. Razzle-dazzle effects and a spate of new theater construction around the globe, combined with a spectacular rise in consumers' discretionary income, have turned what had largely been a domestic business into one dominated by non-English-speaking territories – markets where, much as with American teens, subtleties of characterization and dialogue are hard-pressed to compete with action sequences.

Even so, it's difficult to make a convincing case that Hollywood's blockbuster strategy is a uniquely digital-age formula for success. Compared with music and the print media, the movie business is still at a relatively early stage of disruption. In their early phases, digital technologies often favor established industries that are smart enough to adopt them because digital can lower costs or facilitate price increases, or both. This was the case with CDs and the music industry in the 1980s and 1990s, with DVDs and the movie and television industries in the 1990s and early 2000s, and with digital 3-D and digital distribution to theaters for the movie business in the 2010s.

But once digital starts to bypass physical objects (like CDs and DVDs) and enable direct online distribution via downloads and streaming, these advantages can quickly vanish. When CD sales collapsed, for example, sales of recorded music fell by half – and not just because of piracy.

This is currently happening with home video. A decade ago, home video provided half of Hollywood's profits. But DVD sales peaked in the United States in 2006, and in 2007 the number of households with broadband Internet access passed 50 percent. As people realized that it's cheaper and easier to stream than to own, they began to forsake $15 DVD purchases from Blockbuster Video (now defunct) in favor of $3 rentals from Amazon and iTunes, or all-you-can-watch binges from Netflix.

In response, studio executives have attempted to mitigate their exposure by making huge bets on properties they perceive as low risk. Since they lack any real data about audience tastes, this generally means retreads of whatever worked in the past. The magic word is "pre-awareness" – a quality possessed by Batman and Spider-Man and anything else the audience already knows about, as opposed to an original idea. Sometimes this works: *Fast*

Much of the success that Hollywood has enjoyed with its blockbuster strategy is a function of circumstances unique to the movie business – the ever-growing sophistication of digital effects and the rise of the international box office.

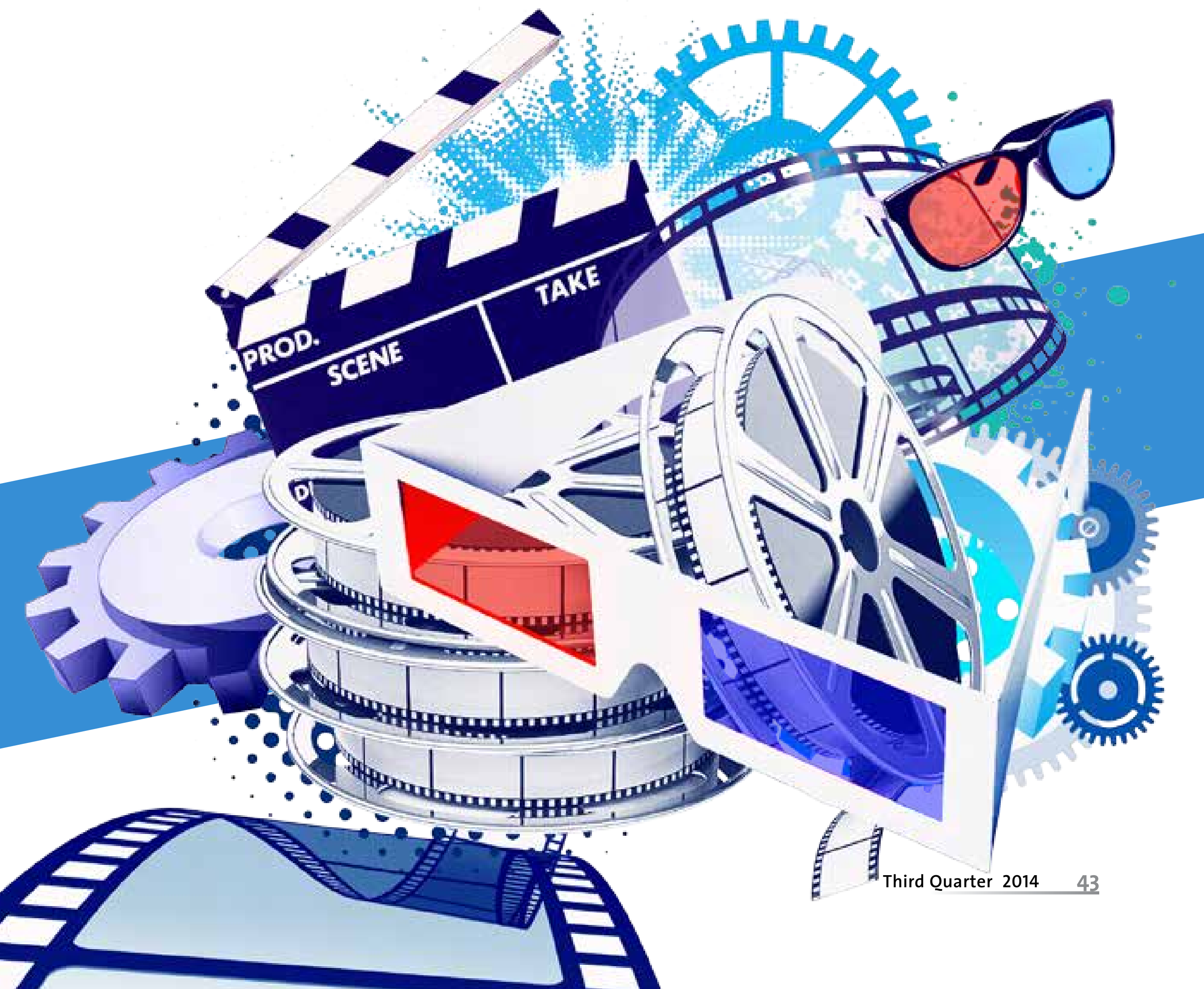
& Furious 6, *Iron Man 3*, *Despicable Me 2*. With *The Hangover Part III*, not so much.

In other respects, however, Hollywood is still on the golden side of digital. The studios are saving on distribution costs because it's far cheaper to send files to movie theaters electronically than it is to reproduce and deliver reels of film. At the same time, theaters have been able to charge more for tickets – in the case of 3-D, significantly more. And while the elaborate digital effects so typical of blockbusters cost plenty of money, they also serve as a powerful draw to audiences and as an even more powerful barrier to entry. As Alan Horn, now chairman of Walt Disney Studios, remarked to Elberse: "Very few entities in this world can afford to spend $200 million on a movie. That is our competitive advantage."

Nonetheless, a deep-seated malaise has gripped the industry. The collapse in DVD sales has everyone spooked. And the relentless focus on blockbusters has demoralized even moviemakers as big as George Lucas and Steven Spielberg. As Lynda Obst, producer of the 1993 hit *Sleepless in Seattle* and now author of the book *Sleepless in Hollywood*, said in a recent interview: "All formulas will only work for a while. How many times can you see the same cities destroyed? How many ways are there to destroy them?"

Last year, even the geeks at Comic-Con, the annual comics convention that the studios

SEAN MCCABE



have turned into a Cape Canaveral for blockbusters, were said to be disappointed by the sameness of the fare at hand. Far from a savvy game plan for the digital future, Hollywood's embrace of the blockbuster appears to be the last-ditch strategy of an industry on the verge.

JUSTIN TIMBERLAKE, MEET MICHAEL JACKSON

At least people are still buying movie tickets. Not quite as many as before – in the United States and Canada, anyway, where annual per-capita sales fell from 4.9 in 2003 to 4.1 in 2012. But ever-rising ticket prices and the still-growing international market are making up for that. The same cannot be said for books, recorded music and most other media. Across the board, "blockbusters" are almost never what they used to be.

Take Justin Timberlake's *The 20/20 Experience*, which according to Nielsen SoundScan was America's best-selling album of 2013 – even though it sold only about 2.4 million copies, making it the smallest best seller since SoundScan began in 1991. Timberlake's was the only album to crack the two million mark last year. Adele had a truly outsized success in 2011 and 2012 with *21*, which sold more than 10 million copies to become the top-selling album for both years running. During that same period, however, only three other albums topped two million. In fact, of the 20 best-selling albums, according to SoundScan, Adele's was the only one to come out after 2004 – and it didn't begin to compare in sales with albums released in earlier decades by Michael Jackson, the Eagles, Led Zeppelin or AC/DC, even though the U.S. population has grown by a quarter since 1991. Globally as well, Adele was far outsold by earlier stars.

Album sales have been hit particularly hard in recent years because people downloading from iTunes and the like tend to cherry-pick individual songs – a prime example of "unbundling," which is one of the signature effects of digital. So perhaps we should look at songs, as Elberse does in *Blockbusters*. Examining the SoundScan numbers for 2007, 2009 and 2011, she finds a pattern of increasing dominance by a tiny percentage of superhits.

In 2007, of the 3.9 million tracks sold, fewer than 0.001 percent sold more than a million copies, while a remarkable 91 percent sold fewer than 100. Two years later, 6.4 million tracks were sold; this time, a little over 0.001 percent sold more than a million copies – but that tiny percentage made up 12 percent of the total sales volume, even more than the 7 percent in 2007. And of the eight million tracks sold in 2011, again 0.001 percent sold more than a million copies, this time accounting for 15 percent of total sales. Meanwhile, at the other end of the chart that year, 94 percent sold fewer than 100 copies and fully 32 percent sold just a single copy. So much for the long tail. "It is staggering to see how few titles at the top contribute to a significant portion of sales," Elberse declares, "and how many titles at the bottom fail to do the same."

That's one way of looking at it. But in focusing on the lack of promise in the long tail, Elberse misses another pattern entirely. As the total number of single songs on sale grew from 3.9 million to 6.4 million to 8 million, the number that sold more than a million copies went up at an even greater rate, from 36 to 79 to 112. At the same time, the average number of copies that each song sold actually fell slightly. In other words, a growing supply of songs produced a growing number of hits, even as the average size of those hits declined. The tail got a great deal longer and flatter, but the head did not get commensurately taller and thinner. Except for a couple of outliers like Adele, it actually got a bit shorter and wider.

House of Cards is, in fact, the media property that most plausibly suggests a blueprint for the digital future.

SEAN MCCABE

In television, this is even more apparent. The percentage of TV households tuned to the season's top series has been dropping at least since the 1960s. NCIS, the top-rated show of the 2012-13 season, had roughly half the 36 rating that *The Beverly Hillbillies* enjoyed in 1962-63. It didn't even rise to the level of *The Flintstones*, a middling hit a half century before. And the shows that have people talking about a third golden age of television, as the medium's current creative renaissance has been dubbed (with cable series like AMC's *Mad Men*, Showtime's *Homeland* and HBO's *Girls*) pull in far fewer viewers than that. Only AMC's *The Walking Dead* gets ratings big enough to rival even the slimmed-down hits on broadcast television today.

So while the top of the curve is still where the money is, the pattern does not conform to the prediction that the Internet will lead to ever-bigger blockbusters. We do indeed live in a winner-take-all economy, and electronic media certainly encourage the rise of global superstars. But that's as true of broadcast TV as it is of the Internet, as true of the Beatles as of Adele. As Internet usage takes hold, hits – even the superhits – appear to be shrinking in size and growing in number. Which raises an interesting question: if neither the blockbuster hypothesis nor the long-tail theory holds, then what?

DATA IS THE NEW GUT

Elberse argues in *Blockbusters* that Netflix, the Silicon Valley outfit that once "took pride in calling itself a long-tail company," has started "acting more like an old-school television network" by producing expensive, star-laden series like *House of Cards*, the Kevin Spacey-Robin Wright vehicle that won three Emmys in its first season. True, there's nothing small about *House of Cards*, but there's nothing old-school television about it either. Neither long tail nor blockbuster, *House of Cards* is, in fact, the media property that most plausibly suggests a blueprint for the digital future.

In broadcasting, as in Hollywood, the key decisions have always been made by people acting more on instinct than information. In the old days, when the entertainment industry was run by showmen (women didn't get to run things back then), that meant they went with their gut – a phrase that gained resonance with the discovery that the intestine is lined with about 100 million neurons. But the MBAs who run movies and television today are expected to base their decisions on something more reliable, more quantifiable or at least more professional-sounding than their digestive tracts.

Unfortunately, that doesn't leave them with much. So they rely on formulas and sequels and "pre-awareness," and they give copious notes in an effort to smooth out rough edges and justify their own salaries, and they demand recuts and reshoots and sometimes entirely new endings on the basis of whatever feedback they get from test screenings. "You've got people who don't know movies and don't watch movies for pleasure deciding what movie you're going to be allowed to make," Steven Soderbergh declared in a State of the Cinema address at last year's San Francisco Film Festival, shortly before the debut of his celebrated Liberace biopic, *Behind the Candelabra* – on HBO.

Netflix doesn't employ such people. And far from using a blockbuster strategy, it relies on a data strategy. Unlike the movie studios and all but a handful of television networks, it has a direct relationship with its customers – 44 million subscribers worldwide who constantly feed it information about their likes, their dislikes and their viewing habits. Where a blockbuster strategy depends on mass appeal and instant success, a data strategy is targeted, specific, patient and "smart." Both aim to generate hits. But there, the similarities end.

With access to billions of data points, Netflix can build statistical models to produce a risk profile of any show it might want to license or produce based on such variables as genre, subject matter, stars and Emmy and Oscar wins. When the film director David Fincher was pitching *House of Cards*, a remake of a BBC political drama in which Spacey would play a scheming congressman, Netflix's chief content officer, Ted Sarandos, knew how many subscribers had watched the original, how many had watched *The West Wing*, how many liked David Fincher movies and how many were Kevin Spacey fans. This enabled Sarandos – a college dropout who got his start running a mom-and-pop video store in a Phoenix strip mall in the 1980s – to do what no television executive ever had: offer a reported $100 million for two 13-episode seasons without even asking for a pilot. Then, in

SEAN MCCABE

It's reckless to market a film with minimal understanding of the market, little faith in the people who actually create the stuff, a naïve conviction that whatever worked in the past will continue to work in the future, and the false sense that audiences will grow ever larger.

an appeal to audiences' demand for control and a growing appetite for binge viewing, he released each season's episodes all at once.

Nielsen doesn't measure Netflix streams, but Procera, a company that works with broadband providers to enhance network performance, estimates that when the second season was made available last February, as many as five million subscribers watched at least one episode during the first weekend and more than 500,000 of them gulped down the whole thing. Five million people is less than a quarter of the viewership CBS gets for NCIS, but it's only a couple of million below the prime-time averages for ABC, NBC and Fox.

In any case, Netflix gets its revenue from subscribers, not advertising, and the buzz around *House of Cards* and other original shows like *Orange Is the New Black* has sent subscriber growth skyward. In 2013, only a couple of years after a misguided restructuring and price increase sent the company spiraling into a near-death experience, annual profit rose by more than sixfold.

Data has been central to the company's success. But it isn't just what Sarandos has done with all the information at his command; it's also what he hasn't done. Having decided that the combination of elements in *House of Cards* would work, he gave total creative freedom to Fincher and his partners.

"Netflix was the only network that said, 'We believe in you,' " Spacey declared in the MacTaggart Lecture he delivered at last summer's Edinburgh Television Festival, the annual confab for UKTV. He contrasted this with a 1980 NBC memo that's quoted in *Difficult Men*, a book on the producers who are driving television's current creative renaissance. The memo summed up the reaction in focus groups to the pilot for *Hill Street Blues*, the landmark series that was about to kick off the second golden age of television: " 'The most prevalent audience reaction indicated that the program was depressing, violent and confusing.' … 'Too much was crammed into the story.' … 'The main characters were perceived as being not capable and having flawed personalities. Professionally, they were never completely successful in doing their jobs and personally their lives were in a mess.' … 'Audiences found the ending unsatisfying. There are too many loose ends.' "

Fortunately for NBC, the showrunner, Steven Bochco, had been guaranteed autonomy. After a slow start, *Hill Street Blues* went on to win multiple Emmys and become one of the most popular and influential TV dramas of the 1980s. As Spacey declared in his talk, "It's the creatives, stupid."

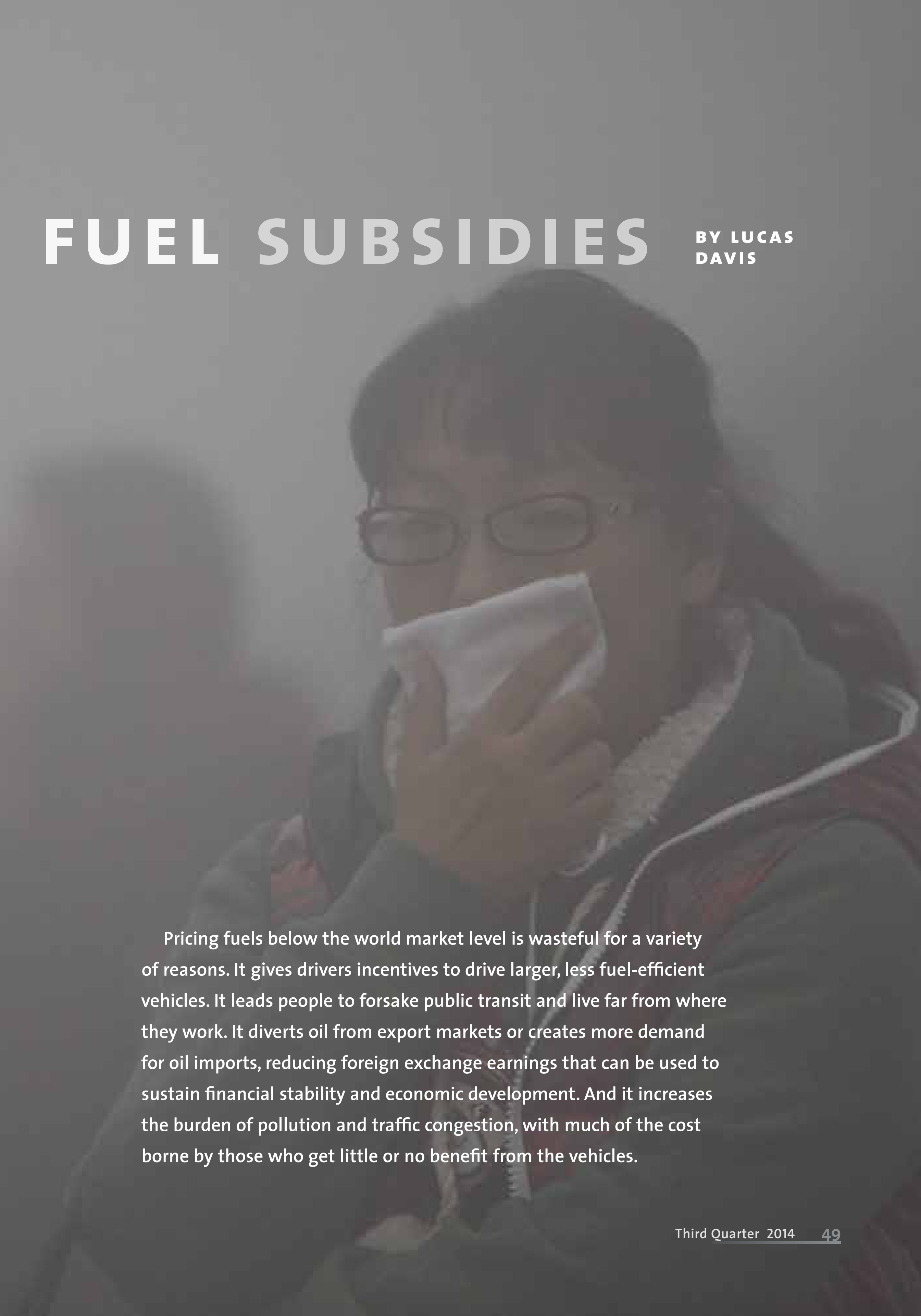
THE UNPREDICTABLE BUSINESS OF ENTERTAINING HUMANS

Hits are hits, and we all want more of them. But the blockbusters we have today are not smart, in any sense of the word. The problem is not that it's inherently reckless to spend upward of $200 million to make and market a film, or even to do it over and over. Properly executed, in the current environment, this can be a formula for success, as Elberse demonstrates. The problem is that it's reckless to do it the way Hollywood does now – with minimal understanding of the market, little faith in the people who actually create the stuff, a naïve conviction that whatever worked in the past will continue to work in the future, and the false sense that audiences will grow ever larger.

To the frequent consternation of those who try to run it, the entertainment business is inescapably in the business of entertaining humans, a species that craves novelty as much as it craves spectacle – and one prone to sudden and unpredictable shifts in taste. Any theory that fails to take this into account is unlikely to survive the next cycle.

THE COST OF GLOBAL

Next year, global oil consumption is projected to reach 90 million barrels per day – up by about 17 percent since 2000 in spite of the fact that consumption has actually declined in advanced economies. That should not be surprising. Low- and middle-income economies from China to India to Peru have been playing catch-up for the past few decades, and hundreds of millions of people have been able to realize the dream of owning cars. But look a bit more closely and you see a darker side to this rush to mobility: in no small part, higher oil consumption reflects the fact that many countries subsidize the price of fuel at the pump.



FUEL SUBSIDIES

BY LUCAS DAVIS

Pricing fuels below the world market level is wasteful for a variety of reasons. It gives drivers incentives to drive larger, less fuel-efficient vehicles. It leads people to forsake public transit and live far from where they work. It diverts oil from export markets or creates more demand for oil imports, reducing foreign exchange earnings that can be used to sustain financial stability and economic development. And it increases the burden of pollution and traffic congestion, with much of the cost borne by those who get little or no benefit from the vehicles.

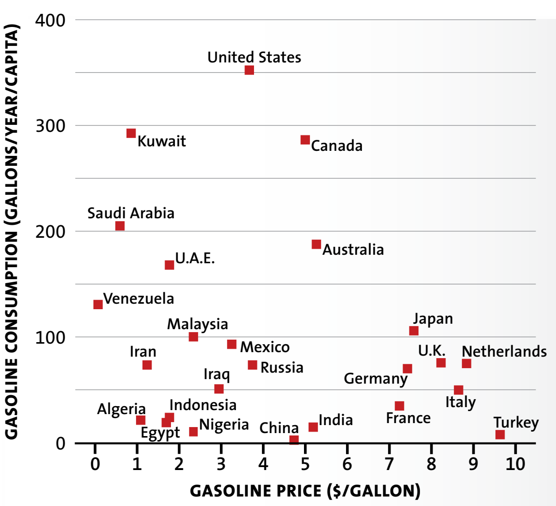
All this is widely known by economists who decry the inefficiency – the failure to get the maximum value in terms of investment and consumption – from available resources. And it is generally understood, too, by governments caught between reformers' urgent pleas for change and the well-founded fear that raising fuel prices is politically perilous. Here, I estimate what's at stake in purely economic terms, the loss in welfare and productivity worldwide that is the consequence of fuel price distortions.

PRICE AT THE PUMP

The figure below plots gasoline consumption per capita and gasoline prices for two dozen countries. This is the price that drivers paid at the pump in each (converted to dollars at current exchange rates) as of November 2012. Prices include all relevant taxes and subsidies.

What I find most striking is the enormous variation in prices. Gasoline averages $5.26 per gallon, but ranges from 9 cents a gallon (Venezuela) to more than $9 (Turkey). To be sure, some variation can be explained by differences in transportation, refining and distribution costs. But that covers just pennies per gallon, not dollars. One sees the same thing with diesel prices, which tend to be a bit lower, averaging $4.12, with a range from 4 cents to above $7.

GASOLINE CONSUMPTION AND PRICES WORLDWIDE, NOVEMBER 2012



SOURCE: World Bank

This wide variation is especially striking in light of the fact that the market for crude oil and refined petroleum products is global. It doesn't matter whether a country is an oil producer or whether it refines fuel within its borders. Since both crude and refined products are freely traded, the *opportunity cost* of fuel – what a country forgoes in internationally traded goods in order to consume an extra barrel – is similar everywhere.

The drivers of this wide variation in prices at the pump are taxes and subsidies. On one side, you have countries – including Britain ($8.20 per gallon), Italy ($8.63), the Netherlands ($8.82) and Turkey ($9.61) – that impose large gasoline taxes. Most economists support taxing gasoline to reflect the damage done by carbon dioxide emissions, local air pollution and other external costs of driving. But these countries' prices are much higher than estimates of the full societal cost of gasoline consumption. However, while the use of fuel as a tax cow is itself inefficient, our concern here is the subsidy side of the ledger.

Many countries subsidize gasoline and many more subsidize diesel. In these economies, fuels are sold below the international market prices. Most of them are in the Middle East (and, by no coincidence, are oil exporters). But Asia (Malaysia, Indonesia), Africa

LUCAS DAVIS is the Harold Furst professor of management philosophy and values at the Haas School of Business at the University of California, Berkeley. A more technical version of this analysis was published in the *American Economic Review: Papers and Proceedings*.

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Expenditures on energy subsidies in many countries exceed public expenditures on health, education and other key components of government spending.

(Egypt, Nigeria, Algeria) and South America (Venezuela, Ecuador, Bolivia) are also in the group.

IMPACT ON GOVERNMENT BUDGETS

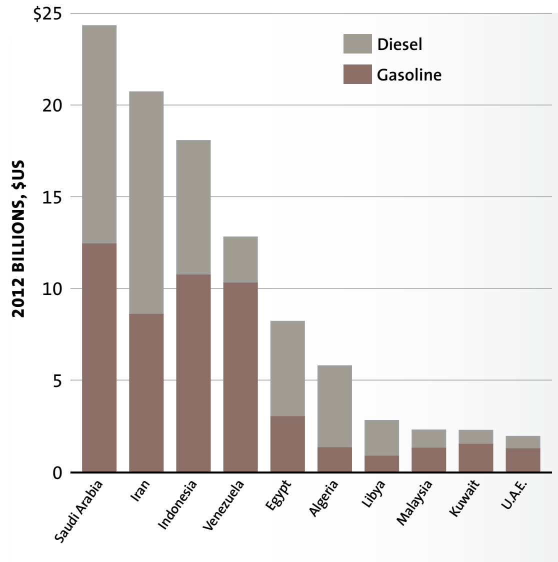
The figures to the right show the countries with the largest fuel subsidies. These dollar amounts were calculated as the difference between the price at the pump and the price of fuels in international markets. For example, the price of gasoline in Iran (in 2012) is $1.25 per gallon, compared with about $3 in global markets, for a subsidy of $1.75 per gallon.

Subsidies worldwide totaled $110 billion, with about $55 billion each for gasoline and diesel. These top 10 countries represent 90 percent of total global subsidies. The big four are Saudi Arabia, Iran, Indonesia and Venezuela, with Saudi Arabia alone providing subsidies of almost $25 billion annually in a country of just 30 million people.

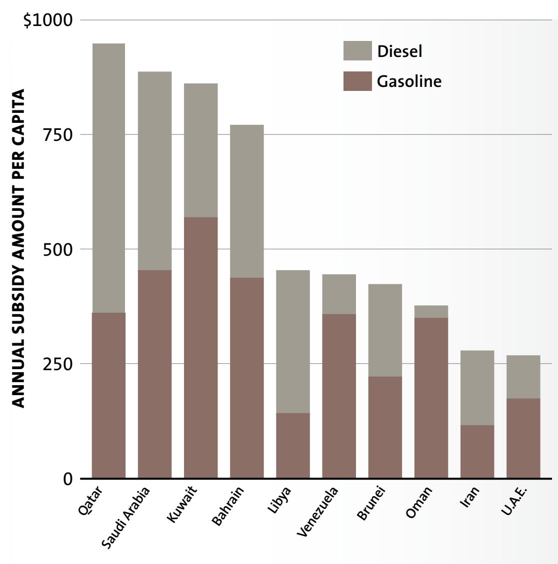
The subsidies have an enormous impact on government budgets, requiring taxes to be higher than they would otherwise be, and inhibiting the ability of governments to address other fiscal objectives. We are talking big numbers here: expenditures on energy subsidies in many of these countries exceed public expenditures on health, education and other key components of government spending.

Saudi Arabia remains near the top of the list in terms of subsidies per capita at $885 annually. But the list is augmented by several smaller Middle Eastern countries, including Qatar, Kuwait and Bahrain. Fuel subsidies have long been viewed in many oil-producing countries as a way to share the wealth with their citizens. This is not the approach in all

ANNUAL FUEL SUBSIDIES, TOP 10 COUNTRIES



ANNUAL FUEL SUBSIDIES PER CAPITA, TOP 10 COUNTRIES 2012



major oil-producing countries, however. Prices are at or above the market level in Iraq ($2.95 per gallon for gasoline), Mexico ($3.26), Russia ($3.74) and Canada ($5).

It's not hard to explain why oil-rich countries sell fuel domestically below the world market price. For one thing, there is typically strong popular sentiment to share the bounty directly. For another, many of these countries set domestic fuel prices when oil was selling for far less and were reluctant to raise prices thereafter.

But to free-market economists, this idea of using prices to distribute resource wealth doesn't make much sense. After all, there are alternative approaches for resource-sharing that don't distort incentives for their use.

Residents of Alaska, for example, receive an annual dividend ($900 in 2013) derived from oil and gas revenues, but pay gasoline prices above the U.S. average. Note that, whereas cheap gasoline leads to more consumption, the Alaska Permanent Fund Dividend is a lump sum payment that is in no way tied to personal consumption. It may, on the margin, make people more likely to move to Alaska or to stay there once they arrive. But it doesn't encourage overconsumption of energy.

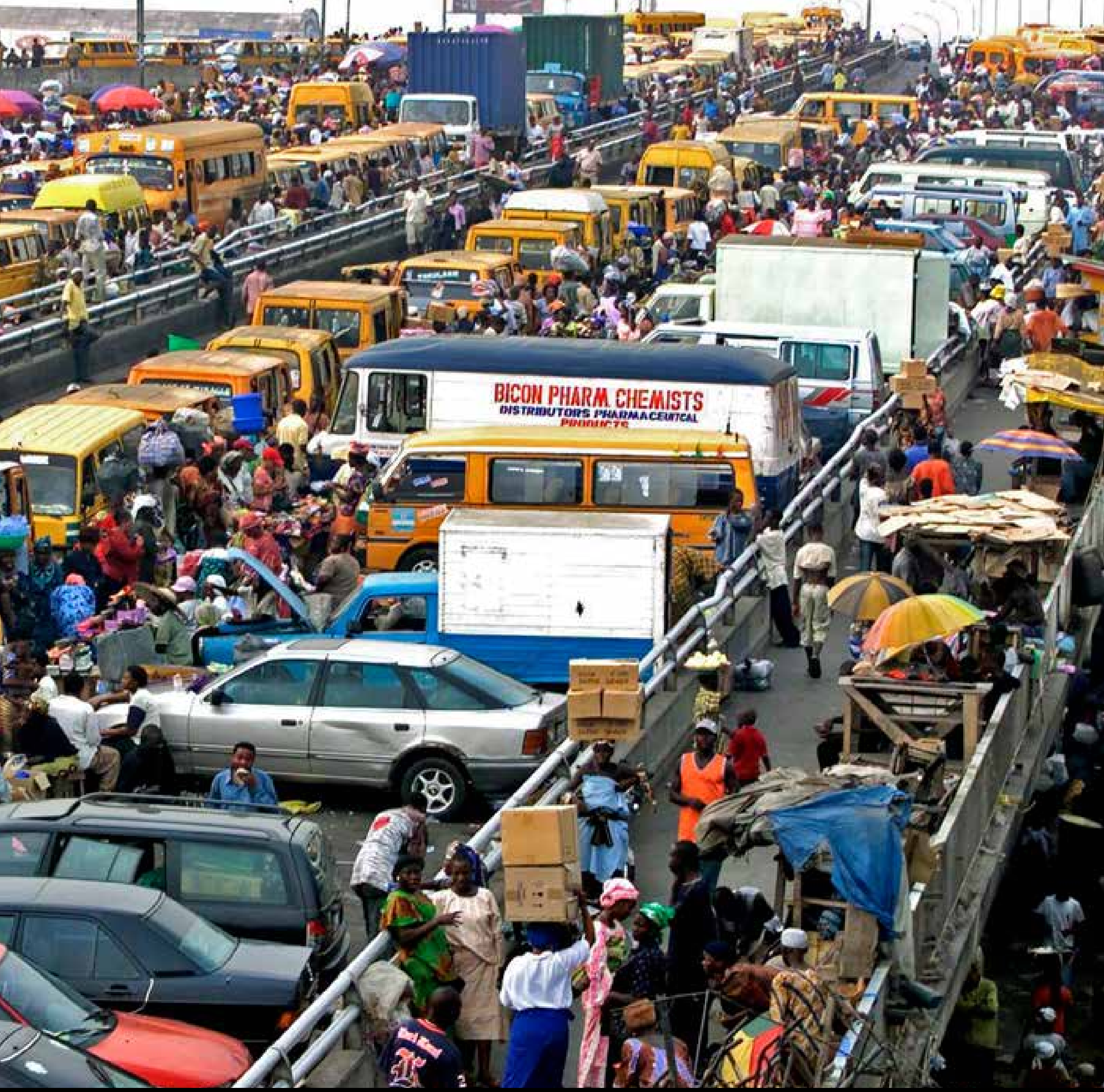
GLOBAL GAS GUZZLERS

The problem with cheap gasoline is that it causes people to own cars that burn more fuel per mile and to drive them too much. Studies show that the magnitude of this distortion is large. Saudi Arabia, for example, has experienced a ninefold increase in fuel consumption since the early 1970s and is now the sixth largest oil consumer in the world. This is remarkable, given that Saudi Arabia is 43rd in terms of population.

Venezuela is another striking example. Venezuela has the cheapest gasoline on the planet, 9 cents per gallon for gasoline in 2012 (and even less at current exchange rates). This is not a typo: the price of gasoline in Venezuela is about one-fiftieth of what I pay in California. Venezuela's gasoline is so cheap it makes Middle Eastern gasoline look expensive.

Venezuela, moreover, is one case where the cost to the government treasury is quite direct. The country doesn't have enough refin-

EPA/ONOME OGHENE

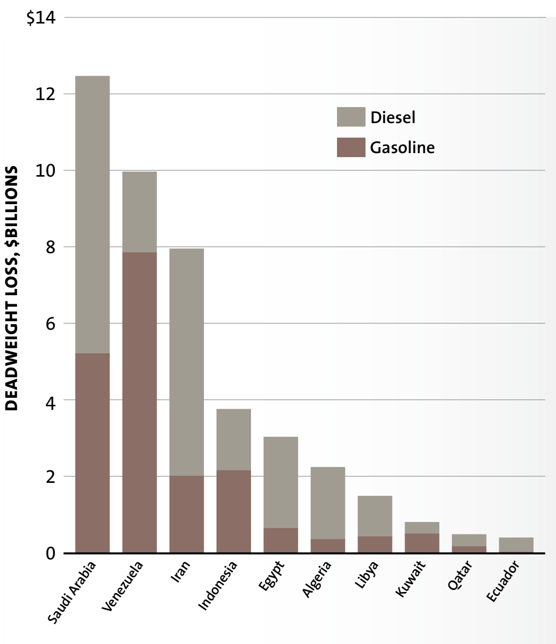


Rush hour on the Iddo bridge in Lagos, Nigeria

ing capacity to meet domestic demand for gasoline, so it exports crude oil and then imports gasoline. This means that the Venezuelan government pays about $3 per gallon for gasoline, only to turn around and sell it for a tiny fraction as much.

Not coincidentally, gasoline consumption in Venezuela is extremely high. Ecuador and Bolivia also subsidize gasoline, but not to anywhere near the extent. Mexico, after subsidizing fuels for many years, now has gasoline and diesel prices that are close to international market prices. And most countries in Latin America have substantial taxes on gasoline. As a result, gasoline consumption per capita in Venezuela is 40 percent higher than any other country in Latin America and more than three times the regional average.

**DEADWEIGHT LOSS FROM FUEL SUBSIDIES
TOP 10 COUNTRIES US $2012**



SOURCE: Author

Decades of subsidies have left Venezuela with one of the least fuel-efficient vehicle fleets in the world. When oil prices spiked during the 1970s, Venezuelans imported large numbers of large low-mpg cars, mostly from the United States. Many of these gas guzzlers remain in use today. Almost anywhere else in the world, these vehicles would have been scrapped long ago.

PURE WASTE

Fuel subsidies transfer income from the government (taxpayers) to drivers. But they also create economic waste – income nobody gets – because they enable transactions for which the buyer's willingness to pay is below the opportunity cost of the fuel. In other words, it costs more to provide the subsidy than the extra value created for the gasoline consumer. In Venezuela right now, there is someone – well, many people – driving around who value gasoline only slightly more than the minuscule price at the pump. Gasoline can be sold in international markets for about $3. So each time one of these drivers burns an extra gallon, the world (in this case, Venezuelans) becomes worse off by $2.91. Economists call this a "deadweight loss," in which, value is simply destroyed rather than transferred.

The total size of this deadweight loss depends on the elasticities of demand and supply – that is, how demand and supply respond to changes in fuel prices. For a subsidy of a given size, the more elastic the demand and/or supply, the larger the deadweight loss. These elasticities are thought to be small in the short run – drivers complain about price increases, but don't modify their behavior much on a week-to-week basis because of them. Most studies, though, have found that long-run elasticities are quite large. Given time, there are many ways for producers and consumers to respond to prices. In the case of consumers, the means are quite obvious: people buy more efficient cars, drive less or change their driving habits to burn less fuel.

The figure to the left shows the deadweight loss per country under typical assumptions about these elasticities. The total global deadweight loss from fuel subsidies is $44 billion. This is split roughly evenly between gasoline ($20 billion) and diesel ($24 billion). Deadweight loss is concentrated among countries with the largest subsidies. The big two offenders, Saudi Arabia and Venezuela, represent about half of total global deadweight loss, while representing only one-third of the dollar value of subsidies.

OTHER PEOPLE'S PROBLEM

Fuel subsidies are different from subsidies in most other markets because of the substantial "external costs" of fuel use – costs borne indi-

Burning an effigy of then-Prime Minister Manmohan Singh during a protest against fuel price hike in Bhubaneswar, India

ASSOCIATED PRESS

rectly by those other than the drivers. Part of this is climate change associated with carbon dioxide emissions. Globally, more than one-third of energy-related carbon dioxide emissions come from driving.

But there are other important externalities too. Despite substantial improvements in emissions-control technologies, vehicles remain one of the main sources of local pollutants, emitting nitrogen oxides (which cause smog) and particulates (i.e. soot, which damages lungs). Driving also causes traffic congestion and accidents, two externalities that impose hundreds of billions of dollars in costs annually in lost time, property loss and injuries. Note, moreover, that traffic death rates tend to be relatively high in high-subsidy countries, where the growth in vehicle use has far outpaced growth in road infrastructure. Venezuela's death rate from road accidents is eight times higher than Germany's and nearly four times higher than in the United States.

Refining these estimates of external costs is an important area of research because it is so closely tied to the quality of life in developing countries and the pace of global climate change. A team from the International Monetary Fund is calculating country-specific estimates of external damages for 140 countries; this is due to be released later this year. But preliminary results have been published

Demonstrators protest a recent price hike by Shell in Buenos Aires, Argentina

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and, not surprisingly, show large variation in damages across countries. This reflects, for example, differences in traffic congestion between countries with large urban populations and those without. The overall level of damages tends to be high, however, typically well exceeding $1 per gallon.

By my calculations, subsidies lead to fuel consumption of about 30 billion more gallons per year than it would otherwise be. At $1 per gallon, this excess consumption imposes external costs of $30 billion annually. Combined with the estimated deadweight loss ($44 billion), the total economic cost of fuel subsidies is about $74 billion annually. While undoubtedly these calculations could be refined substantially, they make it clear that subsidies are a major source of waste that is concentrated in a handful of economies.

SUBSIDY REFORM

Subsidy reform is difficult. Nigeria and Jordan, for example, were forced to withdraw reforms when confronted by street mobs. And one reason that Egypt's democratically elected government made little headway with the country's dire fiscal problems is that it feared the consequences of fuel subsidy reform: back in 1977, an attempt by Anwar Sadat was aborted after 160 people died in riots.

But it is not impossible. In 2011, Iran, its back to the wall because of economic sanctions, managed to phase in higher fuel prices by compensating lower-income households with cash subsidies. And in 2013, Indonesia took a major step forward by increasing gasoline and diesel prices by 75 cents per gallon. Prices remain well below the market level, however, and Indonesia is still a net importer of gasoline. But the increase was certainly a victory for good government over populist rhetoric.

The Indonesian reform worked while previous attempts had not because the public had grown to understand how dire the situation had become. Fuel subsidies in Indonesia

The financial security of middle-income households, who do bear most of the cost, is often a flashpoint for broader discontent with corrupt, inefficient government.

cost the government $18 billion in 2012; this was 2 percent of Indonesia's GDP and a whopping 11 percent of the country's total government budget. Only Saudi Arabia and Iran spent more on subsidies in 2012.

The Indonesian government was also clever in how it implemented the reform. At the same time that fuel prices were allowed to rise, the government rolled out a substantial increase in financing for welfare programs. The commitment increased public acceptance for the reform by mitigating the distributional impact for the poor.

This approach to reform makes a great deal of sense and has been used with some success elsewhere (as in the case of Iran). The key is government credibility. If Indonesians had not believed the government's commitment to fund cash transfers to those who could least afford higher fuel prices, the initiative probably would not have stuck.

THE TRAP

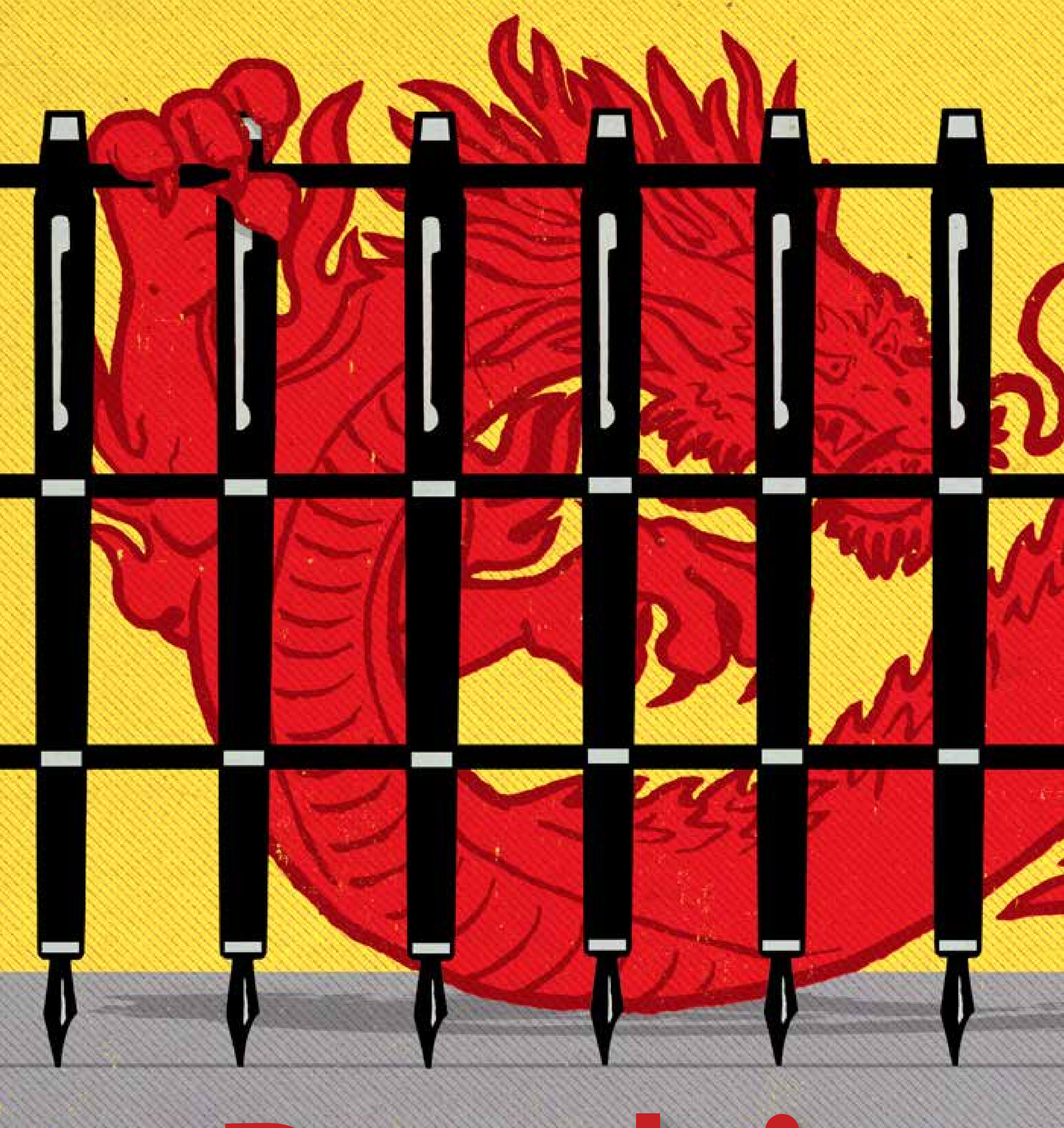
The temptation to subsidize fuel is clear – especially for oil-exporting countries. The oil is generally viewed as part of the national patrimony, and, as such, citizens "deserve" a share, delivered at the cost of production. But the cost of lifting, refining and delivering the oil is typically far below the value of the oil in world markets, where price is determined by supply and demand.

When local demand was modest relative to production, the inherent inefficiency could be overlooked, and it generally was. But demand has crept up, as consumers responded to both growing income and the incentives to buy gas-guzzlers and drive them a lot. Once in, of course, it is hard to get subsidies out. Prices at the pump are highly visible. And while relatively little of the burden of price increases is typically borne by the poor, it is easy to exploit for political purposes. Note, too, that the financial security of middle-income households, who do bear most of the cost, is often a flashpoint for broader discontent with corrupt, inefficient government.

But get them out they must. Fuel subsidies effectively drain away foreign exchange earnings that are critical to broader economic development, and absorb ever larger shares of government budgets. What's more, they reduce the quality of life for many by feeding traffic congestion and local air pollution. After numerous failures, the elements of a successful strategy are emerging. One key is to include cash transfers to buffer the impact without distorting incentives to consume fuel. Another is to explain why eliminating subsidies is so important to the long-term health of the economy.

Yet another is to blame external forces for the necessity of change, implying that the government had no choice in the matter. The IMF has traditionally played this bad-cop role, making loans to distressed economies contingent on progress toward raising energy prices. Of course, this can be problematic because it gives the government's opponents a way to tar rulers as subservient to foreigners.

Plainly, the process is too painful in most countries to be attempted before the onset of crisis. But it will happen. As Herb Stein, President Nixon's chief economist, allegedly put it, "If something cannot go on forever, it will stop."



Breaking

How the Trans-Pacific Partnership Could

Through

Reshape the Global Economy

BY LYDIA DEPILLIS

Even now, six years after the United States entered the negotiating fray, it's likely that more Americans speak Urdu than have heard of the Trans-Pacific Partnership. That shouldn't be much of a surprise; the partnership, a far-reaching trade deal, has floated for years in a realm of wonk-speak beyond the competence of all but the most motivated observers. And yet it's poised to reshape how the international economic system functions, creating a host of winners and losers.

Indeed, the TPP is the most ambitious trade agreement the United States has ever negotiated, in the fastest-growing region of the world. The small print could lead to economic and political changes that will ripple all around the Pacific Rim in decades to come.

MYSTERY TREATY

This, of course, is hardly the first time that a prospective international agreement with profound economic implications has slipped under the radar. Trade talks are nearly always conducted in secret, with copies of the draft text available on a read-only basis to elected officials upon request. That's because – at least according to game theory – the parties wouldn't be able to negotiate in good faith if the public were looking over their shoulders all the while.

This time, however, the secrecy has generated a lot more concern among the Washington-based activist set than previous trade deals. In part, that's because a couple of core liberal constituencies – labor and environmental groups – are reeling from two decades of trade agreements that have pried open America's economic borders, reducing tariffs and giving U.S. corporations nearly unfettered access to markets overseas. Another Nafta or Cafta (Central American Free Trade Agreement) could, once again, disrupt the prospects of American workers, skilled as well as unskilled.

But there's another reason that the backroom nature of the negotiations has made people worry: the TPP is not a traditional trade deal. More than eliminating tariffs – which are mostly pretty low anyway – it takes on a host of impediments to economic integration, ranging from diverging safety standards to lax intellectual property protection. It's just as much a tool of domestic reform and an exercise in geopolitics as it is an agreement on the terms of global commerce.

The small print could lead to economic and political changes that will ripple all around the Pacific Rim in decades to come.

The very comprehensiveness of the topics covered in the TPP explains in part why negotiations have stuttered along for five years, over 18 rounds of talks. There are now 12 parties to the talks, nations that collectively account for 40 percent of the world's GDP and exchanged some $1.8 trillion in goods and services among them in 2012. The latest economic impact studies conclude that the TPP could increase U.S. exports by about $120 billion per year and expand U.S. access to roughly 800 million consumers.

By now, most policy issues have been resolved, but the most contentious have yet to be sorted out. The negotiations were supposed to have concluded by the end of 2013, and the new target is the end of 2014. After that, each country's government must deal

LYDIA DEPILLIS is a reporter for *The Washington Post* covering business policy and international trade.

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with legislators to get the treaty ratified. In some places, that amounts to a rubber stamp. In others – including the United States – it will be anything but.

FROM LITTLE ACORNS

Southeast Asia, seat of the modern miracle of export-led growth, isn't exactly new to the idea of trading partnerships. The United Nations-administered Asia-Pacific Trade Agreement has been around since 1975. Lots of business is sorted through groups like the Association of South East Asian Nations and the Asia Pacific Economic Cooperation forum (APEC). And there are dozens of bilateral agreements among Asian countries. Then, too, most countries in the region are members of the World Trade Organization, which brought down many barriers starting in the 1990s.

The TPP, however, arose in part out of a sense that none of those went far enough. In particular, the WTO's so-called Doha Round of trade liberalization, meant to assist developing nations around the world, wasn't progressing on schedule and now appears irretrievably stalled. So in 2003, Chile, Singapore and New Zealand conceived of an economic partnership as a step toward tighter Pacific integration; Brunei opted in shortly thereafter. In the fall of 2008, President Bush announced the White House's intention to participate as well, and the newly elected Barack Obama decided to stay the course.

U.S. involvement significantly raised the profile – and potential – of the pact. Other countries quickly joined. First, Vietnam, Peru and Australia; then, Malaysia, Canada and Mexico. Most recently, Japan decided to come on board. This expanded the scope as well as the potential complications, given the grip of protectionism in Japan's domestic politics. South Korea is now wondering whether it can afford to remain aloof.

Joining the TPP negotiations is no small undertaking. The founding parties insisted that it be a "high standards" agreement, one targeting tough issues like cross-border access for agriculture and uniform treatment of the state-owned companies that many Asian nations have used to guide their economies. Because of this, several potential partners have a long way to go before they can be considered for membership. Taiwan, for example, is attempting extensive domestic reforms – breaking down barriers to foreign investment and extracting the government from its involvement in large industrial sectors – in order to prove itself worthy of inclusion in the next round. In that way, the TPP has already had an impact, even though the treaty faces considerable time and effort before it is law.

LINCHPIN IN THE PIVOT TO ASIA?

Trade pacts used to be about just that: trade. The conventional wisdom today, though, is that their primary function is to give integration-minded governments the leverage to confront parochial domestic interests, while the second most important function is positioning a country for maximum geopolitical advantage. With the TPP, that second aspect is all about China.

Beijing, after all, is East Asia's sun; even its most populous neighbors – India, Indonesia and Malaysia – ultimately travel in its orbit. China's influence comes not just from the magnitude of its imports as the hemisphere's biggest consumer market, but also its massive foreign investment in real estate, energy production and infrastructure projects. This worries American strategists, who fear the United States will lose influence as the region becomes more dependent on Chinese buying power and capital markets.

President Obama, nervous about China's military buildup, announced a "pivot" toward

Asia in 2011. Since then, it has become apparent that his administration is reluctant to counter China's aggressive posture by repositioning American air and sea power, and that the White House is banking on the time it has spent sorting out the TPP to make up the substance of the shift in orientation. It can be a dangerous proposition for a small country in Asia to try to shield itself from China's influence – by taking measures to protect its intellectual property, for example. So creating a friendly alternative for trade and investment in other Pacific Rim nations may be the best way to reduce that risk.

Sometimes, the United States and its allies talk about bringing China into the deal, and Beijing itself suggested last year that it would explore the possibility. That may have been more rhetoric than reality, however, designed to ramp down tensions at stressful time for the Sino-U.S. relationship. In the wake of a subsequent APEC summit, the party-line *China Daily* newspaper offered a less friendly face, writing that the agreement was a way for the United States to "dominate economies" in Asia. Simultaneously, Beijing has proposed a "Regional Comprehensive Economic Partnership," which addresses many of the same issues as the TPP, minus a few of the more contentious agricultural provisions – and the United States isn't invited.

NAFTA ON STEROIDS?

By some measures, the proposed scope of the TPP eclipses that of the North American Free Trade Agreement; the Congressional Research Service estimates that the dollar value of U.S. imports and exports from the new trading bloc will be considerably greater than the levels attributable to Nafta. Accordingly, labor and environmental groups have charged that the TPP will have similar effects, sending jobs to cheaper jurisdictions overseas and allowing rapacious environmental behavior in the name of free trade.

It's difficult, though, to sort out the impact that Nafta has actually had on the U.S. economy. It did not trigger – but probably did accelerate – a shift from manufacturing toward service jobs, which manifested itself in more shuttered factories and gutted main streets in the Rust Belt and more growth in some states, including Texas and California. Nafta's environmental legacy is similarly mixed. The resulting boom in manufacturing in Mexico combined with ongoing laxity in the enforcement of environmental rules probably contributed to higher industrial pollution levels. One of the more subtle impacts – and one that will likely recur with the TPP – arose from additional authority for companies to sue governments over harm to their investments, which has often taken the form of allegedly discriminatory changes in environmental, health and safety regulations that raised business costs.

The U.S. Trade Representative promises that Nafta is not the model here – that the TPP will have higher standards and stronger safeguards. In particular, as with all trade agreements, the administration is committed to the standards laid out in the 2007 "May 10th Agreement," which cover a suite of labor rights and require adherence to seven major international environmental treaties.

The problem is, the United States may not be able to compel the large number of negotiating parties to the TPP to accept those standards. It had much more leverage in negotiating bilateral agreements with countries ranging from Colombia to Israel to South Korea. For example, the draft environment chapter of the TPP, made public by WikiLeaks, indicated that nearly every other country opposed the protections the United States was asking for, including legally binding pollution controls and limitations on logging.

CHANGE YOU CAN BELIEVE IN?

At this point, calling the TPP a "trade agreement" is really code for "ways in which governments will overhaul their domestic legal systems in order to facilitate international commerce." While the full contents of the agreement won't become public until the text is completed and put up for a vote among the parties, the major components belong in one of two buckets. The first is market access.

Who can sell how much of what

A fundamental goal of the TPP is complete elimination of some 11,000 tariffs. Although duties are already relatively low (ranging between zero and 10 percent on most products), there are still a few countries where phasing them out could significantly alter trading dynamics. Exhibit A here is Vietnam: tariffs on its textile and footwear exports are still around 10 percent, and clothing manufacturers would probably rush to set up shop in the country if they were lifted. To mitigate the cost pressure on American-based manufacturing, the United States is asking for rules that would require all the raw materials to come from countries within the pact – which is usually code for "not China," where inputs can be bought most cheaply.

Trade in services, like banking and insurance, is smaller than in manufacturing, but growing rapidly. Rather than tariffs, the services trade has been restricted by less quantifiable barriers like limitations on the number of firms from different countries that could operate domestically, or refusal to recognize foreign professional certifications. Historically, the United States' trade deals have

The U.S. Trade Representative promises that Nafta is not the model here – that the TPP will have higher standards and stronger safeguards.

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washed those away, allowing a level playing field for law firms, telecom providers, e-commerce companies and the like. Freer trade in services is likely to prove contentious for countries that typically regulate those industries for the purpose of protecting domestic jobs. The United States, moreover, is not entirely innocent in this regard, as government procurement policies discriminate against foreign suppliers.

The thorniest market-access questions, though, have to do with agriculture. Most parties to the TPP have potent farm lobbies, which demand unfettered access to other markets while maintaining protections against imports. The U.S. dairy industry, for example, wants to be able to sell milk products in Malaysia and Indonesia, but has opposed the New Zealand dairy industry's efforts to compete in the United States. Negotiations have been particularly difficult with Japan, which has traditionally regarded its meat, rice, wheat, dairy and sugar industries as sacrosanct.

Despite its ambitious goal of vaporizing barriers across the board, then, the market-access section will surely be rife with compromises, with countries trading a little more in one sector for a little less in another. Everyone's a hypocrite when it comes to the industries that grease the wheels of domestic politics.

There is one product that a number of countries would like to be able to restrict at will: tobacco, which, public health groups note, is the one substance that, if used correctly, eventually kills the consumer. A few countries are currently defending their smoking-deterrence laws against Philip Morris, which challenged them at the World Trade Organization. The TPP may give investors broader power to sue governments over laws that harm their interests, but tobacco is likely to be treated as an exception.

He who makes the rules

The next big bucket of issues is regulation. The TPP is full of technical provisions about how the treaty should be enforced and who has claims against whom. But these generally fall under the rubric of the enforcement of property rights – notably, intellectual property rights.

Start with the most important, at least among American corporations: pharmaceuticals. According to the Sunlight Foundation, a non-profit that promotes government transparency, the drug industry has filed two and a half times as many lobbying disclosure forms on the TPP than the automotive industry, which places second. That's because it has a lot to gain. Longer exclusivity periods on patents would allow drug companies to sustain profits from their blockbuster drugs in new markets, where they're most threatened by knockoffs and generics. U.S. negotiators have supported these requests while attempting to balance Big Pharma's interests against the need to preserve access to critical medicines in developing nations.

The other monster in the intellectual property box is the creative arts. The film and music industries have fought for strong enforcement of copyright protection through essentially whatever means are available. That has put them in conflict with the tech industry, which wants parties to agree to allow data to flow freely across borders. The tech lobbies would bar all forms of censorship, and also prevent countries from requiring data to be stored on local servers in order for people to access it, which some countries want in order to protect the security of their networks.

Another sticking point in negotiations is rules for government-owned enterprises. Even the United States has some of these – think Fannie Mae and, of course, the Postal Service. The degree to which the treaty will limit their behavior in international markets isn't clear. But there probably will be language establishing the principle (if not the reality) that they must compete on the same terms as their private counterparts.

Sometimes, barriers to trade aren't intended as protection, but are simply the by-product of the fact that dealing with multiple regulatory regimes raises business costs. One country, for example, might do safety certifications in a way that differs from another's, so that companies would have to jump through multiple sets of hoops, even if the targeted level of safety is identical. That's why the TPP asks countries to "endeavor" to align their business policies to eliminate redundancies, and also to set up bodies similar to the U.S. Office of Information and Regulatory Affairs to review the costs and benefits of new rules. All of it is voluntary, however, which means there's no telling whether it will make a difference in practice.

Some economists have argued that U.S. trade policy has been a primary driver of inequality, since it has encouraged the owners of capital to put it to work where labor is cheapest.

THE ECONOMIC IMPACT

Analyses of the TPP suggest that it would add quite a bit to U.S. GDP. The Peterson Institute for International Economics in Washington estimates U.S. income will increase by $78 billion per year under its assumptions about what the TPP will include, and $267 billion annually if free trade is expanded to the rest of the Asia-Pacific region. The Business Roundtable, which counts the nation's largest companies among its members and has been working hard to push the TPP forward, details the economic ties between the TPP countries and each U.S. state – though it stops short of putting dollar figures on the likely benefits. The Trade Representative is starting to stage events with trendy small businesses, highlighting how they would gain new access to foreign markets.

The more difficult and important analysis, however, is how those gains from trade would be distributed across the income spectrum. Some economists, most prominently the Nobel Prize winner Joe Stiglitz and Dean Baker of the Center for Economic and Policy Research, have argued that U.S. trade policy has been a primary driver of inequality since it has encouraged the owners of capital to put it to work where labor is cheapest. In the past, that has meant a loss of good manufacturing jobs, which have been replaced in part by lower-paying service jobs.

The Obama administration talks a lot about a manufacturing renaissance driven by cheap natural gas and the increasing risk of managing long global supply chains that run through unstable regions. But what competitive advantage the United States has built in this arena also depends on the fact that its labor costs, after two decades of wage stagnation, are now among the lowest in the developed world. Hence, the jobs to be created by the TPP are unlikely to pay the family-supporting wages they used to.

THE CONGRESSIONAL HURDLE

Even if the TPP negotiations reach the point where the 12 negotiating parties can live with what's in it, the hardest part still awaits:

convincing their legislative branches, many of which are undisciplined, interest-group ridden and highly partisan, to sign off on the whole deal.

Ratification will be as tricky in the United States as anywhere. The Constitution gives Congress the right of advice and consent on trade agreements. But to ease the process in recent decades, Congress has voluntarily tied its own hands by granting the President something called "trade promotion," or "fast track," authority, which is the right to an up-or-down vote on the treaty as negotiated by the administration. Fast track helps to solve the nearly intractable problem of managing special interest amendments, which at best would require renegotiation with other signatories or simply derail the effort.

But while the fast track changes the dimensions of the legislative hurdle, it doesn't finesse it entirely. The authority requires reauthorization, which gives Congress the chance to set up "negotiating objectives" that the administration commits to pursuing.

Fast-track authority expired in 2007; now that the TPP deal is almost done, time is growing short for Congress to resurrect it. That has created a weird moment in Obama World. Congressional Democrats are bucking a Democratic president, while establishment Republicans try not to look too cozy with the administration, even though their big-business backers desperately want them to cut a deal. Meanwhile, Tea Party elements of the Republican Party have joined with the populist, progressive left in charging that the White House is caving to corporate lobbies.

The Democratic Congressional leadership has officially opposed renewal of fast-track authority. But that's in part because these leaders are engaged in their own dance with the administration with the goal of minimizing the pain for organized labor and environmental groups without destroying the whole thing.

Negotiation objectives thus far have focused on requiring more consultation and transparency. The most substantive request – that the U.S. negotiators do what they can to address "currency manipulation" – would be a heavy lift in a treaty that's already so weighted with interest-group compromises that pieces of it are starting to break off on the margins.

Much is now leveraged on Congressional approval. From the beginning, America has been a driving force behind the deal. If it loses the will to finish it, the entire thing may fall apart.

NO TURNING BACK?

Watching from Singapore, one of the original four Asian countries to sign up for the TPP, the minister of law and foreign affairs, K. Shanmugam, recently delivered a message to the American people via a group of visiting journalists. "I think it's a little bit regretful that America, which was so confident in itself, so sure of its technological ability and ability to compete in the world, is beginning to be less confident," he mused. "When unemployment is high, it becomes politically attractive for some politicians to look at ways of cutting off from the world."

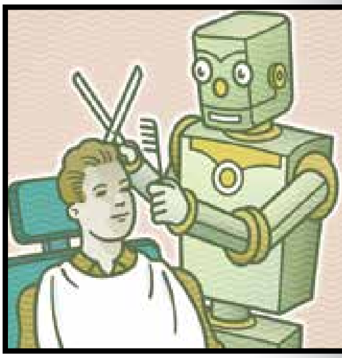
His follow-up was more admonition than lament: "The entire world has learned the lessons of free economics from the U.S. … Yes, there will be some pain." But what would the failure to ratify the treaty mean for U.S. leadership? "My message is really to the American public at large, that it is in their interest to see a deal through."

Of course, it's doubtful that the American public is listening. The unanswered question is whether their elected representatives are willing to accept the economic dislocation required of the global leader.

The Second Machine Age

BY ERIK BRYNJOLFSSON
AND ANDREW MCAFEE

On first look, *The Second Machine Age* might be mistaken for a slew of other books extolling technological change as the cure for much of what ails the global economy and polity. And indeed, the authors, Erik Brynjolfsson and Andrew McAfee, are card-carrying techno-boosters who can paint rosy pictures of our digital future with the best of them. ¶ But Brynjolfsson, an economist at MIT's Sloan School of Management, and McAfee, a principal research scientist at MIT's Center for Digital Business, are all too aware that the technology juggernaut has a way of making roadkill of those who don't remain a step ahead. In this jargon-free treatise, they assess the danger that high-speed technical change will leave us with a growing, ill-paid and unemployed underclass. ¶ You've probably read scary stories about what used to be called automation. But dollars to DRAMs, I'll bet you haven't read such a clear-eyed assessment of the risks. Check out the excerpt here – and then buy the book to find out what Brynjolfsson and McAfee propose to do about this looming problem. — *Peter Passell*



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> **"The test of our progress is not whether we add more to the abundance of those who have much; it is whether we provide enough for those who have little."** — *Franklin D. Roosevelt*

Consider the paradox: GDP has never been higher and innovation has never been faster, yet people are increasingly pessimistic about their children's future living standards. And no wonder; adjusted for inflation, the combined net worth on *Forbes*'s billionaire list has more than quintupled since 2000, but the income of the median household in America has fallen.

The economic statistics underscore the dichotomy of what we call the bounty of technology [the increase in volume, variety and quality, and the decrease in the cost of many products and services] and the spread [the ever-greater differences in material success among households]. The economist Jared Bernstein, a senior fellow at the Center on Budget and Policy Priorities, brought our attention to the way productivity and employment have become decoupled. While these two key economic statistics tracked each other for most of the postwar period, they diverged in the late 1990s.

Productivity continued its upward path as employment sagged. Today, the employment-to-population ratio is lower than any time in at least 20 years, and the real income of the median worker is lower than in the 1990s. Meanwhile, like productivity, GDP, corporate investment and after-tax profits are at record highs.

In a place like Silicon Valley or a research university like MIT, the rapid pace of innovation is particularly easy to see. Startups flourish, minting new millionaires and billionaires, while research labs churn out astonishing new technologies. At the same time, however, a growing number of people face financial hardships: students struggle with enormous debt, recent graduates have difficulty finding new jobs and millions have turned to borrowing to temporarily maintain their living standards.

Here, we'll address three important questions about the future of the bounty and the spread. First, will the bounty overwhelm the spread? Second, can technology not only increase inequality but also create structural unemployment? And third, what about globalization, the other great force transforming the economy? Could it explain recent declines in wages and employment?

WHAT'S BIGGER, BOUNTY OR SPREAD?

Thanks to technology, we are creating a more abundant world – one in which we get more and more output from less raw materials, capital and labor. In the years to come we will continue to benefit from things that are relatively easy to measure, such as higher productivity, and things that are less susceptible to metrics, such as the boost we get from free digital goods.

The previous paragraph describes our current bounty in the dry vocabulary of economics. This is a shame and needs to be corrected – a phenomenon so fundamental and wonderful deserves better language. "Bounty" doesn't simply mean more cheap consumer

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goods and empty calories. It also means more choice, greater variety and higher quality in many areas of our lives. It means heart surgeries performed without cracking the sternum and opening the chest cavity. It means constant access to the world's best teachers combined with personalized self-assessments that let students know how well they're mastering the material. It means that households have to spend less of their total budget on groceries, cars, clothing and utilities. It means returning hearing to the deaf and, eventually, sight to the blind. It means less need to work doing boring, repetitive tasks and more opportunity for creative and interactive work.

The manifestations of progress are all based at least in part on digital technologies. When combined with political and economic systems that offer people choices instead of locking them in, technological advance is an awe-inspiring engine of betterment and bounty. But it is also an engine driving spread, creating larger and larger differences in wealth, income, standards of living and opportunities for advancement. We wish that progress in digital technologies were a rising tide that lifted all boats equally in all seas, but it's not.

Technology is certainly not the only force causing this rise in spread, but it is the main one. Today's information technologies favor more-skilled over less-skilled workers, increase the returns to capital owners over labor, and increase the advantages that superstars have over everybody else. All of these trends increase spread – between those that have jobs and those that don't, between highly skilled and educated workers and less advanced ones, between superstars and the rest of us. It's clear from everything we've seen and learned recently that, all else equal, future technologies will tend to increase spread, just as they will boost the bounty.

The fact that technology brings both bounty and spread leads to an important question: since there's so much bounty, should we be concerned about the spread? We might consider rising inequality less of a problem if people at the bottom are also seeing their lives improve thanks to technology.

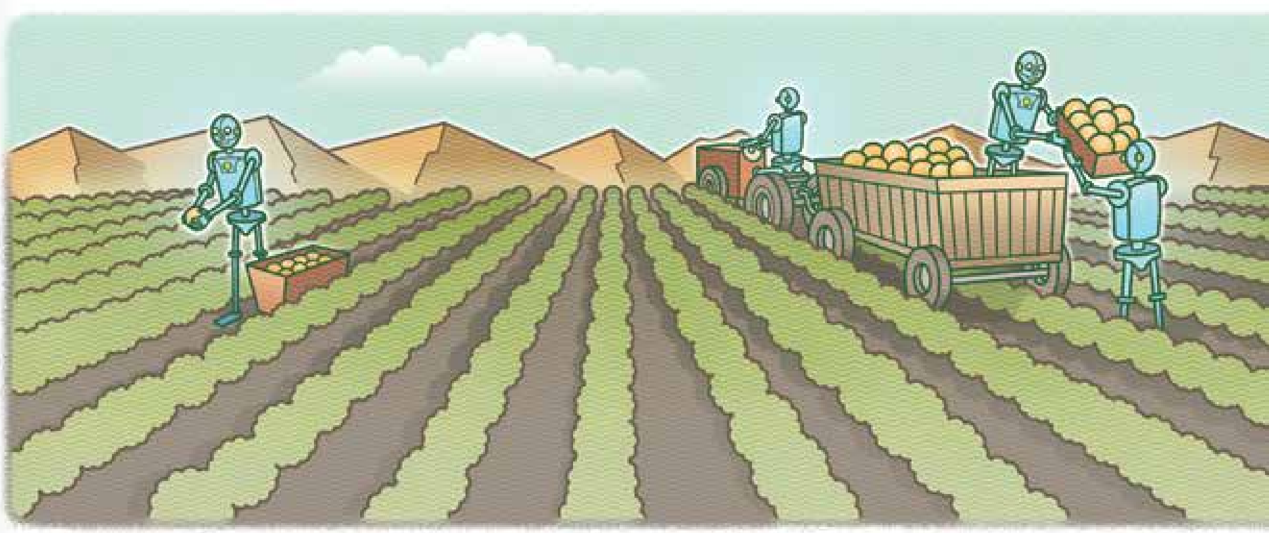
Some observers advance what we will call the "strong bounty" argument, which essentially says that a focus on spread is inappropriate since bounty is the more important phenomenon and exists even at the bottom of the spread. This argument acknowledges that highly skilled workers are pulling away from the rest – and that superstars are pulling so far away as to be out of sight – but then essentially asks, "So what?"

If all people's living standards are getting better, why should we be concerned if some are getting a lot better?" As Harvard economist Greg Mankiw has argued, the enormous income earned by the 1 percent is not necessarily a problem if it reflects the just deserts of people who are creating value for everyone else.

Capitalist economic systems work in part because they provide strong incentives to innovators: if your offering succeeds in the marketplace, you'll reap at least some of the financial rewards. And if your offering succeeds like crazy, the rewards can be huge. When these incentives are working well (and not doing things like providing risk-free rewards to people taking inappropriate risks within the financial system), the benefits can be both large and broad. Everyone benefits, even though not all benefits are distributed equally. As former Treasury Secretary Larry Summers put it, "We do need to recognize that a component of this inequality is the other side of successful entrepreneurship."

We particularly want to encourage entrepreneurship because technological progress typically helps even the poorest people. Innovations like mobile telephones, for example, are improving incomes, health and other measures of well-being in developing countries. As Moore's Law – the rule of thumb that data density in integrated circuits doubles approximately every 18 months – continues to drive down the cost and increase the capability of digital devices, the benefits they bring will continue to add up.

If the strong bounty argument is correct, we have nothing significant to worry about as



we head deeper into the second machine age. But it isn't. Many people are losing ground, not just relative to others but in absolute terms as well. In America, the income of the median worker is lower in real dollars than it was in 1999. And the story largely repeats itself when we look at households instead of individual workers, or total wealth instead of income.

Some proponents of the strong bounty argument believe that while these declines are real, they're still less important than the unmeasured price decreases, quality improvements and other benefits that we've been experiencing. Economists Donald Boudreaux (George Mason University) and Mark Perry (University of Michigan-Flint) write that:

> Spending by households on many of modern life's "basics" – food at home, automobiles, clothing and footwear, household furnishings and equipment, and housing and utilities – fell from 53% of disposable income in 1950 to 44% in 1970 to 32% today … [and] the quantities and qualities of what ordinary Americans consume are closer to that of rich Americans than they were in decades past. Consider the electronic products that every middle-class teenager can now afford – iPhones, iPads, iPods and laptop computers. They aren't much inferior to the electronic gadgets now used by the top 1% of American income earners, and often they are exactly the same.

These are intriguing arguments. We particularly like the insight that the average worker today is better off in important ways than his or her counterpart in earlier generations precisely because of the bounty brought by innovation and technology. For anything related to information, media, communication and computation, the improvements are so large that they can hardly be believed in retrospect or anticipated in advance. And the bounty doesn't stop there: technological progress also leads to cost reductions and quality improvements in other areas, such as food and power, that may not seem high tech on the surface but actually are when you look under the hood.

Nonetheless, we are not convinced that people at the lower ranges of the spread are doing OK. For one thing, some critical items that they (and everyone else) would like to purchase are getting much more expensive. This phenomenon is well summarized in research by Jared Bernstein, who compared increases in median family income between 1990 and 2008 with changes in the cost of housing, health care and college. He found that while family income grew by around 20 percent during that time, prices for housing and college grew by about 50 percent, and health care by more than 150 percent. Since

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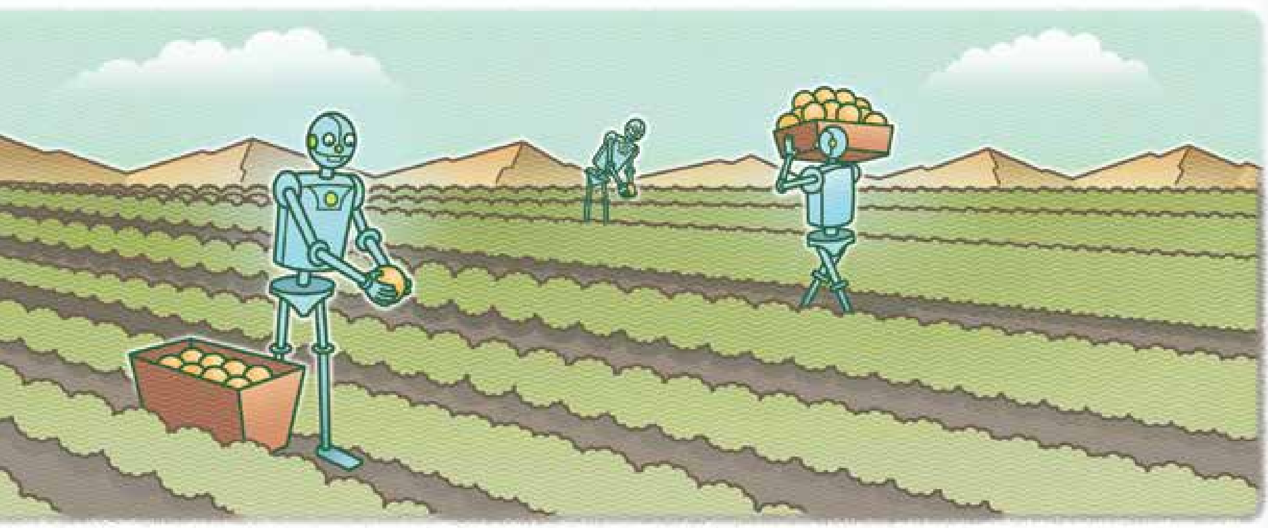


Americans' median incomes in real terms have been falling in the years since 2008, these comparisons would be even more unfavorable if extended.

However American households are spending their money, many of them are left without a financial cushion. The economists Annamaria Lusardi (George Washington University), Daniel Schneider (Princeton) and Peter Tufano (Oxford) conducted a study in 2011 asking people about "their capacity to come up with $2,000 in 30 days. And their findings are troubling. They concluded that:

> Approximately one-quarter of Americans report that they would certainly not be able to come up with such funds, and an additional 19 percent would do so by relying at least in part on pawning or selling possessions or taking payday loans.… [A] sizable fraction of seemingly 'middle class' Americans … judge themselves to be financially fragile.

Other data – about poverty rates, access to health care, the number of people who want full-time jobs but can only find part-time work, and so on – confirm that while the economic bounty from technology is real, it is not sufficient to compensate for huge increases in spread. And those increases are not purely a consequence of the Great Recession, nor a recent or transient phenomenon.

That many Americans face stagnant or falling incomes is bad enough, but it is now combined with decreasing social mobility – an ever lower chance that children born at the bottom end of the spread will escape their circumstances and move upward throughout their lives and careers. Recent research makes it clear that the American dream of upward mobility, which was real in earlier generations, is greatly diminished today. To take just one example, a 2013 study of U.S. tax returns from 1987 to 2009 conducted by economist Jason DeBacker and colleagues found that the 35,000 households in their sample tended to stay in roughly the same order of richest to poorest year after year, with little reshuffling, even as the differences in household income grew over time.

More recently, the sociologist Robert Putnam has illustrated how for Americans in cities like Port Clinton, Ohio (his hometown), economic conditions and prospects have worsened in recent decades for the children of parents with only high school educations, even as they've improved for college-educated families. This is exactly what we'd expect to see as skill-biased technical change accelerates.

Many Americans believe that they still live in the land of opportunity – the country that offers the greatest chance of economic advancement. But this is no longer the case. As *The Economist* sums up:

> Back in its Horatio Alger days, America was more fluid than Europe. Now it is not. Using one-generation measures of social mobility – how much a father's relative income influences that of his adult son – America does half as well as Nordic countries, and about the same as Britain and Italy, Europe's least-mobile places.

So the spread seems to be not only large, but also self-perpetuating. Too often, people at the bottom and middle stay where they are over their careers, and families stay locked-in across generations. This is not healthy for an economy or society.

It would be even unhealthier if the spread were to diminish the bounty – if inequality and its consequences somehow impeded technological progress, keeping us from enjoying all the potential benefits of the new machine age. Although a common argument is that high levels of inequality can motivate people to work harder, boosting overall economic growth, inequality can also dampen growth.

In their book *Why Nations Fail*, economist Daron Acemoglu and political scientist James

Robinson aimed at uncovering, as the book's subtitle puts it, "the origins of power, prosperity, and poverty." According to Acemoglu and Robinson, the true origins are not geography, natural resources or culture; they're institutions like democracy, property rights and the rule of law (or lack thereof) When they turn their attention to America's current condition, they offer important cautions:

> The U.S. generated so much innovation and economic growth for the last two hundred years because, by and large, it rewarded innovation and investment. This did not happen in a vacuum; it was supported by a particular set of political arrangements – inclusive political institutions – which prevented an elite or another narrow group from monopolizing political power and using it for their own benefit and at the expense of society.
>
> So here is the concern: economic inequality will lead to greater political inequality, and those who are further empowered politically will use this to gain greater economic advantage, stacking the cards in their favor and increasing economic inequality still further – a quintessential vicious circle. And we may be in the midst of it.

Their analysis hits on a final reason to worry about the large and growing inequality of recent years: it could lead to the creation of "extractive" institutions that slow our journey into the second machine age. We think this would be something more than a shame; it would be closer to a tragedy.

TECHNOLOGICAL UNEMPLOYMENT

We've seen that the overall pie of the economy is growing, but some people, even a majority of them, can be made worse off by advances in technology. As demand falls for labor, particularly relatively unskilled labor, wages fall. But can technology actually lead to unemployment?

We're not the first people to ask this question. In fact, it has been debated vigorously, even violently, for at least 200 years. Between 1811 and 1817, a group of English textile workers whose jobs were threatened by the automated looms of the first Industrial Revolution rallied around a perhaps mythical, Robin Hood-like figure named Ned Ludd, attacking mills and machinery before being suppressed by the British government.

Economists and other scholars saw in the Luddite movement an early example of a broad and important new pattern: large-scale automation entering the workplace and affecting wage and employment prospects. Researchers soon fell into two camps. The first and largest argued that while technological progress and other factors definitely cause some workers to lose their jobs, the fundamentally creative nature of capitalism creates other, usually better, opportunities for them. Unemployment, therefore, is only temporary and not a serious problem.

John Bates Clark (after whom the medal for the best economist under the age of 40 is named) wrote in 1915 that:

> In the actual [economy], which is highly dynamic, such a supply of unemployed labor is always at hand, and it is neither possible [nor] normal that it should be altogether absent. The well-being of workers requires that progress should go on, and it cannot do so without causing temporary displacement of laborers.

The following year, the political scientist William Leiserson took this argument further. He described unemployment as something close to a mirage: "the army of the unemployed is no more unemployed than are firemen who wait in firehouses for the alarm to sound, or the reserve police force ready to meet the next call." The creative forces of capitalism, in short, required a supply of ready labor, which came from people displaced by previous instances of technological progress.

John Maynard Keynes was less confident that things would always work out so well for workers. His 1930 essay "Economic Possibilities for our Grandchildren," while mostly optimistic, nicely articulated the position of the second camp – that automation could, in fact, put people out of work permanently, especially if more and more processes were automated. His essay looked past the immediate hard times of the Great Depression and offered a prediction:

> We are being afflicted with a new disease of which some readers may not yet have heard the name, but of which they will hear a great deal in the years to come – namely, technological unemployment. This means unemployment due to our discovery of means of economizing the use of labor outrunning the pace at which we can find new uses for labor.

The extended joblessness of the Great Depression seemed to confirm Keynes, but it eventually eased. Then came World War II and its insatiable demands for labor, both on the battlefield and the home front, and the threat of technological unemployment receded.

After the war, the debate about technology's impact on the labor force resumed, and took on new life once computers appeared. A commission of scientists and social theorists sent an open letter to President Lyndon Johnson in 1964 arguing that:

> A new era of production has begun. Its principles of organization are as different from those of the industrial era as those of the industrial era were different from the agricultural. The cybernation revolution has been brought about by the combination of the computer and the automated self-regulating machine. This results in a system of almost unlimited productive capacity which requires progressively less human labor.

The Nobel-winning economist Wassily Leontief agreed, writing in 1983 that "the role of humans as the most important factor of production is bound to diminish in the same way that the role of horses in agricultural production was first diminished and then eliminated by the introduction of tractors."

Just four years later, however, a panel of economists assembled by the National Academy of Sciences disagreed with Leontief and made a clear, comprehensive and optimistic statement in their report "Technology and Employment":

> By reducing the costs of production and thereby lowering the price of a particular good in a competitive market, technological change frequently leads to increases in output demand: greater output demand results in increased production, which requires more labor, offsetting the employment effects of reductions in labor requirements per unit of output stemming from technological change.... Historically and, we believe, for the foreseeable future, reductions in labor requirements per unit of output resulting from new process technologies have been and will continue to be outweighed by the beneficial employment effects of the expansion in total output that generally occurs.

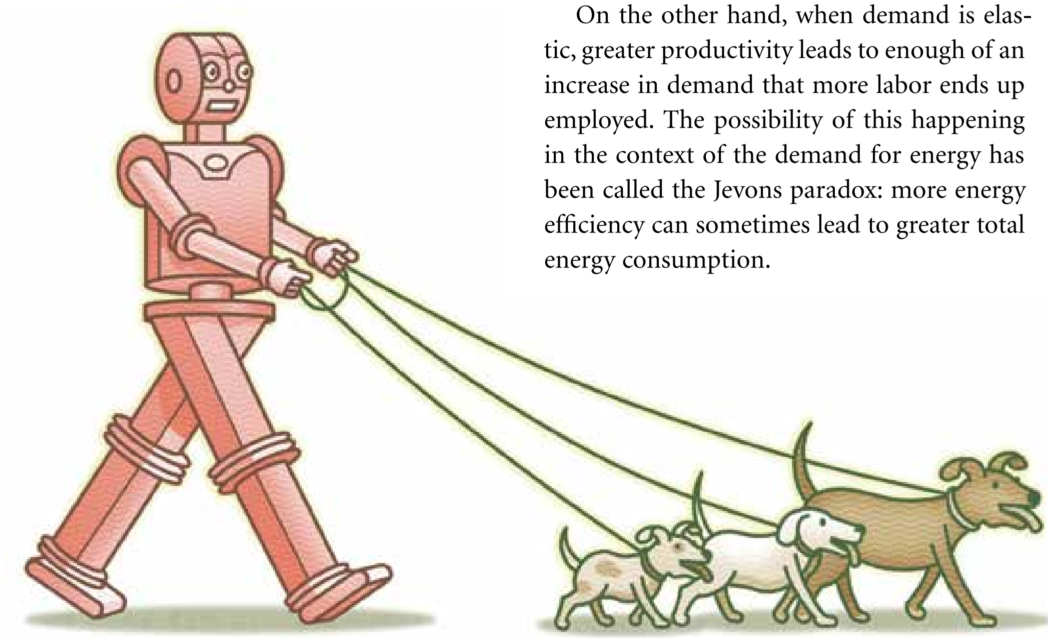
This view – that automation and other forms of technological progress in aggregate create more jobs than they destroy – has come to dominate the discipline of economics. To believe otherwise is to succumb to the "Luddite fallacy." So in recent years, most of the people arguing that technology is a net job destroyer have not been mainstream economists.

The argument that technology cannot create ongoing structural unemployment, rather than just temporary spells of joblessness during recessions, rests on two pillars: theory and 200 years of historical evidence. But both are less solid than they initially appear.

First, the theory. Three economic mechanisms are candidates for explaining technological unemployment: inelastic demand, rapid change and severe inequality.

If technology leads to more efficient use of labor, then as the economists on the National

Academy of Sciences panel pointed out, technological change does not automatically lead to reduced demand for labor. Lower costs may lead to lower prices for goods, and in turn, lower prices lead to greater demand for the goods, which can ultimately lead to an increase in demand for labor as well. Whether or not this will actually happen depends on the "elasticity of demand," defined as the percentage increase in the quantity demanded for each percentage decline in price.



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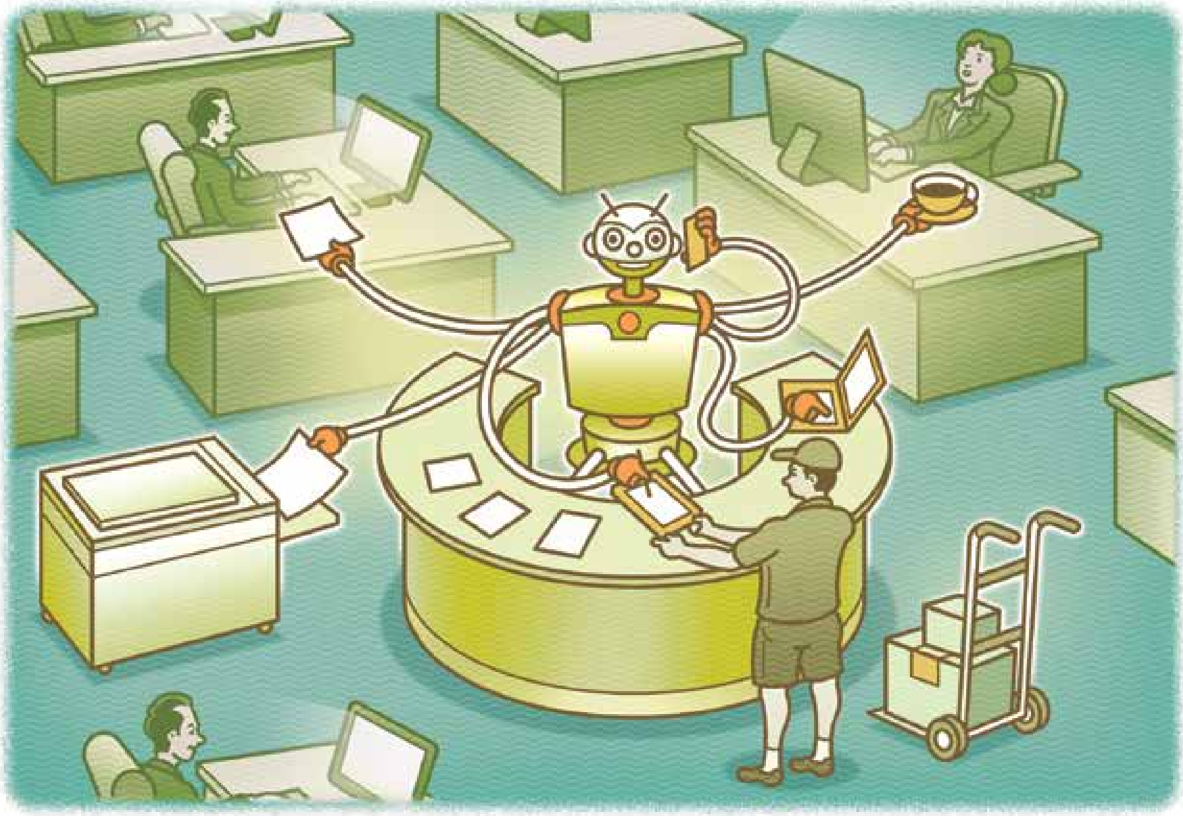
For some goods and services, such as automobile tires and household lighting, demand has been relatively inelastic and thus insensitive to price declines. Cutting the price of artificial light in half did not double the amount of illumination that consumers and businesses demanded, so the total revenues for the lighting industry have fallen as lighting became more efficient. In a great piece of historical sleuthing, economist William Nordhaus documented how technology has reduced the price of lumens by over a thousand-fold since the days of candles and whale oil lamps, allowing us to expend far less on labor while getting all the light we need.

Whole sectors of the economy, not just product categories, can face relatively inelastic demand for labor. Over the years agriculture and manufacturing have each experienced falling employment as they became more efficient. The lower prices and improved quality of their outputs did not lead to enough increased demand to offset improvements in productivity.

On the other hand, when demand is elastic, greater productivity leads to enough of an increase in demand that more labor ends up employed. The possibility of this happening in the context of the demand for energy has been called the Jevons paradox: more energy efficiency can sometimes lead to greater total energy consumption.

But to economists there is no paradox, just an inevitable implication of elastic demand. This is especially common in new industries like information technology. If elasticity is exactly equal to one (i.e., a one percent decline in price leads to a one percent increase in quantity), then total revenues (price times quantity) will be unchanged. In other words, an increase in productivity will be exactly matched by an identical increase in demand to keep everyone just as busy as they were before.

And while an elasticity of exactly one might seem like a very special case, a good



PETER AND MARIA HOEY

(if not airtight) argument can be made that, in the long run, this is what happens in the overall economy. For instance, falling food prices might reduce demand for agricultural labor, but they free up just enough money to be spent elsewhere in the economy so that overall employment is maintained. The money is spent not just buying more of the existing goods, but on newly invented products and services. This is the core of the economic argument that technological unemployment is impossible.

Keynes disagreed. He thought that in the long run, demand would not be elastic. That is, ever-lower (quality-adjusted) prices would not necessarily mean we would consume evermore goods and services. Instead, we would become satiated and choose to consume less. He predicted that this would lead to a dramatic reduction in working hours to as few as 15 per week, as less and less labor was needed to produce all the goods and services that people demanded.

However, it's hard to see this type of technological unemployment as an economic problem. After all, in that scenario people are working less because they are satiated. The "economic problem" of scarcity is replaced by the entirely more appealing problem of what to do with abundant wealth and copious leisure. As the futurist Arthur C. Clarke is purported to have put it, "The goal of the future is full unemployment, so we can play."

Keynes was more concerned with short-term "maladjustments," which brings us to the second, more serious argument for technological unemployment: the inability of our skills, organizations and institutions to keep pace with technical change. When technology eliminates one type of job, or even the need for a whole category of skills, the affected workers will have to develop new skills and find new jobs. Of course, that can take time, and in the interim they may be unemployed. The optimistic argument maintains that this is temporary. Eventually, the economy will find a new equilibrium and full employment will be restored as entrepreneurs invent new businesses and the workforce adapts its human capital.

But what if this process takes a decade? And what if, by then, technology has changed again? This is the possibility that Wassily Leontief had in mind in a 1983 article in which he speculated that many workers could end up permanently unemployed, like horses unable to adjust to the invention of tractors. Once one concedes that it takes time for workers and organizations to adjust to technical change, then it becomes apparent that accelerating change can lead to widening gaps and increasing possibilities for technological unemployment. Faster technological progress may ultimately bring greater wealth and longer life spans, but it also requires faster adjustments by both people and institutions. With apologies to Keynes, in the long run we may not be dead – but we will still need jobs.

The third argument for technological unemployment may be the most troubling of all. It goes beyond "temporary" maladjustments. Recent advances in technology have created both winners and losers via skill-biased technical change, capital-biased technical change and the proliferation of superstars in winner-take-all markets. This has reduced the demand for some types of work and skills. In a free market, prices adjust to restore equilibrium between supply and demand, and indeed, real wages have fallen for millions in the United States.

In principle, the equilibrium wage could be one dollar an hour for some workers, even as other workers command a wage thousands of times higher. Most people in advanced countries would not consider one dollar an hour a living wage, and don't expect society to require people to work at that wage under threat of starvation.

What's more, in extreme winner-take-all markets, the equilibrium wage might be zero: even if we offered to sing "Satisfaction" for free, people would still prefer to pay for the version sung by Mick Jagger. In the market for music, Mick can now, in effect, make digital copies of himself that compete with us.

A near-zero wage is not a living wage. Rational people would rather look for another gig, and look, and look and look, than depend on a near-zero wage for sustenance. Thus, there is a floor on how low wages for human labor can go. In turn, that floor can lead to unemployment: people who want to work, but are unable to find jobs. If neither the worker nor employers can think of a profitable task that requires that worker's skills, that worker will go unemployed indefinitely.

Over history, this has happened to many other inputs to production that were once valuable, from whale oil to horse labor. They are no longer needed in today's economy even at zero price. In other words, just as technology can create inequality, it can also create unemployment. And in theory, this can affect a large number of people, even a majority of the population, and even if the overall economic pie is growing.

So that's the theory; what about the data? For most of the 200 years since the Luddite rebellion, technology has boosted productivity enormously. But the data show that employment grew alongside productivity up until the end of the 20th century. This demonstrates that productivity doesn't always lead to job destruction. It's even tempting to suppose that productivity somehow inevitably leads to job creation, as technology boosters sometimes argue. However, the data also show that, more recently, job growth decoupled from productivity in the late 1990s.

Which history should we take guidance from: the two centuries ending in the late 1990s, or the 15 years since? We can't know for sure, but our reading of technology tells us that the power of exponential, digital and combinatorial forces, as well as the dawning of machine intelligence and networked intelligence, presage even greater disruptions.

THE ANDROID EXPERIMENT

Imagine that tomorrow a company introduced androids [the robot sort, not the Google OS] that could do absolutely everything a human worker could do, including building more androids. There's an endless supply of these robots, and they're extremely cheap to buy and virtually free to run. They work all day, every day, without breaking down.

Clearly, the economic implications of such an advance would be profound. First, productivity and output would skyrocket. The androids would operate the farms and factories. Food and manufactures would become much cheaper to produce. In a competitive market, in fact, their prices would fall close to the cost of the raw materials. Around the world, we'd see an amazing increase in the volume, variety and affordability of offerings. The androids, in short, would bring great bounty.

They'd also bring severe dislocations to the labor force. Every economically rational employer would prefer androids, since compared to the status quo they would provide equal capability at lower cost. So they would very quickly replace most, if not all, human workers. Entrepreneurs would continue to develop novel products, create new markets and found companies, but they'd staff these companies with androids instead of people. The owners of the androids and other capital assets or natural resources would capture all the value in the economy, and do all the consuming. Those with no assets would have only their labor to sell, and their labor would be worthless.

This thought experiment reflects the reality that there is no iron law that technological progress must always be accompanied by broad job creation.

One slight variation on the experiment imagines that the androids can do everything a human worker can do except for one skill – say, cooking. Because there would be so much competition for these jobs, however, companies that employed cooks could offer much lower wages and still fill their open positions. The total number of hours spent cooking in the economy would stay the same (at least as long as people kept eating in restaurants), but the total wages paid to cooks would go down.

The only exception might be superstar chefs with some combination of skill and reputation that could not be duplicated by other people. Superstars would still be able to command high wages; other cooks would not. So in addition to bringing great bounty of output, the androids would also greatly increase the spread in income.

How useful are these thought experiments, which sound more like science fiction than any current reality? Fully functional humanoid robots are not rumbling around at American companies today. And until recently, progress had been slow in making machines that could take the places of human workers in areas like pattern recognition, complex communication, sensing and mobility. But the pace of progress here has greatly accelerated in recent years.

The more readily machines can substitute for human workers, the more likely they'll drive down the wages of humans with similar skills. The lesson from economics and business strategy is that you don't want to compete against close substitutes, especially if they have a cost advantage.

But in principle, machines can have very different strengths and weaknesses than humans. When engineers work to amplify these differences, building on the areas where machines are strong and humans are weak, the machines are more likely to complement humans rather than substitute for them. Effective production is more likely to require both human and machine inputs, and the value of the human inputs will grow, not shrink, as the power of machines increases.

A second lesson of economics and business strategy is that it's great to be a complement to something that's increasingly plentiful. Moreover, this approach is more likely to create opportunities to produce goods and services that could never have been created by unaugmented humans – or by machines that simply mimicked people, for that matter. These new goods and services provide a path for productivity growth based on increased output rather than reduced inputs.

Thus in a very real sense, as long as there are unmet needs and wants in the world, unemployment is a loud warning that we simply aren't thinking hard enough about what needs doing. We aren't being creative enough about solving the problems we have in using the freed-up time and energy of the people whose old jobs were automated away. We can do more to invent technologies and business models that augment the unique capabilities of humans to create new sources of value, instead of automating the ones that already exist. This is the real challenge facing our policymakers, our entrepreneurs and each of us individually.

PETER AND MARIA HOEY

AN ALTERNATIVE EXPLANATION: GLOBALIZATION

Technology isn't the only factor transforming the economy. The other big force of our era is globalization. Could this be the reason that median wages have stagnated in the United States and other advanced economies? A number of thoughtful economists have made exactly that argument. The story is one of *factor price equalization.* This means that in any single market, competition will tend to bid the prices of the factors of production – such as labor or capital – to a single, common price. Over the past few decades, lower transportation and communication costs have helped create one big global market for many products and services.

Businesses can identify and hire workers with skills they need anywhere in the world. If a worker in China can do the same work as an American, then what economists call "the law of one price" demands that they earn essentially the same wages because the market will arbitrage away differences just as it would for other commodities. That's good news for the Chinese worker and for overall economic productivity. But is not good news for the American worker who now faces low-cost competition.

The factor-price equalization story yields a testable prediction: American manufacturers would be expected to shift production overseas, where costs are lower. And indeed, manufacturing employment in the United States has fallen over the past 20 years. Economists David Autor, David Dorn and Gordon Hanson estimate that competition from China can explain about a quarter of the decline in U.S. manufacturing employment.

However, when one looks more closely at the data, the globalization explanation becomes less compelling. Since 1996, manufacturing employment in China has actually fallen as well, coincidentally by an estimated 25 percent. That means 30 million fewer Chinese were employed in the sector, even as output soared by 70 percent. It's not that American workers are being replaced by Chinese workers. It's that both American and Chinese workers are being made more efficient by automation. As a result, both countries are producing more output with fewer workers.

In the long run, the biggest effect of automation likely won't be on workers in America and other developed nations, but on workers in developing nations that currently rely on low-cost labor for their competitive advantage. If you take most of the costs of labor out of the equation by installing robots and other types of automation, the competitive advantage of low wages largely disappears.

This is already beginning to happen. Terry Guo, the founder of Foxconn, the giant China-based manufacturer, has been aggressively installing hundreds of thousands of robots to replace human workers. He says he plans to buy millions more in the coming years. The first wave is going into factories in China and Taiwan, but once an industry becomes largely automated, the case for locating a factory in a low-wage country becomes less compelling.

There may still be logistical advantages if the local business ecosystem is strong, making it easier to get spare parts, supplies and custom components. But inertia may be overcome by the advantages of reducing transit times for finished products and being closer to customers, engineers and designers, educated workers or even regions where the rule of law is strong. This could bring manufacturing back to America.

A similar argument applies outside of manufacturing.

For instance, interactive voice-response systems are automating jobs in call centers. United Airlines, for example, has been successful in making the transition. This can disproportionately affect low-cost workers in places like India and the Philippines. Similarly, many medical doctors have had their dictation sent overseas to be transcribed. But an increasing number are now happy with computer transcription. In more and more domains, intelligent and flexible machines, not humans in other countries, are the most cost-effective source for "labor."

If you look at the types of tasks that have been offshored in the past 20 years, you see that they tend to be relatively routine, well-structured tasks. Interestingly, these are precisely the tasks that are easiest to automate. If you can give precise instructions to someone else on exactly what needs to be done, you can often write a precise computer program to do the same task. In other words, offshoring is often only a way station on the road to automation.

In the long run, low wages will be no match for Moore's Law. Trying to fend off advances in technology by cutting wages is only a temporary protection. It is no more sustainable than asking folk legend John Henry to lift weights to better compete with a steam-powered hammer.

BY ROSS DEVOL

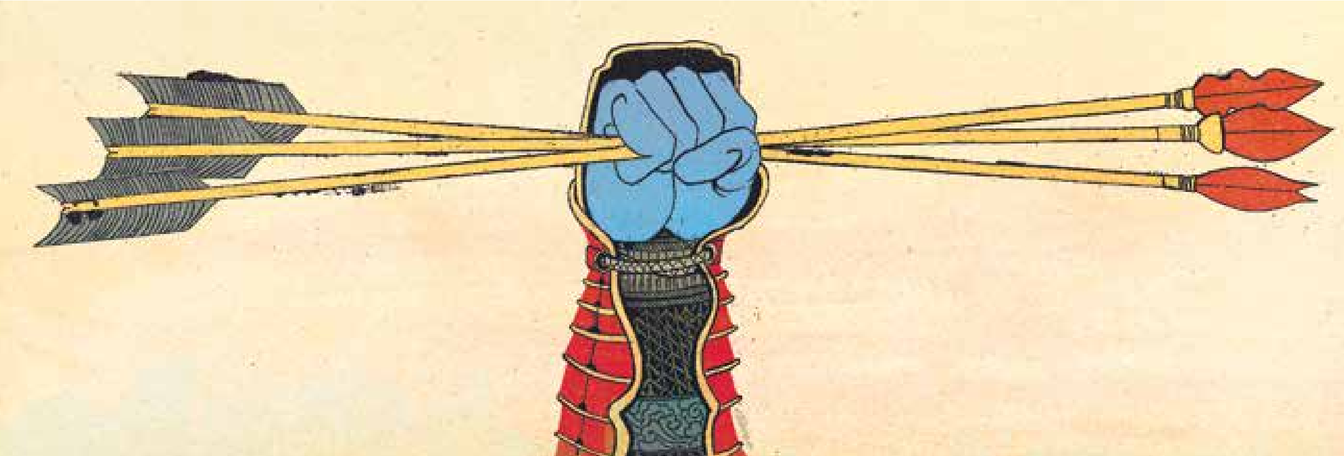
Anyone who came of age in the 1970s and early 1980s was taught that Japan was an unstoppable economic growth machine, a model for other countries to emulate. With the benefit of hindsight, of course, that conventional wisdom seems ironic. For Japan was about to be undone by asset bubbles and two "lost decades" of stagnation – a reversal that left Japan the model for what not to do in order to grow.

With the fall came the revisionist history. Previously dazzled analysts remembered that postwar Japan's stellar economic performance was largely attributable to high savings rates and catch-up from the destruction of war, both of which were self-limiting. Another underappreciated factor was Japan's untenable demographic path. Thanks to a fertility rate below replacement value and an unwillingness to allow immigration, the population quickly aged and eventually the labor force began to decline. Aging, in turn, accelerated the inevitable trend toward the demand for services, where productivity is almost always lower than in manufacturing and the economic culture is more resistant to competitively driven change.

"Japan Inc.," a term coined to celebrate the strength of Japan's top-down corporate culture and its cozy relationship with government, became a symbol of Japan's immense inertia. The government was slow to force insolvent businesses into liquidation. Regulation designed to protect all manner of insiders from competitive challenges seemed impervious to critics. Ineffective macroeconomic stimulus policies built around wasteful "bridge to nowhere" infrastructure spending remained in place because it kept the pork barrel full.

But 2012 marked a sea change of sorts, a moment in which popular frustration with stagnation, and perhaps fear of being made economically and politically irrelevant in Asia by China, trumped inertia. Enter Shinzo Abe, a politician with a checkered career, who was elected prime minister on a platform of in-your-face nationalism and (more relevant

JACOB THOMAS



here) an aggressive set of policies designed to restore economic growth and break the grip of deflation – policies soon to be termed "Abenomics."

Abenomics is often described as the "three-arrow policy." The three-arrow reference comes from an old legend from the prefecture of Yamaguchi, from whence Abe hails. The story is about a lord who asked each of his three sons to break an arrow, a task easily performed. Next, he produced three more arrows and told each son to snap all three together. They couldn't. The moral of the tale: Work alone and the group is weak, but work together and the clan is strong. (It must sound better in Japanese.)

ARROW NO. 1: AGGRESSIVE MONETARY POLICY

Abe appointed Haruhiko Kuroda, head of the Asian Development Bank, to run the Bank of Japan with the goal of implementing aggressive monetary expansion. Kuroda had long been a critic of the Bank of Japan's half-hearted attempts to stimulate the economy.

The BOJ's new Abe-friendly policy board adopted an inflation target (2 percent), a first for Japan. It also committed to doubling the monetary base over two years. This is an ambitious step – though the change is notably less than the Federal Reserve and the Bank of England implemented during the global financial crisis. Most important, the BOJ widened the range of government bonds that it is purchasing to include all maturities, with the goal of lengthening the average duration of its assets from three years to seven. Further, it is purchasing private assets, mainly real estate investment trust securities and exchange-traded funds, in an effort to stimulate economic activity more directly.

The monetary bazooka has already had an impact. Consumer prices have stopped falling. And the exchange value of the yen against the dollar has declined by one-fourth, making Japan's exports (and domestic goods that compete with imports) more attractive.

Some international finance officials – among others, Brazil's finance minister, Guido Mantaga – believe that Japan is engaging in a "currency war," an attempt to "beggar its neighbors" by making its exports more competitive in global markets at the expense of other countries' products.

Japan's policy, however, doesn't fit neatly into the conventional currency-war mold because officials aren't directly intervening in foreign exchange markets to depreciate the yen. Japanese officials argue that they are pursuing an expansionary domestic monetary policy in order to end deflation and push down real interest rates. So far, most advanced economies are willing to give Abe's policymakers a pass on the issue, though that may change if Japan's export growth plainly hurts competitors.

Yen depreciation could increase Japan's growth rate through the relative price impact on foreign trade or by giving Japanese consumers incentives to buy domestic goods. But calculating the timing or overall impact of these two channels is not straightforward.

Japanese firms selling into foreign markets may decide not to pass through the full amount of their added cost advantage. By the same token, foreign firms may choose to hang on to market share by cutting prices and accepting narrower profit margins at least temporarily.

Note, too, that the timing of changes in trade flows in response to fluctuations in ex-

ROSS DEVOL is the chief research officer of the Milken Institute. This piece is based on a more technical analysis of Japan's economic prospects available at www.milkeninstitute.org.

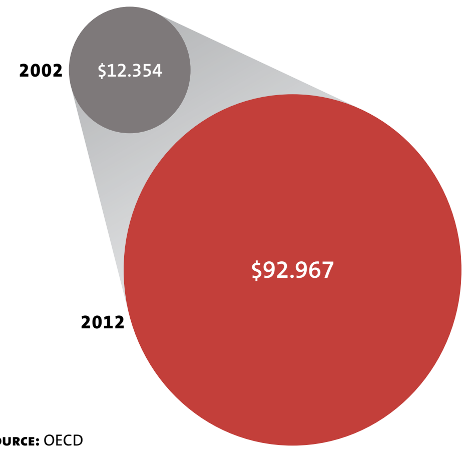
change rates depends on past investment in domestic and foreign capacity. For example, Japanese firms responded to the past *appreciation* of the yen by building factories in China to serve third markets. Indeed, Japan's foreign direct investment in China rose from $12.4 billion in 2002 to $93 billion in 2012. Japan's exports thus may not respond with alacrity when the yen depreciates because the economy may now lack the domestic capacity to capitalize on a currency advantage.

It has been 18 months since the yen began to depreciate. And, on the surface anyway, Japanese trade data don't support the view that it is stimulating the economy. Indeed, export growth has been anemic (1.6 percent in 2013 and 3.4 percent in the first quarter of 2014) while import growth has been strong.

But caution in drawing conclusions is warranted because many factors other than yen depreciation have affected Japan's trade flows in those 18 months. For example, Japan's energy imports have surged in the wake of the shutdown of the country's nuclear power plants. Moreover, the rise in other imports may have been related to anticipation of a sales tax increase in April.

JAPANESE FDI IN CHINA

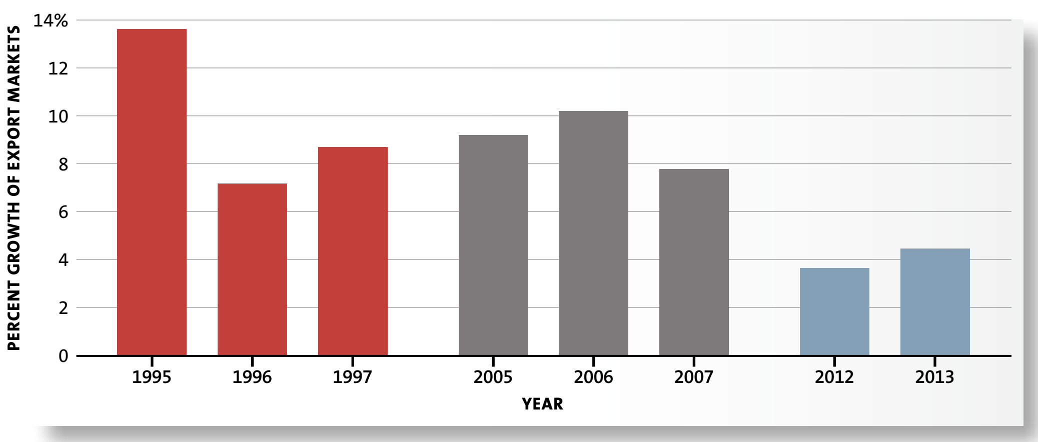
US $BILLIONS



SOURCE: OECD

One often overlooked explanation for the weakness in Japan's exports of manufactured products has been higher prices and curtailed supplies of electricity attributable to the Fukushima disaster. Rolling blackouts were initiated, and, effectively, a rationing system was implemented. In this environment, Japanese firms were reluctant to bring production back home and foreign multinationals didn't invest in productive capacity in Japan.

PAST ITS PEAK IN EXPORTS



SOURCE: Oxford Economics

Other factors can be added to the mix. It's hard to increase exports very much in a period in which total world trade growth has been slow. Another confounding factor: the protracted effect of a Chinese boycott of Japanese goods in the wake of Abe's provocative visit to the Yasukuni shrine to pay respect to Japan's war dead. The share of Japanese vehicles sold in the Chinese market fell from 20 percent in October 2012 to just 8 percent a year later.

But as our own research (available on the Milken Institute website), corroborates, there is a long lag between changes in the value of the yen and its ultimate impact on trade flows, investment and economic performance. In other words, we shouldn't have expected a rapid response to yen depreciation. And the most recent data suggest that Japan's exports are, in fact, beginning to rise.

ARROW NO. 2: FISCAL STIMULUS

The Abe administration's first budget included an infrastructure package equal to about two percent of GDP, with construction of earthquake-resistant bridges, roads and tunnels to repair the damage wrought by the 2011 catastrophe on the top of the list. That's real money, but little more than would probably have been spent if Abe had lost.

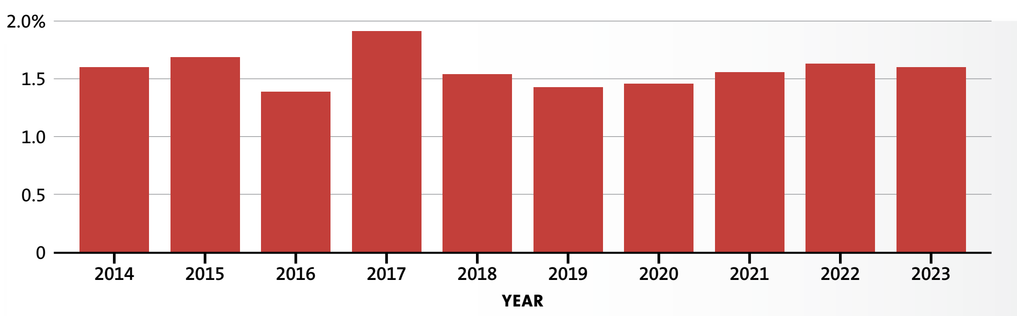
The second tranche of the fiscal package actually amounts to a net negative, since spending will be more than offset by an increase in consumption taxes over a two-year period. This is a reflection of the pressure to reduce the budget deficit and to slow the growth of the government debt, now the largest among advanced industrial countries. And, of course, it reduces the prospects that Abenomics will break Japan free from stagnation. But analysts note that the back-loaded nature of the tax increase will give the government an opportunity to back out if the economy goes south.

ARROW NO. 3: STRUCTURAL REFORM

Monetary and fiscal policy can go only so far. To fundamentally alter the long-term trajectory of the Japanese economy, bold structural reforms will be necessary to increase potential GDP. And these "third arrow" reforms have been lacking. This is all the more disappointing, as Abe's Liberal Democratic Party controls both chambers of the Diet. If he can't beat back interest-group opposition in his own party between elections, the prospects for success in an election year seem modest at best.

With the working-age population set to decline, ways must be found to push the labor force participation rate higher. That shouldn't

REAL GDP GROWTH YEAR-OVER-YEAR



SOURCE: Author's projection

be so difficult: the female participation rate is substantially below that of other wealthy OECD member nations. But disappointingly few Japanese women seem inclined to work after childbirth.

The LDP has come around to adopting a more liberal view on female involvement in the labor force since Abe was first elected prime minister in 2005. Opposition at that time was based on the idea that it would lead to the disintegration of the traditional family and push the fertility rate – already well below the rate needed to maintain a stable population – even lower. But reforms weren't enacted, and the fertility rate fell further anyway.

Among measures that could make a difference: increasing the hours that women can work before being subjected to a higher marginal income tax rate, providing more state-supported day care, making it more acceptable to breast-feed babies in the office, and pressuring companies to promote women to positions of greater responsibility.

Another area ripe for reform is government-induced labor market rigidity. Many large firms are reluctant to hire more workers because it is so costly to lay them off. Meanwhile, government barriers to starting new businesses can be stifling. Reforms here could help to solve Japan's chronic problem in stimulating technological change through the medium of start-ups.

Abe has entered the Trans-Pacific Partnership negotiations with other Pacific Rim counties and seems committed to removing trade barriers. But to succeed he will have to break the hold of notoriously inefficient rice farmers, who till tiny plots of land at very high cost.

Another initiative that could yield substantial benefits is lowering the corporate tax rate. Japan still has the second-highest corporate tax rate in the world (after the United States).

In a best-of-plausible-worlds scenario, we estimate that the overall labor force participation rate would rise by six percentage points. Nevertheless, even with this addition to the labor force, total employment would decline from 63.4 million in 2014 to 61 million in 2023 because of population aging. But that net loss could be more than offset by a business-friendlier environment that increased investment.

In that relatively rosy scenario, Japan's GDP would grow at an average rate of 1.6 percent annually over the next decade – 0.6 percentage points higher than in the baseline projection. Not much you say? I disagree: for a mature industrialized economy in which both the labor force and the total population are declining, it would be an impressive performance.

A LAST THOUGHT OR TWO

Japan has a historical knack for making comebacks when the odds seem longest. And it just might be about to happen again: after two decades of lost growth, the stars may be lining up for a surge.

The first two arrows of Abenomics have been launched, arguably providing the macroeconomic prerequisites for growth. Much, however, depends on the third arrow, structural reforms, where a depressing number of Abe's predecessors have been unable to summon the political will to make change happen.

A revitalized Japanese economy is, of course, critical to the well-being of a nation that must support an aging population. But Japan's success would also have positive ramifications for Southeast Asia, which is becoming highly dependent on the Chinese colossus. And in the process, the burden on the United States to serve as a geopolitical counterweight to China would diminish.

Wish Abe well. Japan's future and our own are inextricably tied.

BY CLIFFORD G. GADDY AND BARRY W. ICKES

In the final months of 2013, before the confrontation created by the annexation of Crimea, Russia's leaders were focused on a different crisis: the surprising and disturbing fact that an economy they thought was going to grow at 4 percent might not even expand by 1 percent. This "growth crisis" sparked heated exchanges – but no consensus – about how to restore momentum to the economy.

Since March, the debate about reform and growth has, of course, been overshadowed by the threat posed by Western sanctions. But the fact remains that even if the economy escapes unscathed from U.S. and European censure, Russia will still face a growth crisis, which is still poorly understood. And without getting to the bottom of what happened in 2013, it won't be possible to sort out either the short- or long-term prospects for Russia's economy.

The problem with much of the discussion of what's needed to sustain growth is that it is missing an explicit model of what drives growth. Here, we go back to basics, identifying the factors responsible for the slowdown using a simple model familiar to every undergraduate who has sat through a course in economic theory. Our conclusions may come as a surprise to those inclined to prescribe conventional remedies for what ails the Russian economy.

CLIFFORD GADDY is senior fellow at the Brookings Institution. **BARRY ICKES** is professor of economics at Penn State University and director of its Center for Research on International Financial and Energy Security.

MARCHING TO A DIFFERENT DRUMMER

Russia's economic performance in 2013 was quite different from anything experienced since the collapse of Communism and the Soviet system. It's true that from 1992 through 1998 the Russian economy imploded, suffering negative growth averaging 7 percent a year. But that came as the Soviet system collapsed and economic ties within the highly integrated Soviet bloc dissolved. Most important, the transition to markets wiped away much of the fictitious value that had been ascribed to the Soviets' massive investment in manufacturing capacity and infrastructure.

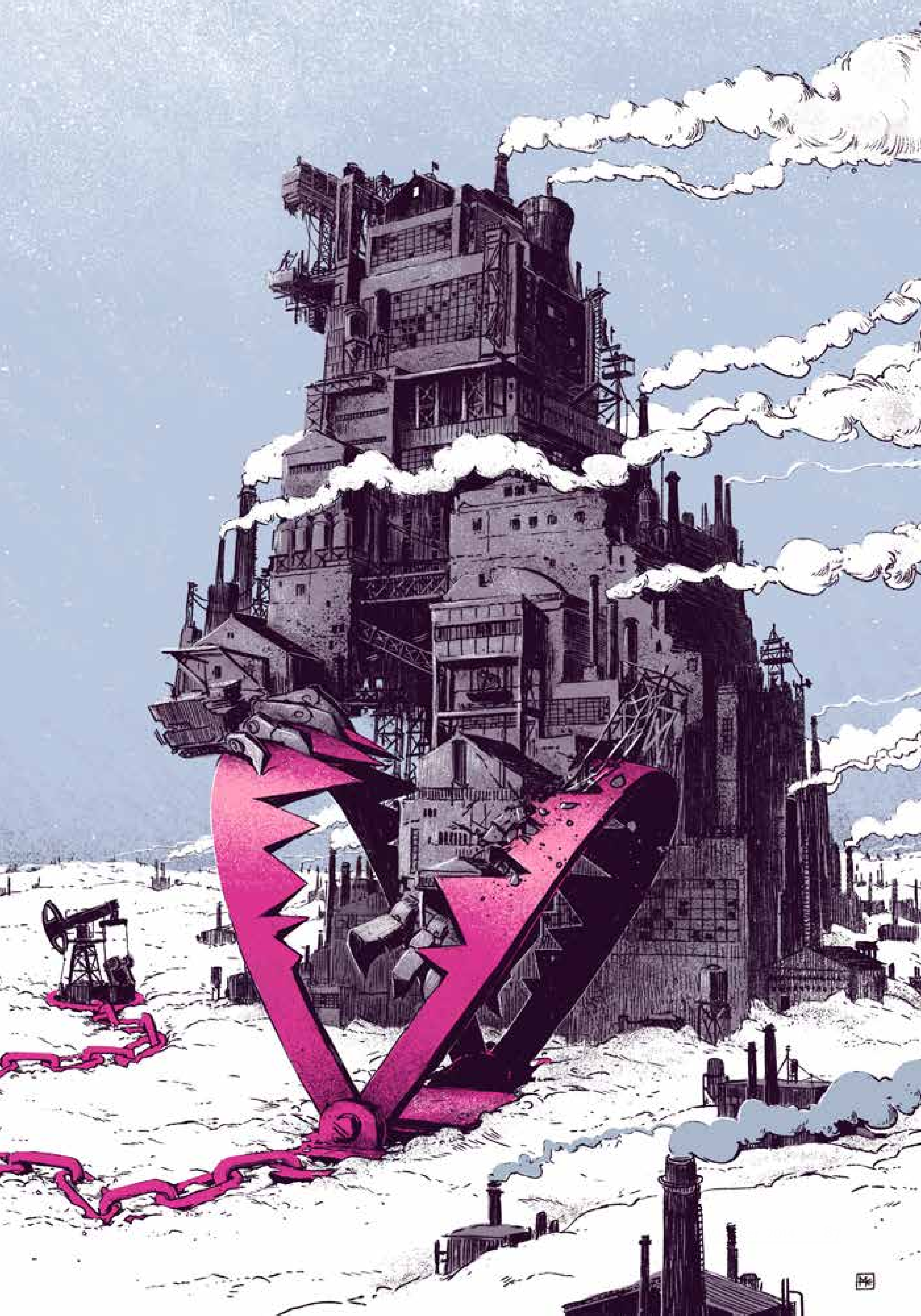
The Russian economy also suffered a deep, but brief, recession in 2008-9, with GDP falling by 8 percent. But that was explained easily enough by plummeting prices for Russia's dominant export, oil.

GROWTH RESUMES

Growth resumed in 2010. At just a bit more than 4 percent a year, though, the rate was well below the boom years of the previous decade.

The regime was nonetheless optimistic that the economy would expand at a rate of 5 to 6 percent once the European recession was

MICHAL DZIEKAN



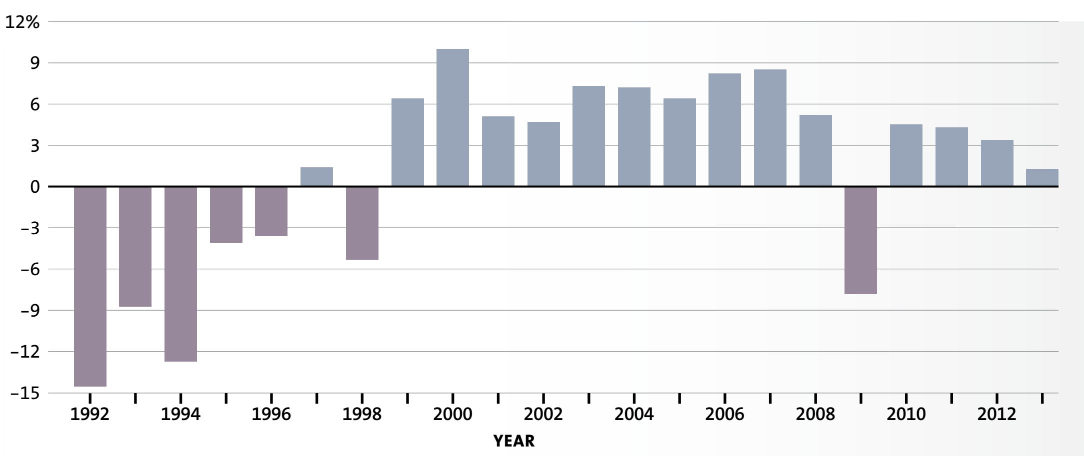
over. This was why 2013 came as such a shock – and not only to Russian policymakers. The evolution of the forecasts by the International Monetary Fund in its biannual World Economic Outlook is typical. As late as the spring of 2013, the IMF was predicting growth of 3.4 percent for 2013. By October, the figure had been revised down to a sobering 1.5 percent – which was still slightly higher than the actual 1.3 percent.

The Russian government blamed this slowdown on the external environment, notably the European Union's weak recovery from the financial meltdown. Some, including Prime Minister Dmitry Medvedev, embraced another argument. Russia, they suggested, was the latest victim of the "middle income trap" – the idea that once a country reaches a per capita income of about $15,000, its growth declines sharply. This notion suited the regime well, absolving it of blame: the disappointing performance wasn't caused by policy failure, but by ill-understood forces that affected many countries in the same stage of development. In fact, in one speech, Medvedev spun the bad news into ersatz gold. The slowdown, he argued, was a sign of success. After all, not every country makes it to middle-income status, where it is vulnerable to the middle-income trap.

Economists inside and outside Russia (including those at the IMF) began to talk of the need for a "new model of growth" for Russia. The old model, in which growth was driven by a combination of the use of previously underutilized productive capacity and the windfall from high oil prices of the last decade, was exhausted. There was a flood of proposals for how to restore growth, ranging from the obvious to the utopian. They include structural reforms, stronger institutions, privatization, deregulation, innovation, modernization, diversification, more secure property rights and investment in human capital – the list goes on and on.

One can't help but be reminded of the old Soviet joke about the collective farm director and his chickens. The chickens are dying at an alarming rate, so much so that Moscow sends in its top expert. "I have an idea," the expert says. "Switch out the rectangular troughs for

ANNUAL GDP GROWTH, 1992–2013



SOURCE: IMF, World Economic Outlook Database; Russian Federal State Statistics Service triangular ones." He promises to come back in two weeks to monitor the progress.

"So?" he asks on his return.

"It didn't work," the director replies. "The chickens kept dying."

"I have a better idea," the expert says. "Paint the coops green."

Two weeks pass, and he's back. "The chickens kept dying," the director says. Again, a new idea.

Again he returns to hear that the chickens keep dying.

One day, the expert comes back, and the director announces, "All the chickens are dead."

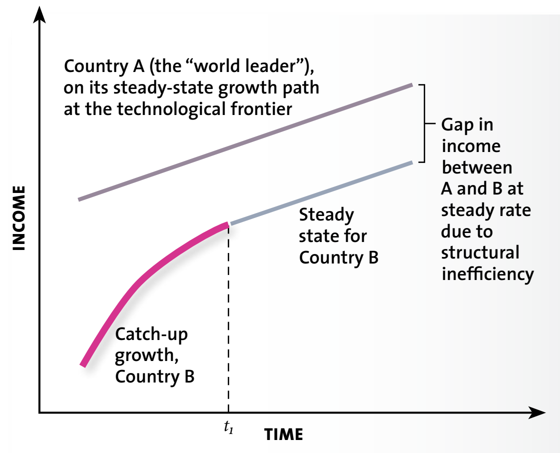
"What a shame," the expert says. "I had so many more great ideas. …"

Today's experts pose no similar threat, since their "great ideas" will never be put into practice. Vladimir Putin won't implement them – though not because he thinks they threaten the health of the economy so much as they threaten political and social stability. The bad news is that Putin, too, lacks a plan to cure the ills of the economy. He apparently will maintain business as usual, based on mega-projects and tens of trillions of rubles for defense industry modernization and industrialization of Russia's coldest and most remote regions in the East. Meanwhile, there is still no clear recognition of what has happened to the economy or what could be done to fix it.

STEADY STATE AND CATCH-UP

Some basics. It is crucial to distinguish factors that affect the level of the country's GDP from those that affect the rate at which GDP changes. This distinction is needed because the upper bound on how fast an economy can grow depends on how far it is from its "steady state" level of income – the level at which it can no longer grow by increasing the amount of capital per worker and borrowing technology. In the steady state, growth will largely be constrained by the rate of technological progress at the world frontier.

GROWTH AND CONVERGENCE



EDITOR'S NOTE: The y axis is really (log y), but we hope you get the idea

This implies that the differences we see in countries' growth rates stem not only from government policies and the quality of economic institutions, but from the size of the gap between current output and the steady-state level of output. The further from the steady state, the greater the potential for faster growth via catch-up.

To be sure, economies also differ in their steady-state levels. That is, there may be a gap between the income level of a particular country and the income of a country at the technology frontier. Japan, say, can catch up completely and then grow at the same rate as the frontier economy but still have a lower level of income than, say, Germany, because it has an economic culture that undermines efficiency.

What is the role for public policy in this setting? Good policies can both raise the steady-state level of income and increase the pace of catch-up growth. Thus, better or worse policies help determine how high GDP

will be in the steady state and how long it will take to reach the relatively slow pace of steady-state growth.

A country's steady-state income is determined by how close it approaches the technology frontier. If its economy has the same level of efficiency as that of the country at the technology frontier, the country's steady-state level of income could coincide with technology leaders. Otherwise, there will be a gap. The relationship between convergence to steady state and the gap with the technology frontier is crucial to what follows, and we illustrate the relationship in the figure on page 89. Country A (which we can think of as the United States) is on a steady-state growth path at the technology frontier. Because it has reached its steady state, it grows at the rate of technological change.

Initially, Country B (say, Japan after World War II) has a per capita income far below Country A. But in the catch-up phase, its growth rate is higher. At time t_1 Country B has converged to its new steady state, but its income level remains below that of Country A because of structural inefficiencies. If these are not eliminated, both countries will grow at the same rate, but Country A will always have a higher income than Country B.

CHINA VERSUS RUSSIA

This framework, incidentally, applies to China

MICHAL DZIEKAN

(and other Asian tigers) as well as to Russia. As recently as 1978, China's per capita income, measured in terms of purchasing power, was a wretched 4 percent (no misprint) that of the United States. This gave China an opportunity for a rapid rise in growth relative to the United States. Until 1978, however, China pursued policies that slowed the catch-up process. Hence, when China's reforms began under Deng Xiaoping, the gap was still huge. When reforms were finally implemented, growth could proceed at a double-digit pace for decades without converging to its steady state.

traps came about. Stalin and his successors did not want the Soviet Union to become a "raw materials appendage" of the capitalist West; the goal was to industrialize to reduce its dependence on a hostile world. But because planning was opaque and prices were set by bureaucrats rather than markets, the true cost of investments made to realize the goals of the Communist leadership was not generally recognized. The result was a vast network of interdependent enterprises that were very inefficient compared with their counterparts in market-based economies.

Factories – and the cities and infrastructure to support them – were often built in cold, remote locations. And the resulting waste was disguised by underpricing inputs in this far-flung industrial empire.

The Soviet experience differed from China's in two key respects that have mattered a great deal in more recent decades, when both countries began the transition to market economies. First, the USSR was surely closer to its steady-state level of income than China on the eve of the collapse of the Soviet state, implying that the gap to be closed was smaller. Second – and this is related to the first point, as we explain below – the USSR was resource-abundant.

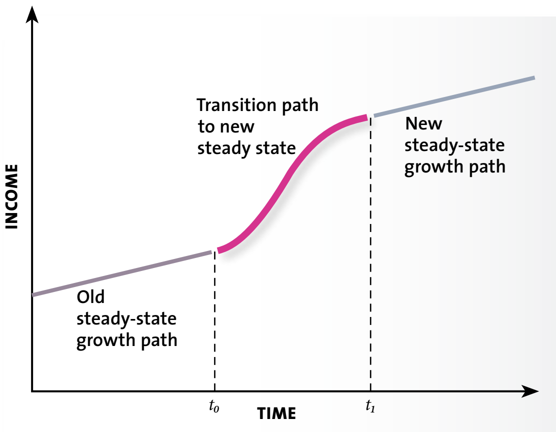
As oil and gas rose in value, Soviet income levels were pushed higher than they otherwise would have been. But the resource wealth also gave the Soviet Union the leeway to pursue policies for ideological and geopolitical reasons that would burden the economy down the road. We refer to these handicaps that lowered the productivity of both human and physical capital as Russia's "bear traps."

It's important to understand how the bear

One big reason for the inefficiency of Soviet industry was its location. Factories – and the cities and infrastructure to support them – were often built in cold, remote places. And the resulting waste was disguised by underpricing inputs to this far-flung industrial empire.

Planning performed poorly in China, too. But China did not pursue the Soviet path as long or as doggedly as the Soviet Union. China did create some "panda traps" – for example, farms that grew the wrong crops in the wrong places and state-owned factories that couldn't survive without subsidized capital from government banks. But the problem was less severe. Much less of the economy was mal-industrialized, and location policy was not as defective. Therefore, the political and social costs of reform were lower in China than in Russia. China's reforms thus led to rapid growth through catch-up, as theory

CHANGING GROWTH PATHS



would predict. In the case of Russia, on the other hand, the failure of the economic system was veiled by growing resource wealth.

THE IMPACT OF OIL

The figure above illustrates the impact of a one-time increase in the price of oil on the steady-state level of income for an oil exporter. It is important to understand this connection because many observers conclude (incorrectly) that real income can only grow if the quantity of oil produced increases. We consider an oil price increase at time t_0 and analyze the adjustment to a new steady state. The oil price increase raised national wealth. But since income cannot rise instantaneously, the convergence to the new steady-state growth path is not completed until time t_1. During the transition, the actual growth rate of the economy is greater than the steady-state level determined by the fundamentals of this economy. Thus, even a one-time rise in oil prices can lead to a rise in the growth rate of income for several periods, perhaps a decade.

Now suppose that oil prices continue to rise for several years. The situation will be similar except that the steady-state level of income shifts up more than once and produces a longer period of income growth. This is what happened in Russia. As long as oil prices continued to rise, growth rates remained high, and the failure of the old playbook was not readily apparent. Moreover, the oil wealth allowed a structure to develop that produced vested interests in preserving the old system, and it provided sufficient resources to maintain the structure.

Consequently, when Russia finally did discard the Soviet approach, it did so only in a formal way. In practice, the players kept following it even after the collapse of the Soviet Union. Oil and gas wealth continued to be distributed predominantly to the same claimants – the large defense-industry and other machine-building enterprises – as during the Soviet period.

Putin managed this by demanding and getting substantial tax revenue from the energy sector and by creating an informal, but tightly controlled, system for allocating resources in which the owners of large enterprises – the so-called oligarchs – play a key role. Most of the companies in Russia's raw materials sector were privatized in the 1990s. But with few exceptions, Putin has allowed the owners of those companies to keep their property only as long as they supported the production and supply chains linking the enterprises inherited from the Soviet system.

Energy producers transfer wealth directly – either in physical form (as below-market-price fuel) or in money (as excessive payment for orders from equipment manufacturers) – and indirectly, via intermediate production sectors that serve the oil and gas industry, such as transport infrastructure construction, the electric power sector and refining industries. The system shores up the political status quo and avoids the sorts of social dislocation that plagued the country in the 1990s. But they do so by preserving the bear traps and, more broadly, the economy's dependence on oil as the sole source of growth. It is only now, in an environment of stable oil prices, that we can see how anomalous the high growth rates of the last decade were.

CAN RUSSIA GROW NOW?

Thanks to oil exports, Russia enjoys a level of income that is higher than what we would expect in light of the economy's non-oil fundamentals. But the bear traps present daunting obstacles for future growth.

To analyze Russia's growth prospects, it's important to distinguish between government policies that could increase the nation's rate of convergence to the steady state and policies that determine its GDP in the steady state. Two sorts of factors influence the catch-up rate. The first are factors that relate to raising the technological potential of the economy. And here, the key is the investment rate. Since catch-up is defined in relation to the world technology leaders, acquisition of foreign technology (most effectively in the form of foreign investment) is particularly important.

GDP GROWTH RATES IN COUNTRIES WITH A PER CAPITA INCOME OF $5,000+, 1950–2010

PER CAPITA INCOME	AVERAGE OVERALL GROWTH RATE
$5–10K	2.72%
10–15K	2.93
15–20K	1.85
20–30K	2.10
>30K	1.52
Average	**2.16**

SOURCE: Penn World Table

The other set of factors influencing the convergence rate involves improving the institutional environment – everything from the impartiality of the legal system to the efficiency of regulation. A superior institutional environment makes it possible to raise the level of investment, including investment embodying new technology. In addition, the institutional environment largely determines the extent to which the technology potential is realized. The availability of state-of-the-art technology will not guarantee catch-up if the institutions of the economy prevent it from being used effectively.

What about the factors determining the income level at which convergence to the steady state occurs? One is the extent to which Russia focuses on its advantages in natural resources. If the nation concentrates on oil and gas development, the steady-state GDP will be larger and catch-up growth will be brisker.

The bear traps will play a big role here, too. As long as the structural legacies of the Soviet era are preserved, Russia will never be as rich as it otherwise could be. It will have to keep spending to compensate for the geographical handicaps that undermine the productivity of capital.

There is an additional link to consider between investment and the bear traps. As long as the structural handicaps remain, the *return* to investment will be lower than it ought to be. Thus, even if the Kremlin manages to implement policies that speed the adoption of modern technology and make the institutional environment more market-friendly, the bear traps will serve as a drag on growth.

RUSSIA'S NEW NORMAL

What does the historical record of growth elsewhere tell us about Russia's prospects? The Penn World Table, a compilation of data now maintained by the University of Groningen, offers insights. PWT includes data for 167 economies from 1950 to 2010, including the growth records of dozens of countries with per capita incomes over $5,000. We can use the data to determine the average growth rate for a country at Russia's current income level.

Russia's per capita income today is close to

$15,000. That suggests it is not likely to sustain growth faster than 2 percent annually. But Russia's income is this high only thanks to oil. Its institutional structure more closely resembles a country with a per capita income in the $10,000 range. In part, this is good news for Russia – other things equal, the richer a country is, the slower it can be expected to grow. Hence, Russia actually has more room for catch-up than it might appear from its income level alone. By this logic, instead of having an expected growth rate under 2 percent, Russia's potential is closer to 3 percent.

On the other hand, these average growth rates are for countries that aren't locked into bear traps, which amount to a tax on growth. They also impede institutional reforms, and hence they prevent Russia from taking advantage of the extra catch-up growth it could otherwise expect.

REALITY BITES

When we speak of expected growth for countries at various income levels, we are implicitly assuming that the countries adopt "normal" policies. If Russia is to achieve the growth typical for its income level, it needs higher investment rates. But how can this be managed?

To many Russia observers, the answer seems straightforward: improve the business climate. This is a bit misleading, however. First, the investment rate depends heavily on the expected return. And if investment did not boom when oil prices were rising and the return to domestic investment was high, it is hard to see why it would boom now, when oil prices are stagnant.

Second, one has to ask where the increased investment will come from. The end of the oil price boom implies that more investment must come at the expense of private consumption, government spending or net exports. But no policy agenda exists to induce more private or public saving or, for that matter, to attract foreign capital.

Foreign capital is, of course, the most tantalizing sort since it brings foreign technology with it and demands no immediate sacrifice from Russian stakeholders. But that brings us full circle: with the economy struggling and retail sales slowing, why would foreign investment accelerate? Put another way, how much can the business climate improve to offset the impact of a slowing economy? The evidence suggests that there is just not much leverage.

Indeed, there is probably only one way to attract the needed foreign capital: open the energy sector. Barring the imposition of sanctions, foreign investment in oil and gas would respond briskly to the removal of restrictions. After all, if multinational oil companies are willing to take their chances in environments as hostile as Sudan, Burma and Ecuador, they would no doubt make a bigger commitment in Russia (provided, of course that Western sanctions didn't get in the way). We know from the experience of BP that even companies that have experienced ill treatment want to be in the Russian oil sector. Potential profits are just too high to ignore.

Russia does face a growth crisis. This is just dawning on people. It should have been recognized earlier. It wasn't, because several years of growth produced by the oil-price-induced transfer of wealth to Russia from the outside were mistaken for "normal" growth. Very few people recognize the true explanation of Russia's past boom and current slowdown. Today, many compete in proposing magic solutions to return to growth, proposals that are not feasible economically or politically. Meanwhile, there is one path that is both: the resource track.

BANK ON IT

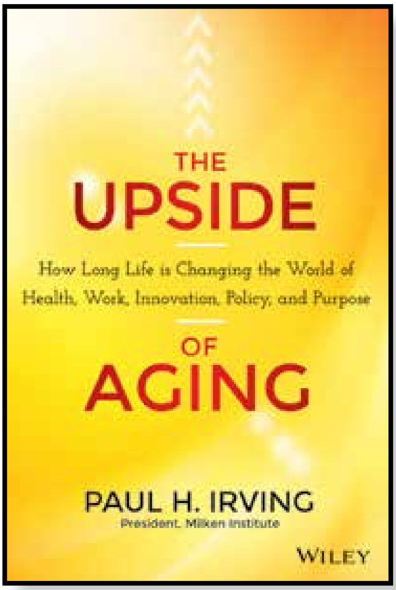
The Institute launched Globalbanking.org in May, a one-of-a-kind web platform for accessing information on banking systems and their regulation in scores of countries. The website is designed to serve as both a portal for financial policymakers and a one-stop search site for academics, journalists and the general public who want to deepen their understanding of current issues in banking. "We're confident that it will be a tremendous resource for anyone working in this area," says Staci Warden, executive director of the Institute's Center for Financial Markets. Others agree: after its debut, Forbes.com called globalbanking.org a "powerful resource" for those tracking the issues.

BEST PRACTICES

In June, our FasterCures center released its "Consortia-pedia Framework Report." The last decade has seen a proliferation of medical research consortia – unique collaborations among non-traditional partners with shared research and development goals. Nearly 400 such groups have been launched in the past 30 years, yet the landscape has gone largely unmapped. That is, until now: the Framework Report analyzes 21 diverse consortia to better understand the tools and metrics used to start and run these complex collaborations. It's intended to help both fledging and veteran consortia better understand their dynamics and to speed progress in medical research. Download a copy at no cost from FasterCures.org/reports.

AGING UPSIDE

The Institute assembled an all-star cast of experts on aging issues, and collected their knowledge in a new book, *The Upside of Aging: How Long Life Is Changing the World of Health, Work, Innovation, Policy and Purpose.* Published by Wiley and edited by Institute President Paul H. Irving, each chapter offers new insights into aging, including: the emotional intelligence and qualities of the aging brain that science is uncovering; the new worlds of genomics, medicine and technology that are revolutionizing health care and wellness; and the benefits that aging workers and entrepreneurs bring to companies. "Increased longevity has contributed to unprecedented global economic growth and new opportunities for personal fulfillment that previous generations could only dream of," says Irving.



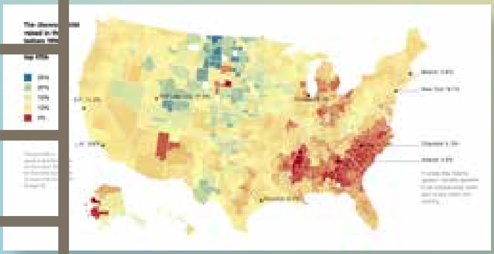
Geography Is Destiny

Horatio Alger is alive and in passable health – well, in parts of America. That, anyway, is the big takeaway from a study released last year that deserves a whole lot more attention. The Harvard-UC Berkeley Equality of Opportunity Project estimated the chances of an individual moving from the bottom fifth of the income distribution to the top fifth. The results varied by region and by city, with the decisive factors seeming to be the degree of racial segregation and income inequality, public school quality, family structure and community cohesion. The big losers are in the South and the Rust Belt. The big winners: the West and the coastal cities with modern service industries. No great surprise there. But the differences are truly shocking, with economic mobility varying by a factor of three. Here's a list of the 10 most mobile and the 10 least mobile cities in the country.

ISTOCKPHOTO

PERCENTAGE REACHING THE TOP FIFTH, STARTING FROM THE BOTTOM FIFTH

MOST MOBILE		LEAST MOBILE	
San Jose, CA	12.9	Cleveland, OH	5.1
San Francisco, CA	12.2	St. Louis, MO	5.1
Washington, DC	11.0	Raleigh, NC	5.0
Seattle, WA	10.9	Jacksonville, FL	4.9
Salt Lake City, UT	10.8	Columbus, OH	4.9
New York, NY	10.5	Indianapolis, IN	4.9
Boston, MA	10.5	Dayton, OH	4.9
San Diego, CA	10.4	Atlanta, GA	4.5
Newark, NJ	10.2	Milwaukee, WI	4.5
Manchester, NH	9.9	Charlotte, NC	4.4



The New York Times, by the way, put together a dandy interactive map online, which shows mobility in hundreds of communities.

— *Peter Passell*

http://www.nytimes.com/2013/07/22/business/in-climbing-income-ladder-location-matters.html?pagewanted=all&_r=2&#map-search