

Why do some countries find their way to prosperity, while others languish in profound poverty? By almost any measure, America in the 1850s was more impoverished than present-day Angola, Mongolia, or Sri Lanka. In sub-Saharan Africa the number of people living in extreme poverty has increased significantly since 1990. The lack of water is the first thing that hits you when you visit a poor community, but there are more than 50,000 broken wells across Africa. **Alleviating poverty is not the same as creating prosperity.** We need to think differently.

Let's define "prosperity" as the process by which more people in a region improve their economic, social, and political well-being. Prosperity breeds increasing freedoms—economic, social, and political. We would not consider a country prosperous when their riches have not bred a culture of inquiry, innovation, and a diversity of markets. We wrote this book for those in the development industry—investors, innovators, and entrepreneurs. Policy makers seek to institute policies that spur development in their countries. We wrote this book for the 10-year-old children all over the world who deserve a better life, and for the fathers and mothers who work tirelessly to provide for their families, but are unable to rise above a life of subsistence.

What if, instead of trying to fix the visible signs of poverty, we create lasting prosperity? Africa is home to 54 countries of more than 1 billion people spread over 11.7 million square miles—more than 3X the size of the US. Struggle represents enormous potential where would-be consumers are desperate to make progress in a particular aspect of their lives but find no affordable, accessible solution to their problem. So, they simply go without or develop work-arounds, but their suffering continues.

Mo Ibrahim founded Celtel, a pan-African mobile telecommunications company. Where there was no power, he provided his own; where there were no logistics, he developed his own; where there was no education or health care, he provided training and health care for his staff, and where there were no roads, he either built makeshift roads or used helicopters to move equipment around. Today, Africa is home to a sophisticated mobile telecommunications industry. Mobile phones have also unlocked value in other industries, such as financial technology, where companies now use phone records as a proxy for credit-worthiness.

For many countries prosperity takes root in an economy when we invest in a particular type of innovation—**market-creating innovation—which serves as a catalyst and foundation for sustained economic development.** Just 18% of Official Development Assistance goes toward "economic infrastructure" projects. The bulk funds education, health, social infrastructure, and other conventional development. But what if we flipped the emphasis to

innovation and market-based solutions rather than conventional development-based solutions?

**Good theory helps us understand the underlying mechanism driving things.** Would-be aviators did not understand the fundamental *causal mechanism* that enabled creatures to fly. In 1738 Daniel Bernoulli outlined his principle, a theory that, when applied to flight, explained the concept of lift. We went from correlation (wings and feathers) to causality (lift). Researchers defined the rules pilots needed to follow in order to succeed in each different circumstance. That's a hallmark of **good theory. It dispenses advice in "if/then" statements.**

There is a toolbox of *theories* that teaches us not *what* to think, but *how* to think about a problem. Good theory is the best way to frame problems so that we ask the right questions to get us to the most useful answers. Focus on the practical question of **what causes what—and why?** If we aren't improving our understanding of what creates and sustains economic prosperity, we will be slow to progress. All good theories apply in context—only useful in certain circumstances. We have found that **investing in market-creating innovations has proven a reliable path to prosperity for countries around the world.** Our theory describes the process by which the creation of new markets impacts a society.

Critical drivers for creating and sustaining prosperity for many countries: find opportunity in struggle, invest in market-creating innovations, and execute a "pull" strategy of development (in which the necessary institutions and infrastructures are pulled into a society when new markets demand them). Innovation refers to *a change in the processes by which an organization transforms labor, capital, materials, and information into products and services of greater value.* Market-creating innovations transform complex and expensive products and services into simple and more affordable products, making them accessible to a new segment of people in a society whom we call "nonconsumers."

Often nonconsumers can't afford existing solutions or lack the time or expertise to use them. Successful market-creating innovations have 3 distinct outcomes. They 1) create **jobs** as people are required to make, market, distribute, and sell the new innovations. 2) create **profits** from a wide swathe of the population. The profits then fund most public services, including education, infrastructure, health care, and so on. And 3) have the potential to **change the culture** of entire societies.

In the US innovations like the Singer sewing machine, Eastman Kodak's film cameras, and Ford's Model T cultivated a culture of innovation that drastically changed American society. Once new markets that serve nonconsumers are created,

they “pull” in other necessary components—infrastructure, education, institutions, and even a change in culture—to ensure the market’s survival.

Ibrahim built Celtel, developing an innovation that made a historically complex and expensive product more affordable so that millions of people could more easily access it. Because he pulled only the resources needed into a new, large, and profitable market he created, the things he built were sustained. Celtel also focused on local citizens. Ibrahim introduced prepaid cards for as little as 25 cents. 99% of the jobs he created were held by native Africans. By understanding how market-creating innovation can ignite and catalyze good governance, we can help create long-term, sustainable prosperity.

We categorize innovation into 3 types—sustaining, efficiency, and market-creating. While all are important to a vibrant economy—market-creating innovation provides a strong foundation for sustained prosperity. When a country’s prosperity is not improving, it might not have a *growth* problem. It might have an *innovation* problem. Each type plays a role for organizations trying to sustain growth. Innovation changes the process by which an organization transforms labor, capital, materials, and information into products and services of greater value. Invention describes the process of creating something entirely new. Innovations often borrow from one country to another and from one firm to another, and improve upon them. Focus on what causes what to happen—and why. If we understand what type of innovation causes what to happen, we can harness it for our goals.

*Sustaining* innovations improve existing solutions on the market targeting customers who require better performance and can afford it. Sustaining innovations are *substitutive* in character. But companies need to develop a different strategy for customers in a different segment. Examples of a sustaining innovation range from faster processors in our computers to more memory in our phones.

*Efficiency* innovations enable companies to do more with fewer resources. In 1980, for example, 220,000 employees in the oil and gas extraction industry produced 8.6 million barrels of oil per day. By 2017 employment had fallen to 146,000 but production increased to over 9.3 million bbls/day. These innovations free up cash flows, but rarely add new jobs to an economy.

*Market-creating* innovations create new markets for whom no products exist. They serve as a foundation for many of today’s wealthy economies, and have helped lift millions of people out of poverty in the process. They not only create markets, but jobs, too.

**Local jobs** must be created to serve the local market. **Global jobs** more easily move to other countries to take advantage of lower wages. When local entrepreneurs innovate and

reap the rewards, the returns more likely fund future innovations locally.

Most new markets don’t make sense at their formation, especially to industry experts. To target market-creating innovations 5 attributes help: 1) Targeting nonconsumption: the inability of a would-be consumer to purchase and use a product or service. 2) Enabling technology: improve levels of performance at progressively lower cost. 3) New value network: redefine the cost structure of nonconsumers. Celtel did this by changing how people purchased cell phone minutes. 4) Emergent strategy: learn and modify strategies based on feedback from new customers you are trying to serve. 5) Executive support: Market-creating innovations require support from the CEO or someone high up in the executive team.

The Ford Motor Company failed to retain its 1921 60% share of the market because it failed to invest in sustaining innovations. General Motors, which gave customers such things as new models every year, the ability to purchase cars on credit, and different colors, by 1936 became number one in the market with 43% share.

Market-creating innovations are especially powerful because they target large swathes of the population with a solution that helps them with a struggle. It has the potential to create significant gains for investors, innovators, and society. It has 3 distinct outcomes: *profits*, *jobs*, and the most difficult to track, but perhaps most powerful of the 3, *cultural change*. When many people understand that they can solve their problems in a productive manner—that is, by participating in the new market as investor, producers, or consumers—they are more likely to change the way they think about their society. We have found markets to be a powerful force to pull into societies components that make societies safer, more secure, and more prosperous. By investing in market-creating innovations, investors and entrepreneurs inadvertently engage in nation-building.

In the struggle lies opportunity. It is difficult to “see” what you’re not looking for. Those who need insurance most are least likely to have it. “We realized we weren’t competing with giant insurance companies; we were competing with apathy.” Nonconsumers are the “non-consumption economy.” **4 barriers** prevent people from consuming a solution that will help them progress: **skill, wealth, access, and time**.

The Theory of *Jobs to Be Done* explains why people make the purchasing choices they do. If the product we hire does the job well, we will hire it again. Successful market-creating innovations emerge from unfulfilled Jobs to Be Done. Once innovators understand the Job to Be Done well enough,

they will be able to create a solution that will cause nonconsumers to “fire” apathy or whatever workaround they have created, and hire their solution instead. The “push” of the situation—the frustration or problem that a customer is trying to solve—has to be substantial enough to act. The “pull” of an enticing new product or service to solve that problem must be strong, too. Opposing the change are “habits of the present” that weigh heavily on consumers. The allure of the old is that it requires no deliberation. There is also loss aversion, which is twice as powerful as the allure of gains.

Companies are often blinded by their existing business models and market research tools. While major struggles exist for hundreds of millions of people, an entrepreneur must build a viable business model to address them. Once done, the opportunity looks obvious. Focusing on nonconsumption provides the best opportunity to ignite new growth engines for companies and help communities provide jobs and income.

24% of those who enter a hospital in India leave below the poverty line, the toll of both lost wages and hospital bills. Every year we spend billions of dollars attempting to help low- and middle-income countries develop. These funds primarily *push* resources, but development and prosperity take root as we innovate and *pull in* resources a society requires. Stakeholders are often incentivized to help maintain resources the innovation has *pulled in*—such as infrastructures, education, and even policies. 1 in 10 deaths in India attribute to poor sanitation, with diarrhea the leading killer of children. Stunted growth impairs millions more as a result of contaminated water.

Poverty is painful and shows itself as a lack of resources such as food, sanitation, safe water, education, health care, and public services in poor communities. Over the past several decades we have executed an expensive *push strategy* of development that is almost exclusively resource-based. Efforts to push toilets into India at a rapid pace show that push strategies don’t always take root. A school, a hospital, a road, an airport, and even a toilet are all good investments, but when made in the wrong sequence, they may cause more harm than good. Push strategies treat poverty as a chronic disease to be managed, and for which there seems to be no cure. In the US more than 80% of the \$2.7 trillion in annual health-care expenditures go to treat chronic diseases—diseases treated but not cured.

*Push* strategies often drive the priorities of their originators into a context not ready to absorb them. Education takes root far more successfully when pulled into a responding to demand from an economy than can absorb the knowledge and skills being taught to students.

Tata Consultancy Services (TCS) is one of the largest private-sector employers in India. It has pulled “digital education” into its business model. When it trains employees—new

or existing hires—it is usually based on market demand or project specifications, and the education relates almost immediately. Pull strategies trigger sustainable prosperity originated by innovators on the ground far more effectively. They have more of an investigative or inquisitorial approach to problem-solving than an advocacy or assertive approach. Every quarter, for instance, TCS takes stock of the skills it needs to pull into the organization and invests accordingly. Also, pull strategies focus on creating, or responding to the needs of a market, a burning need to make something work.

Perhaps the most beloved consumer product in Nigeria is also one of the humblest: Indomie instant noodles. Sold in single-serving packets for less than 20 cents, it is a household brand name there. Tolaram (which produces and markets Indomie) invested more than \$350 million to create tens of thousands of jobs, develop a logistics company, and build infrastructure including electricity, sewage, and water treatment facilities. In addition, Tolaram built educational institutions, funded community organization programs, and provided millions of dollars in tax revenues. It led in developing a \$1.5 billion public-private partnership to build and operate the new Lekki deep-water port in the state of Lagos, Nigeria’s commercial capital. It shows that out of very little, a market can be created—and with the birth of a market come attendant benefits that can lead to development.

The decision to target the needs of average Nigerians who were very poor compelled Tolaram to make long-term investments in the country. In 1995, the company shifted noodle manufacture to Nigeria to better control costs. To do so, it pulled infrastructure such as electricity, waste management, and water treatment into its operation. Just like TCS, it also got into the “education” business through company-sponsored training in electrical and mechanical engineering, finance, and disciplines relevant to the business. Infrastructure in Nigeria was either nonexistent or subpar. So Tolaram “pulled” them in. When Tolaram pulls a recent graduate from a local university into its operations and employs and trains them, it increases the productivity of its own operations and, by extension, that of the region. It also reduces unemployment and indirectly reduces crime. This contributes additional income taxes and consumer spending. For executives at Tolaram, these effects resulted from growing their business. Tolaram’s managers also invested in a supermarket supply chain. This required it to build an entire distribution and logistics business. This meant the building of distribution warehouses and storefronts, purchasing hundreds of trucks for its fleet, and hiring thousands of drivers who would drive into neighborhoods selling cartons of Indomie noodles to retailers in both independently owned and Tolaram-owned stores.

In many poor countries companies don't see distribution as a core part of their business model. But at this stage of development, it must; in fact, investing in *both* affordability and availability is paramount to the success of a market-creating business. **A market-creating innovation isn't simply a product or service—it is the entire solution.** In creating this solution, organizations do what is necessary, including building infrastructure, factories, distribution, logistics, sales, and other components of their business model. These, in turn, found a region's infrastructure. This is no different from what the Ford Motor Company did when the circumstance called for it.

Tolaram achieved a stunning 36% year-over-year growth—in a market it created—17 years in a row. It internalized the risks that others perceive. This is behind the new Lekki deep-water port in the state of Lagos. “As we create a market, we do what is necessary to ensure success.” This matters because Indomie noodles represent the *process* by which poverty, through innovation, can become prosperity. It illustrates the immense potential of market-creating innovations to pull resources into an economy. Localizing an innovation is necessary for success. Because of its investments and success in Nigeria, Tolaram attracts hundreds of millions of dollars of foreign direct investment from major international companies into Nigeria. The noodle market acts as a magnetic force that ensures educated students get employed, government revenues are generated to fund other projects, and new technologies get developed and used productively.

The decision to integrate certain aspects of its business model or outsource them depends on a theory we call interdependence and modularity. A company should develop an interdependent (integrated) business model when it cannot depend on suppliers for specifiable, verifiable, and predictable inputs. When Tolaram began operating in Nigeria, it partnered with several other companies for its packaging and logistics needs. It also depended on suppliers for wheat, flour, and oil. But because these companies weren't reliable, it integrated them into its business model. When other companies, many of which also needed these things, saw that Tolaram could *reliably* provide them, they began asking Tolaram to sell those services to them. And just like that, a cost center transformed into a profit center. That is the power of pull.

The investments these companies make are not just the company's infrastructure; they become the country's as well. But perhaps most important of all is that market-creating innovations instill in citizens a culture that *innovation* is possible. This is crucial because it is often in the *process* of developing market-creating innovations that a company pulls in the many things currently pushed onto poor countries in hopes of spurring innovation, development, and growth. We see push initiatives

in new schools that lose their value and deliver subpar education; new roads that become difficult to maintain. Nothing remains permanent.

Consider the sanitation problem in India through the lens of identifying a vast market-creating opportunity, the approach of the Toilet Board Coalition (TBC). They've identified a \$62 billion opportunity in India alone. Each year over 3.8 trillion liters of human waste are generated which could be used to produce treated water, renewable energy, organic fertilizers, and protein products.

Nigeria's “Nollywood” industry serves Africans and Africans in the diaspora. It produces 1500 movies annually, 2<sup>nd</sup> only to India's Bollywood. Nollywood's annual revenue of \$1 billion employs more than 1 million people, 2<sup>nd</sup> only to the agriculture industry.

We are the first generation in human history that can end extreme poverty, but this won't happen if we continue our focus on ending poverty. That's the paradox at play.

Imagine a country where average life expectancy is just 45, infant mortality a staggering 200 deaths per 1000 births, and fewer than 5% of people have access to indoor plumbing. The average person spends 54% of income on food, there's little help from the government, and corruption is rife at all levels. This was the US in the 19<sup>th</sup> century. America was once desperately poor—poorer than some of today's most underdeveloped countries. The typical North Carolinian woman walked 148 miles and carried more than 36 tons of water/year, just fetching the daily water for her family. The murder rate was double that of 2016. Local, state, and federal government officials engaged in rampant corruption. Many children, some as young as 11 years old, began a “career” in factories and mines where they were paid a pittance.

But a generation of American innovators and entrepreneurs began to change America's circumstances. The real revolution after the Civil War was not political, but economic. Singer's sewing machine enabled an *unskilled* person to produce 900 stitches a minute. That cut the average time it took to stitch a shirt from 14 hours to just one. By 1883 demand for these machines was so high that Singer produced 10,000 machines a week. This led to vast numbers of jobs in sales, distribution, maintenance, manufacturing, advertising, training, bookkeeping, and beyond. Small shops open in the poorest districts of New York and Chicago to serve as subcontractors to large manufacturers. The clothing industry—which doubled in size between 1860 and 1870—enabled a customer to shop at newly emerging department stores. This led to booms in the steel, wood, and cotton industries. Singer built rail lines to more efficiently transport their sewing machines and a turbine power

station for the factory in Podolsk, Russia. In 1890 the US federal government managed the military, foreign policy, land, the treasury, and tariffs--and not much else.

Photography was very expensive and impractical until George Eastman set up the Eastman Kodak Company. His idea was to "make the camera as convenient as the pencil." He understood the Job to Be Done, that people wanted to capture the precious moments of their lives. "You press the button; we do the rest." Eastman developed a business model that focused on the customer, mass production at low cost, worldwide distribution, and extensive advertising. In the 1890s fewer than 10% of Americans were in secondary school and fewer than 10% of America's roads were built (that would happen after Henry Ford's Model T).

For transformative development, innovators must first imagine a different world. Most people still had no access to electricity and few children made it to secondary schools. Most people lived close to where they worked and played. Henry Ford built a successful business model that targeted nonconsumption, pulling in "non-core resources" to successfully accomplish a Job to Be Done. Today, we call this vertical integration, but back then innovators simply understood it as doing what was necessary to create a new market. Ford's company ran blast furnaces for steel, timberlands, coal mines, rubber plantations, a railroad, freighters, gas stations, sawmills, and glassworks. They became America's infrastructure, too.

In the early 20<sup>th</sup> century, New York City officials dealt with 45,000 tons of horse manure monthly. As the car became ubiquitous, improved roads followed. Even more important is what they enabled. Rural school attendance in the US stood at 57% before the emergence of good roads. After they were built attendance spiked to 77%. The cost of moving a ton of freight dropped from 22 cents a mile on an unimproved road to 12 cents on better roads.

Turnover at Ford's manufacturing plant skyrocketed to 370% annually as a result of mass production. Then in 1914, Ford instituted a \$5/day minimum wage, essentially doubling pay for his factory workers. He later changed what had been a 6-day workweek into a 5-day one. "People who work only 5 days a week will consume more goods than those who work 6 days a week," he said. With such moves improving efficiency, Ford reduced the price of the Model T from \$950 in 1909 (~\$25,000 in 2018 dollars) to \$260 in 1927.

In 1904, Amadea Giannini founded the Bank of Italy in San Francisco. He focused on the "little fellows," whom the other banks wouldn't serve. That's how it, renamed to Bank of America, which became the onetime largest commercial bank in the world was born. Giannini converted millions of Americans from nonconsumers of financial services to consumers. At the core of any market-creating innovation is a business model

that profitably democratizes an innovation so that many more people gain access. When lending to hundreds of thousands of people, these systems were essential. Giannini had his staff check on the business practices of people they lent money to, to ensure that they were running their firms well. For many of their agribusiness customers to succeed in marketing their products in faraway markets, they established cooperatives. Our parents and grandparents were able to understand the value of saving money, of compounded interest, of making investment choices.

There were many great stories from which to choose. Samuel Insull built the Commonwealth Edison Company to deliver inexpensive electricity throughout America. He gave away electrical appliances to increase demand. Sara Walker targeted nonconsumption of cosmetic products in African-American communities. We've built a culture of innovation.

Prosperity is a process, not an event, one that requires continuous commitment to innovation. In 1950 the per capita income of Japan was less than Mexico and Columbia. Food was rationed and millions starved. The Japanese were very poor and the occupying Government Headquarters limited monthly production of trucks and passenger vehicles to just 1500 and 350 respectively. "Made in Japan" signaled dubious quality. Sony was just one of the plethora of Japanese companies focused on developing innovations for markets that did not yet exist. Both South Korea and Japan's transformation seemed to defy logic. Their rise from poverty to prosperity offers several lessons.

Entrepreneurs with an eye for local needs drive market-creating innovations. Because locals are immersed in the struggles of average everyday citizens, they can translate them into viable innovations and economic opportunity. They instill a sense of pride in their citizens, driving home the fact that locals can solve their own problems. Integration is necessary for countries at an early stage of development. Sony had so few resources that it couldn't afford machinery and equipment, so engineers created their own. They made soldering irons, electrical coils, and even screwdrivers, often working into the early hours of the morning, sometimes being mistaken for thieves by the local police, as they tried to get in and out of the building at odd hours.

Large corporations find it difficult to target nonconsumption and create new markets. Sony started selling a recorder, a portable magnetic reel-to-reel tape-recording device. Recording previously required special complex technology and was very expensive. After tepid sales, they mobilized virtually all of the company's engineers into sales roles. Markets don't just appear or happen; they must be created. In 1955 Sony introduced the world's first battery-powered pocket transistor radio, targeting the hundreds of millions of people for whom vacuum tube radios were too large and expensive and later the first portable solid-state black-and-white TV, videocassette players,

portable video recorders, 3.5-inch floppy disk drives, and, of course, the now-famous Walkman. Walkman went on to sell over 400 million units and created a culture of personal music devices. With each product Sony released and market the company created, it developed a profitable business model that targeted struggles of average Japanese people.

Consider Toyota whose low-cost, compact Corolla is the best-selling car of all time. Toyota created a local market in Japan that pulled in marketing, sales, distribution, training, servicing, and supporting products pertaining to the auto industry. Their attitude toward training and education for its workforce: “It is people who make things. So, we must first make people before we make things.”

Before the emergence of the Japanese motorcycle industry, motorcycles were very expensive in Japan. Several companies saw the need for Japanese people to move around more freely and cheaply. Over time, as more motorcycle companies sprang up in Japan, these firms created the Hamamatsu Motorcycle Manufacturers’ Association. In the 1950s Honda, Kawasaki, Suzuki, and Yamaha emerged and created new markets by targeting nonconsumption. Suzuki swiftly adapted its offerings for younger consumers with a low-end 60cc bike. In 1952 Honda launched 50cc to target small businesses that needed delivery vehicles but couldn’t afford large ones. After years of improving their products, they were able to export to nonconsumers in the US and Europe. The same pattern was seen with Panasonic, Sharp, and Nintendo in consumer electronics, and Canon, Kyocera, and Ricoh in office equipment, starting in Japan first. Japan rose out of the ashes of the war with ideals and goals that created a culture of innovation and opportunity.

By 1953 Seoul had changed hands 4 times, each time with bitter fighting between rival parties. There was little electricity and just about the only industry the country had was textiles. North Korea was more industrialized than South Korea. Innovation played an important role in “The Miracle on the Han River.” By 1952 Kia had developed its first bicycle and then began building Honda-licensed motorcycles. In 1962, Kia built the 3-wheeler K-360 pickup. It was not until 1974 that Kia released its first passenger vehicle. Its strategy of first targeting nonconsumption prevented it from competing head-on with established auto manufacturers. Like Sony’s initial products, many of Samsung’s early products were of poor quality. In 1994, Samsung developed the world’s first 245 DRAM chip, and by 1998 introduced the world’s first mass-produced digital TV.

Innovation is contagious and often feeds other innovations. Consider how POSCO—formerly Pohang Iron and Steel Company—impacted development in South Korea. It is now

one of the world’s largest steel manufacturers. Its initial strategy of meeting domestic demand for steel helped it get on its feet. In its humble beginnings, employees slept in makeshift shelters at the company site and ate rice mixed with sand to help themselves feel more full. Continuous innovation by South Korean firms helped it create and sustain its prosperity. The economic freedoms ignited by this growth in prosperity are making way for political freedoms previously unthinkable in the country. Prioritizing investments in market-creating innovations provides poor countries a viable path to prosperity.

Many companies have invested heavily in Mexico’s *efficiency* innovations, but this can only take an economy so far. “Diabetes is a catastrophe in Mexico,” observes Javier Lozano after he earned his MBA at MIT. Uncontrolled diabetes is the leading cause of death, amputation, and blindness and in his home state of Nuevo Leon it is the leading cause of suicide. Options for improving their situation felt overwhelming. Lozano realized he’d have to make a business model that worked with what people could afford and set out to create what he calls the McDonald’s of diabetes care—a one-stop shop to deal with all the issues related to caring for diabetes. For an annual membership of about \$250, diabetes patients and their supporters can visit any clinic location and quickly run through various “stations” that address each challenge of tracking and managing their diabetes. The Clinicas de Azucar are now the largest private provider of diabetes care in Mexico, with 12 clinics and a path to reach 200 in the next 5 years. The clinics have treated more than 30,000 patients, 95% of whom say it’s their first-time receiving access to specialized care. To date 10 more companies have sprung up throughout the country, following his model.

Mexico is not a poor country. Its proximity to the US, the richest country in the world, is an advantage. It has had a free trade deal with the US and Canada since 1994. It remains one of the countries most open to trade in the world and has levels of labor productivity similar to those of most major economic powers. Mexico has also maintained a relatively stable macroeconomic environment and has kept interest rates and inflation low over the past few decades. But somehow, even with all these factors, widespread prosperity still evades it.

Mexico is a magnet for *efficiency innovations*. But those by themselves do not often lead to vibrant economic development. They only support the creation of *global jobs*, which can be easily moved elsewhere. An efficiency innovation-based strategy which enables companies to squeeze as much as possible from existing assets typically sells its products into the “consumption economy,” those who can already afford existing products. Managers increase margins for each product by cutting costs. Outsourcing is one of the most tangible examples of efficiency innovations. Profits generated from increasing prices



and decreasing manufacturing costs went primarily to Ford and its shareholders, as the company has not fundamentally changed the cost structure of its business model. It is the country where the products are sold that reaps the rewards—in this case the US.

Overreliance on efficiency innovations hasn't brought sustained and widespread prosperity to Mexico because these investments are often too easily moved elsewhere. The foot-loose nature of efficiency innovations does not enable them to create vibrant markets that can pull in other components of a thriving economy, such as good schools, roads, or a health-care system, which can all be sustained by the local economy. Since 1990, average annual wages have increased by just 13%, while increasing in the US and South Korea 37% and 65% respectively.

Resource extraction industries are notorious for fueling investment in efficiency innovations. The core of Russia's economy, much like Mexico's, over relies on these. This often promotes short-term, fragile investments that leave societies in a precarious position. In these regions, we look for the daily struggles that hundreds of millions of people face, and *there* we see opportunity.

43% of Mexicans have a visual deficiency for which they seek corrective eyeglasses. A company called Opticas is analyzing it through the lens of *struggle*. They have developed a simple business model that provides prescription lenses for \$17. It's fiercest competitor for this market on nonconsumers is *nothing*. Opticas has performed more than 250,000 eye tests and sold over 150,000 pairs of glasses.

Emerging markets are peppered with opportunities to create new markets that can yield significant returns if you know where to look. Once a market is created, it is difficult to destroy. Markets fundamentally change the way people live their lives, and when you create a market, the rewards can be abundant. Grupo Bimbo in Mexico City is the source of Thomas' English Muffins, Sara Lee, Entenmann's, and Canada Bread, and is the largest bakery in the world. The founders envisioned ways to make bread and distribute it to the average person in Mexico City. They created a new market for fresh bread in Mexico. In 1945 the average Mexican mostly had access only to moldy bread wrapped in opaque packaging. Bimbo's first product innovation was wrapping its bread in cellophane bags—so customers could see that they were buying mold-free bread before they brought it home. They built and acquired several flour mills and began selling excess output to outside customers. To reduce dependence on foreign wheat, Bimbo invested in Mexican farmers. It provided them capital to purchase quality seed stock and then purchased their harvest. Bimbo executives realized they needed to supplement the edu-

cation their new hires were receiving from the traditional Mexican schooling system. And so, they created a structured 2-year management program where employees learned both technical skills and the intricacies of the Bimbo business. It has enabled the flourishing of markets that its thousands of employees support, including their housing, education, health care, transportation, and leisure. These vibrant markets are deeply rooted in the local economy. Markets are sustainable because they connect to the local population. Bimbo pays its lowest-ranking staff more than 3X the Mexican minimum wage and still keeps its prices 15-25% lower than its competitors.

We cannot fix problems with the law, systems, and institutions by adding another law, system, or institution. Ultimately, **institutions are about culture—how people solve problems and progress**. At their core, institutions reflect what people value. And it turns out that homegrown innovation can play a critical role in this process.

In the spring of 1990, 2 dozen people gathered in Prague to participate in a constitutional convention for Czechoslovakia. 2 years later a constitution was adopted as part of the peaceful breakup of the country into 2 new ones: the Czech Republic and Slovakia. Similar rituals happened in Romania, Hungary, the former Yugoslavia, and Bulgaria. Good economic and political institutions protect secure property rights, democratic pluralism, open markets, and consumers. Alternatively, bad institutions protect oligarchies, single-party systems, crony capitalism, nepotism, dysfunctional judiciaries, and rampant corruption. In general, poor countries are overwhelmed with bad institutions, while prosperous countries are filled with good ones, or at least much better ones. Conventional wisdom suggests that countries that tackle poverty must first establish the rule of law, fix their institutions, and adopt Western-style systems before they can progress toward prosperity.

But that is often not how the march to healthy institutions plays out in reality. For example, corruption is still prevalent throughout the Czech Republic. It is an *evolving* country with evolving institutions. One feature of an economy with vast nonconsumption is the lack of infrastructural and institutional competency. Without understanding the complex local social structures of a society, many of the *pushed* institutions fail to deliver efficiency and transparency. Instead, they may breed confusion and corruption. **The institutions of a society reflect its values rather than create them**. Outside experts tend to focus on rules, which may not make sense in a different context. Values dictate how problems are solved and how people work and live together. Effective institutions cannot simply be pushed in. They require pull.

Not only do many programs focused on institutional reform eventually fail, but we keep doing the same thing over and over again. And failing, over and over again. We fail to

deinstitutionalize the status quo. We measure success on how well a system resembles another system that works versus whether it actually solves a particular problem. It's common to define culture as the visible elements of a working environment. But those things don't define a culture. They're just artifacts of it. Culture is a way of working together toward common goals that have been followed so frequently and successfully that people don't even think about trying to do things another way. If a culture has formed, people autonomously do what they need to succeed. Those autonomous instincts are the result of *shared learning*—of people working together to solve problems and figuring out what works. **Every time they tackle a problem, they aren't just solving the problem itself; they are also learning what matters. They are creating or dismantling culture.**

An *institution* reflects the culture or pattern of behavior that has been codified. In Nairobi, for example, a number of entrepreneurs indicated that “overcontracting” might imply a distrust among business partners. We must understand how laws—both in letter and in practice—impact different aspects of human behavior. Most successful institutions grow out of culture, not the other way around. Europe has taken hundreds of years of trial and error, and success and failure, to build such a culture. The development of domestic institutions in Venice helped it become a world capital of trade as far back as 800 AD. The period in Venice from about 1000-1297 saw the rise of many modern-day institutions, one of which was the *Colleganza*. It was innovative because it limited liability for each partnership and the *Collegians'* joint stock of the partners. This allowed poorer merchants to participate in long-distance trade, an activity historically reserved for the rich.

Market-creating innovations make historically expensive, complex, and out-of-reach products and services accessible to a new class of consumers who could not afford them, thereby creating a new market for the democratized solutions. When a new solution is able to pull the poor into consumption of a product or service, it can have a vast impact on society. The *Colleganza* brought many poorer merchants into the investing class, increased economic mobility, international trade, wealth, and ultimately, political power. If there are no jobs that reward people, they find other means of getting rewards, many of which will not be productive for society. Once wealth began to democratize, the balance of power began to shift, and a growing number of wealthy merchants were capable of challenging the doge. And they did. They enacted and enforced a system of elections; ensuring that the office consulted with judges and abided by the judicial decisions; and established a parliament known as the Great Council. Other institutions arose which reinforced the role of business, innovation, and investment in societal development. Financial innovations in Venice included markets for debt, equity, and mortgage investments; bankruptcy

laws that distinguished illiquidity from insolvency; double-entry accounting methods; business education; deposit banking; and a reliable medium of exchange (the Venetian ducat).

The country of Georgia went through the arduous efforts of streamlining taxes and cutting regulation to “catalyze private industry and create jobs.” But reforms have not led to a government that effectively catalyzes employment-generating production. No matter how well-intentioned an institutional reform, if it is not connected to innovations that create or connect to markets that serve as many people in a region as possible, it will be difficult to sustain.

Innovations, especially those that create new markets, typically precede development and sustenance of good institutions. Institutions must be built with the local context in mind. Innovation is the glue that keeps them together. Good institutions are expensive to create and maintain and often don't work when placed in a society without the relevant markets to absorb what they offer. If we begin by helping people make progress in their local economies, change in their culture and institutions will follow. History bears this out.

It is one thing to create institutions and quite another to sustain them. Prosperity is a process, not an event. Institutions are the same. As quickly as many of the prosperity-supporting institutions in Venice were built, they were destroyed by a group of very wealthy and influential merchants who sought to curb competition. This killed the market in Venice, ultimately causing the city to decline. While the rest of Europe grew in the 17<sup>th</sup> and 18<sup>th</sup> centuries, Venice declined in population and wealth. Institutions reflect a culture; they don't cause it. So, when the culture in Venice was allowed to change, so did the institutions. This behavior is the norm in many societies. Those who can use the law to their advantage almost always do so. Innovation can serve as a great equalizer. The more that innovators democratize solutions, the more they can remain strong.

In Latin American countries, as much as 70% of labor operates in the informal economy. In South Asia and sub-Saharan Africa, that hovers around 90%. Maties Recchia, an alumnus of Harvard Business School and McKinsey and Company, and his partner Andres Bernasconi started *IguanaFix*, an online service connecting consumers with reliable, transparent contractors in Argentina. In its first 3 years *IguanaFix* attracted more than 25,000 contractors in 4 countries into the formal economy, with thousands more on a waiting list. Through Recchia's understanding of the struggle of both customers and contractors, his creation of a new market has made it profitable to be more honest and transparent. By joining the formal market, service providers can access corporate customers, health and work insurance, open their first bank account, and access financing. *IguanaFix's* contractors have come to understand that



by joining the formal economy, they will better control their work schedules, lives, and wallets. *Procedures are not instruments of morality; but of economy. They never decide what should be done, only how it might be done better.* IguanaFix is creating a new market enabling tens of thousands of home improvement providers to *pull* into their lives the legal, economic, and political institutions that several Latin American governments have long been trying to *push* onto their citizens.

History has shown that successful economies develop in spite of widespread corruption. In today's most prosperous countries, proper enforcement of laws against corruption followed investments in innovations that either created new markets or grew and connected to existing ones. Corruption was a matter of survival that kept daily life greased on both sides of the power balance.

Why is overt corruption so much more pervasive in poorer countries than in rich ones? How did many of today's prosperous countries become less overtly corrupt? Corruption may be the better way, a *workaround*, a utility in a place where there are few better options. Most individuals in society want to progress, but when society offers few legitimate options to do so, corruption becomes attractive. Also, every individual, just like every company, has a cost structure. If anticorruption programs don't fundamentally affect the revenue-cost equation, they are unsustainable. Most individuals will subvert the prevailing law enforcement strategies in order to progress or benefit themselves.

To live according to the laws established by the state requires effort the average rational person compare the benefits of obeying the law with the consequences of disobedience. If the scale tips toward disobedience, then it is *irrational* for him to obey the law, no matter how "good for society" it might seem. The path from a society steeped in corruption to one where trust and transparency thrive typically follows a predictable pattern with 3 phases: overt and unpredictable corruption; covert and predictable corruption; ultimately transitioning to what we will call a "transparent" society. Understanding how these phases evolve is essential in our quest to create the transparency required for healthy economies. Many poor countries are unable to enforce the law. Law enforcement is costly—financially, socially, and politically. Corruption is about "hiring" the most expedient solution for the greatest good from the options available to us.

New laws only help solve a problem when there is confusion about what to do and governments can enforce them. In the US lobbying (trying to influence lawmakers) is legal and fairly transparent. Corruption is often exposed, prosecuted, and punished. But there was a time when corruption in America rivaled corruption in some of the poorest countries today. Amer-

ica, over time, found its safeguards. As more and more Americans created wealth for themselves and found better ways to make a living, their voices of dissatisfaction with corruption became louder. America's development happened *in spite of* the widespread corruption and unpredictability. Anticorruption came about because the fundamental equation of how average and rich Americans could make money, progress and make a living. *Development often precedes successful anticorruption programs, not vice versa.* Corruption often stands out as the most viable option. But when a better way presents itself, the process that leads to transparency begins.

Monarchs have been likened to robbers permanently on the prowl, always probing, always searching for something to steal. Europe's transition from overt corruption to transparency was triggered by innovations that created new markets for many nonconsumers, which offered viable options for the average person to make a living. The new markets also forced the hand of governments to more creatively tax and govern their citizens. Monarchs innovated new ways of tapping the private wealth of their citizens. Among the most significant was the creation of parliaments, a forum in which they could trade concessions in public policies for the payment of public revenues. A new type of economy emerged—from one that plundered wealth came one that *sought its creation*. Investors who typically loaned monarchs' money, and whose monies were now more mobile as they were no longer tied to land, caused monarchs to create less corrupt and more transparent institutions.

Unpredictability in a system, even one rife with corruption, might be more harmful than corruption itself. As European markets grew, the court systems grew as well. This affected the culture of the average European, and caused them to place immense value on these new transparent institutions. There needs to be a good enough reason for people in society to want to obey the laws of the land. Think of how difficult it has been for the government of Argentina to get small contractors to declare their income in order to pay taxes. But IguanaFix, by offering them something beyond moral responsibility—the ability to make progress in the struggles of their own lives—was able to change that. As societies invest more in innovation, which creates prosperity for their citizens, their corruption-fighting systems will slowly improve.

Without simultaneously providing a *substitute* for what people can hire, corruption will be difficult to minimize. If a country can't enforce the laws on the books, it will matter little how many new laws, institutions, or public mandates are created to combat corruption or impose transparency. If they enable the creation of new markets that help citizens solve their everyday problems, once enough markets are created, people have an interest in those markets succeeding. Governments generate more revenue to improve their courts, law enforcement,

and legislative systems. In addition, markets provide jobs that give people a viable alternative to accumulating wealth through corrupt means. Asking people to fire corruption without giving them anything else to hire is unrealistic and often doesn't work.

Many large companies in emerging markets vertically and horizontally integrate operations that seem unnecessary in more prosperous countries. The more components of a business that it brings in-house, the more opportunity to reduce corruption. Corruption for most people, especially in poor countries, is simply a means to an end. The best strategy to curb it is to create new markets. In the music industry in America about 2000, in rapid succession, a culture of piracy and illegal music sharing gave way to one in which customers opted to pay for streaming music instead. The personal mixtape was the most widely practiced American art form, as it became a nation of thieves who stole music. And few people outside the music industry seemed to care. By 2014 piracy was becoming too expensive and time-consuming—after a certain point, it was cheaper to subscribe to Spotify and Netflix. A legal business offered a product that was superior to what was available underground.

Poor infrastructure is one of the most visible signs of poverty and a reason poor countries cannot escape their cycle of poverty. Without a serious commitment to fostering innovations that create new markets or support existing ones, many infrastructure projects fail. America progressed rapidly 150 years ago. Successful infrastructure projects grow up with companies and improve as economies develop. Good infrastructure comes where there are markets that can absorb the cost of building and maintaining it.

Today, companies around the world often lead infrastructure efforts that are essential to scale their businesses. When we properly communicate opportunity, capital follows. When infrastructure projects connect to market-creating innovations, they become more viable and attract capital for construction and maintenance. Many good ideas languish within corporations because middle managers fail to communicate the value of projects in relation to how the organization makes money. Infrastructure projects, especially in poor countries, are similar.

Facebook and Microsoft built a significant digital infrastructure called MAREA—a 4000-mile transatlantic subsea cable between Virginia and Bilbao, Spain. Properly categorizing problems, solutions, and ideas is key to improving our knowledge of how the world works. If we don't categorize things properly, we can never truly make sense of the problems we are trying to solve. Infrastructure is no different. Infrastructure is either **hard** or **soft**. Hard are things such as roads, bridges, and the energy and communications systems of a re-

gion. Soft are things like the financial, health-care, and education systems. *Infrastructure is the efficient mechanism through which a society stores or distributes value.* 2 important attributes of value: 1) linked to the value it stores or distributes. 2) justified—and ultimately contribute to—the cost of construction and maintenance of the infrastructure.

Infrastructure serves a purpose. By themselves they don't create value—they distribute or store it. Unfortunately, many poor countries build schools that are not distributing real value to students. *Schooling is not the same as education.* Even though primary school enrolment in most low-income countries is now almost at the level high-income countries, the quality of education couldn't be more different. In Ghana, Nigeria, South Africa, and Kenya unemployment among graduates continues to soar. The value these schools distribute to students is low. **Infrastructures are only worth the value they distribute to citizens.** If they cannot efficiently, profitably, and sustainably distribute value to citizens, they are unlikely to last.

The issue isn't the absence of rail (infrastructure) per se, but the absence of value (innovations to move across the rail). When the development of infrastructure is pulled into society by innovations that create new markets, investments become more stable. In India we see how Aravind Eye Care System, now the world's largest and most productive eye hospital, pulls in the infrastructure it needs to provide health care for millions of people. Their business model not only involves the extensive training of its medical personnel so that they are optimized for work at the hospital, but it also includes manufacture of intraocular lenses and several other activities.

Sequence matters. History is full of examples of creative entrepreneurs and innovators finding a faster path to create the infrastructure their businesses need long before the government is willing—or able—to step in. In America it was individual entrepreneurs and private companies who built most of the early roads, rails, and canals. At the time, the government could not afford it. Over time, the government became more involved not only in developing and managing infrastructures, but also in setting standards. In 1863, the federal government passed the *Pacific Railway Act*, which mandated every new federal railroad to be built using “standard gauge.”

Different countries should have different infrastructure strategies depending on the need of their citizens, industries, and the markets they hope to create. In poor countries we see companies in the manufacturing sector fund their own education programs because it's essential for their businesses. Just as initial innovations are often of poor quality, those that have identified a promising market opportunity typically get better. The same is true for infrastructure. It may start off just good enough, but it'll improve as long as there's a good reason for it to get better. When governments step in to play a supporting

role, infrastructure can improve rapidly—helping it serve a much wider population.

In many lower-income countries, if companies cannot rely on their suppliers, they are better off vertically integrating to reduce cost. It is often necessary in the market-creating phase of a company. A necessary infrastructure investment that started as a cost center for companies may become a profit center as they “sell” the infrastructure to other companies that need it. When you create a new market, the profits from the market help pay for the infrastructures pulled into the economy. Ultimately, we must do the hard work of first creating the *value* that we store or distribute on a particular infrastructure. Economies round the world have more in common than we might think. We’re just at different stages of development.

Narayana Health (NH) is a chain of multi-specialty hospitals in India with more than 7000 hospital beds, 7 world-class heart centers, and 19 primary health-care facilities. Dr. Devi Prasad Shetty, once personal physician to Mother Teresa, founded and built NH in India, one of the poorest countries in the world, plagued with corruption and mismanagement. His dream of “curing the world’s poor for less than a dollar a day” is reminiscent of Henry Ford’s declaration that he “will build a car for the great multitudes so low in price that no man making a good salary will be unable to own one.”

Today, NH performs open-heart surgeries for \$1000-2000 (compared to \$70,000-150,000 in the US and the UK), while achieving similar mortality and infections rates. NH now offers 30 specialties, including oncology, neurology, orthopedics, and gastrointestinal services, to tens of thousands of Indians annually. NH is now worth about \$1 billion, directly employs 14,000 people, and has trained thousands of health-care workers who work at other hospitals in India and abroad.

Over time, an organization’s capabilities shift from its resources toward its processes, with the business model determining what it must prioritize. As people work together successfully to address recurrent tasks, processes become refined and defined, and priorities coalesce. When creating a market, organizations must incur “market development” costs that many may not see as “core” to their business model, but are essential for them to scale and thrive. NH, for instance, developed an insurance product. For as little as 11 cents a month a low-income household could get health insurance that would cover up to \$22,000 in health-care expenses. NH provided mobile cardiac-diagnostic labs that traveled to poor communities. Although he started with cardiac care, Shetty moved toward other specialties with the same rigor for cost savings, high quality, and intense efficiency—including bone marrow transplants, brain surgery, and spinal surgery. It sparked a major medical tourism boom in India. In 2016 alone, NH treated 15,000 inter-

national patients from 78 countries. Consider the economic activity those patients generated in India from their flights to the country to the food they ate.

Governments in under-resourced countries want to do the right things, but significant constraints prevent them from making good, long-term decisions. Development organizations that support market-creating innovators can catalyze development. These solutions often start out small, but have enormous potential to scale. If we can solve these problems in health care—one of the most complex sectors—imagine what we can do for food, transportation, finance, housing, and a host of other industries.

**Innovation is the process by which society fixes itself.** To recap: 1) Every nation has the potential for extraordinary growth within it. “Nonconsumption” is a signal that opportunity lies within. 2) Most products on the market today can create new growth markets when we make them more affordable. 3) Market-creating innovation often pulls in new infrastructures and regulations, creating new local jobs. 4) Focus on pull, not push. Once a new market is created that is profitable to the stakeholders in the economy, they are often incentivized to help maintain the resources the market has *pulled in*—such as infrastructure, education and policies. 5) With nonconsumption, scaling becomes inexpensive. But **the first step is recognizing an area of nonconsumption.**

Reframe the problem, which leads to asking different questions. The Wright brothers wanted to understand balance first. Their experience with bicycles taught them about its importance. Was balance—in relation to both lift and drag—critical in flight, too? **Asking good questions is one of the most important traits** in bright students and great managers. *Why do we do things this way? Why do we believe what we believe? What if we thought about things differently? What is our mission and why? Why are we in this business? Why do we do development this way?*

**Investing in market-creating innovations provides** one of the best chances for us to create prosperity in many of today’s poor countries. This **the solution to the Prosperity Paradox.**

**[Alleviating poverty is not the same as creating prosperity. Investing in market-creating innovations has proven a reliable path to prosperity for countries around the world. Good theory helps us understand the underlying mechanism driving things and dispenses advice in “if/then” statements. 4 barriers prevent people from consuming a solution that will help them progress: skill, wealth, access, and time. A market-creating innovation isn’t simply a product or a service—it is the entire solution. Institutions are about culture—how people in a region solve problems and make progress. The institutions of a society reflect its values rather than create them. Every time people**

tackle a problem, they aren't just solving the problem itself; they are creating or dismantling culture. Procedures are exclusively instruments of economy. Development often *precedes* successful anticorruption programs, not vice versa. Infrastructures are only worth the value they distribute to citizens. Innovation is *the* process by which society fixes itself. Asking good questions is one of the most important traits of leadership. Investing in market-creating innovations provides the solution to the Prosperity Paradox.