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THE CHANGING FACE OF THE WORLD

INTERVIEWS

BRIAN ROBERTS
CEO, COMCAST

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ARTICLES

THE UAE
CULTURE AND EMIRATES

SWITZERLAND
THE BANKING COMPLEX

ST. CROIX
AN ISLAND IN CHAOS

iBR
International Business Review

FROM THE EDITORS

The International Business Review is a publication run by students of the University of Pennsylvania that features international business editorials and interviews with top campus professors and practitioners. It seeks to give its Penn student writers a platform to display their unique knowledge and opinions of some of the world's most complex and fascinating issues to the betterment of the student body as a whole.

The dominant theme of the Spring 2012 edition of the International Business Review could well be called 'cyclicality.' Today's discussions tend to focus on the simple clichés of global 'downturn' and 'recovery'; yet our analysis shows that these catchphrases hardly encapsulate the complexities of the economic situation today. Parts of the world like Central Asia are seeing explosive industrial growth. Places like Italy are just now working their ways out of the bottom. Some are like Israel, with stormy clouds on the horizon, while others are like the US Virgin Islands, which are at risk of economic free fall. We give these and all our other topics sophisticated and well-researched treatment so that you, our reader, can broaden your international business horizons every time you read our magazine. We hope that this magazine's editorials, three exceptional interviews with Professor Mauro Guillen and the CEOs of Comcast and Jamba Juice, and the dedication of our staff to the highest possible quality will make reading this magazine as enjoyable an experience for you as making it was for us. Cheers!

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ABOUT iBR

about us

The International Business Review is the only undergraduate print publication from the University of Pennsylvania's Wharton School. Going beyond the scope of the American economy, IBR is region-based and covers a diverse array of business trends. IBR features internationally relevant articles written by University of Pennsylvania undergraduates and interviews with international business executives. With every issue, we aim to bring a global vision to the business world.

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about wharton

The Wharton School of the University of Pennsylvania — founded in 1881 as the first collegiate business school — is recognized globally for intellectual leadership and ongoing innovation across every major discipline of business education. The most comprehensive source of business knowledge in the world, Wharton bridges research and practice through its broad engagement with the global business community. The School has 5,000 undergraduate, MBA, executive MBA, and doctoral students; more than 9,000 annual participants in executive education programs; and an alumni network of 88,000 graduates.

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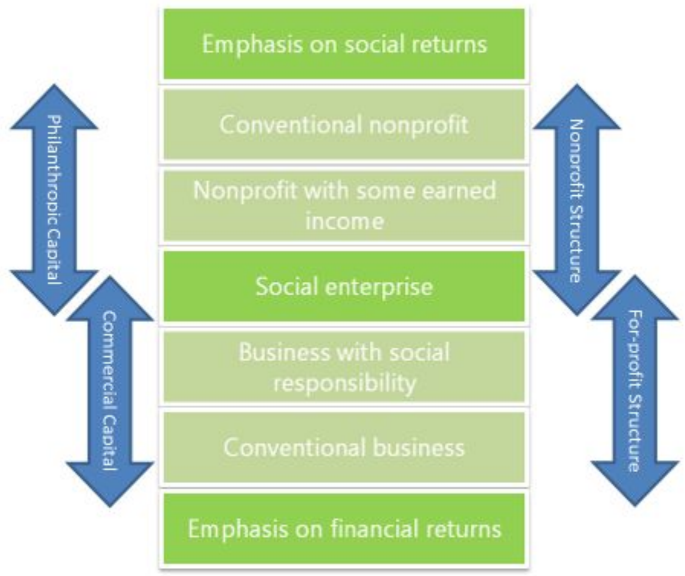
ASIA'S SOCIAL ENTERPRISE SOLUTION

BY **GABRIEL JIMENEZ** (C'15)

In a world riddled with mantras and social movements against capitalism, an emerging group within the private sector aims to unite financial success and social impact. These experts in social and economic development are creating Social Enterprises (SEs) that address the primary objectives of social and environmental issues using business methods. Different from non-governmental organizations, SEs sell socially and environmentally oriented goods and services that create employment, secure returns, and accrue profit.

While these enterprises have been developing for some time, they have recently exhibited exponential global growth and impact. The SE sector accounts for 10% of all European businesses and an impressive 12% of France's GDP. According to Johns Hopkins' Non-Profit Economic Data Project, almost 30% of the 10.5 million U.S. workers employed in the non-profit sector work for SEs. By 2007, Latin America's Inter-American Development Bank had $320 million to invest in various SEs. Asia, however, is behind in this SE revolution, with countries like China showing philanthropic giving at a mere 0.35% of GDP. Fortunately, the region is undergoing some promising initiatives.



One in particular is the Social Stock Exchange in Singapore pioneered by the company Impact Investment Exchange (IIX). As Asian economies expand, regional developing countries are struggling to maintain growth that is both socially equitable and environmentally sustainable. In response, IIX has begun to address the main inhibitor to SE growth in any region: capital acquisition. The founder, "investment banker-media executive-turned-social entrepreneur" Professor Durreen Shahnaz, began her career with Morgan Stanley learning how to access capital markets to enable company growth, and later with the World Bank and Grameen Bank refining her development and microfinance experience. When she went on to create oneNEST, an online global wholesale marketplace for handmade goods, she recognized the lack of investors to help companies with social and environmental missions expand. Her idea to create a stock exchange for SEs that would eliminate their barriers to capital and market opportunity had only begun to develop when the Rockefeller Foundation donated $495,000 to fund what would become IIX.

The social stock exchange idea was born from two related issues IIX sought to improve. First is the aforementioned difficulty in obtaining capital for SEs. Second is the burden that investors, looking for a social and environmental return beyond their initial investment, encounter due to the costs of locating appropriate SEs in need of financing. IIX's method is a two-platform approach to remove these barriers and act as a catalyst for the interaction between SEs and investors.

The first platform, Impact Partners, was launched in March of 2011 and consists of an online network that assembles impact investors, such as social venture capitalists, searching for triple bottom line returns (initial, social, and/or environmental) to fund SEs looking for private capital. The network consists mainly of high net worth individuals, foundations, companies, and funds with regional or Institutional Investor accreditation. The program thus eliminates the cost and effort investors may waste in pursuit of viable enterprises. Using a revolutionary "market readiness framework" that evaluates the financial capabilities and expected impact from the soliciting enterprises, IIX creates

Professor Durreen Shahnaz is the founder and chairperson of the Impact Investment Exchange.

Social Enterprise Profiles that appeal to the social and environmental concerns Impact Partners demonstrate. With overall benefits like deadflow access to high-impact investment opportunities, cost-saving methods of identifying and evaluating enterprises, and a financial information database, IIX has created an extensive medium for Impact Partners.

The second platform, the Impact Exchange, is the stock exchange itself, which is set to launch later this year. Impact Partners will be allowed to purchase and trade shares issued by for-profit SEs and bonds issued by both for-profit and not-for-profit SEs. With the aid of their sister company, Shujog, IIX prepares Asian SEs with "organizational accountability, sound governance, and fiscal accountability" to ensure that Impact Partners achieve financial and impactful returns. IIX will establish listing criteria, including traditional corporate governance, accounting standards, operating track records, and financial performance indices to promote the highest-performing social purpose business in a system sustaining transparency for investors. SEs will maintain regulated financial reports and be scrutinized by third party auditors. Lastly, the Impact Exchange will offer a market data feeder on SEs and key players in the SE field to news services, interested parties, and investors. Currently, the exchange calculates the investment opportunities to equal $68 million. Promisingly, according to Social Edge, a program of the Skoll Foundation, "impact investment markets in Asia suggest that total investment capital of between $90 to $250 billion, or 1-3% of the total assets currently being invested in the Asia Pacific region, could be deployed across key sectors to capture annual revenues of between $100 and $350 billion by 2020." Needless to say, there is probable expansion in IIX's future.

IIX's mission is a tremendous undertaking, but follows the heels of other global social stock exchanges. In 2003, Brazilian mogul Celso Grecco partnered with Sao Paulo's BOVESPA stock exchange to create the Socio-Environmental Investment Exchange (BVSA). In three years, investors contributed $6 million to almost one hundred enterprises. For over five years the South African Social Investment Exchange (SASIX) has innovated online investing platforms for social and environmental projects. The Global Impact Investment Network (GIIN), consisting of members such as the Acumen Fund, Deutsche Bank, and J.P. Morgan, is developing an Impact Report and Investment Standards (IRIS) project that will effectively evaluate SEs. Nevertheless, even amidst a community of successfully functioning social stock exchanges, critics still exist.

Critics of the system note two main faults with social stock exchanges. First is the lack of transparency and credibility in evaluating social and environmental missions. This can cause devaluation and short sales. SEs are difficult to rank and evaluate quantitatively; therefore many analysts argue that investors will speculate to deliberately

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undervalue the companies and organizations in the exchange. Another concern questions how much control an investor has on the SE's mission. Someone with 75% of the shares can conceivably alter the overall objective of the business. IIX hopes to address these problems through prudent long term relationships with investors, Shujog's beforehand work with SEs, and an evaluation framework comparable to GIIN's IRIS.

The goal of this system is clear: by providing capital to SEs, IIX hopes to catalyze progress in social and environmental causes in Asia. The success of its mission, however, holds significant global implications. According to a 2010 report by J.P. Morgan and The Rockefeller Foundation, global impact investing could offer between $400 billion and $1 trillion worth of opportunities in housing, water, health, education and financial services through 2020. But to achieve such success, other organizations in Asia and abroad must pursue the groundbreaking steps of IIX, thereby achieving the global propagation of its vision and ideals. iBR

SOLAR IS HERE TO STAY

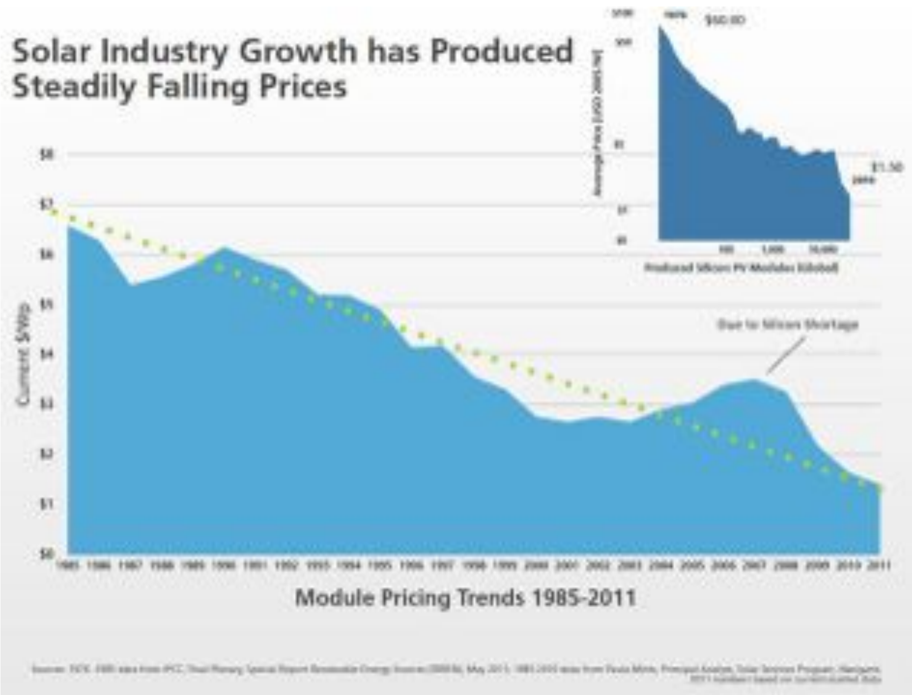
BY ANUBHAV MAHESHWARI (W&E'15)

Big boom and bust. Is this where the solar industry is heading? According to recent financial headlines, this seems to be the case, the most worrying being Solyndra's bankruptcy last year. A much-hyped California-based photovoltaic modules manufacturer, and the poster child of the Obama administration's $80 billion 'Green Jobs' initiative, Solyndra went from American Solar's great contender to insolvency. If Solyndra is an indicator for the global solar industry, then the industry is in trouble.

In 2009, the Obama administration authorized a $535 million loan guarantee for Solyndra. By September 2011, however, the company had laid off thousands of workers and filed for bankruptcy. Mismanagement and the immaturity of the American solar market played a role in this debacle. Solyndra mistakenly mass produced an untested cylindrical variant of thin-film solar cell technology it had not yet mastered while spending low interest government-guaranteed loans liberally. Overall, the American solar industry is marginal compared to its oil and gas counterparts. As mass production of photovoltaic cells shifts to China's rapidly decreasing manufacturing centers, American solar module manufacturers will not compete.

The sub-par performance of the solar industry seems to be a global trend, with European solar companies suffering from weak results in 2011 due to reduced government spending on renewable energy in a weak economic environment. With Germany, the U.S., and China cumulatively producing 10 of the world's 24 gigawatts of solar power, there is fear of a decline in solar installations due to the end of subsidies in these countries. Another significant threat to the industry is a supply surplus; unused capacity in the short run is causing firms to incur extensive losses. But solar is not without its bright spots. Many residences and commercial properties are installing solar panels on roofs to promote sustainability in their communities, rely less on grid power, and even sell excess power back to utility companies. The falling cost of solar panels, now at 88 cents/watt, will lead to an acceleration of this trend. And while Solyndra is the resident horror story, firms like SunEdison, which plans to invest $2 billion over the next 5 years in local joint ventures, remain committed to the industry. Should European enthusiasm wane, Asian investors are there to pick up where they left off. For example, Swiss company Oerlikon divested its solar business to Tokyo Electric for $235 million in March 2012. Despite the hiccups, global investment in solar energy rose to $136 billion in 2011, a 36% increase over the prior year.

Outside of high production activity in China and the more developed European and American markets, the solar industry is expanding across other regions. India has potential to integrate solar power in its power generation mix to meet increasing energy demand. The country accounted for 4% of the world's clean tech investment in 2011 and solar capacity is set to rise by more than 20% in the next few years. Several companies have earmarked significant development projects, including Indian firm Moser Baer which currently operates a thirty megawatt installation facility and is developing a $1 billion 150 megawatt production facility. While the levels of solar power investment, installation, and manufacturing lag behind those in North America, Western Europe, and Southeast Asia, the industry will boom with the support of both the private and public sectors. The Indian government has set the goal of generating twenty gigawatts of solar-based power by 2020, nearly equal to current worldwide solar production.



Latin American countries have also embarked on missions to add solar and renewables to their energy mix. While solar projects are being developed in Chile's Atacama desert and Argentina, Mexico plans to derive a quarter of its electricity from renewable sources by

the end of 2012. Both private and public stimulus is facilitating further growth of the industry, as investors, manufacturers, and consumers are realizing that solar power will reduce dependency on polluting and greenhouse gas-emitting energy sources. The solar industry is still young, but will mature with sufficient financial and intellectual capital.

Additionally, several promising solar technologies and ongoing innovations are reducing manufacturing and installation costs and reinforcing the viability of the industry, as firms with access to private and public funding race to gain market share. The leading photovoltaic technologies are thin film, crystalline silicon, and concentrated solar power (CSP). As the name suggests, CSP involves using reflective surfaces to concentrate a large area of sunlight onto a smaller area. Electricity is then generated when the sunlight is converted to heat, which is used in a heat engine such as a steam turbine connected to a power generator. CSP has promising applications in large open areas and regions with high insolation (solar radiation). Spain is a leading CSP producer and utilization growth is predicted in Africa, Mexico, and southwest United States because of high solar radiation levels. The EU is even considering a $400 billion CSP development project in the Sahara desert, which could provide 15% of Europe's electricity by 2050. CSP is still a nascent technology, but as it is exported worldwide, costs will reduce and increase its use potential.

Another prominent technology, crystalline silicon solar panels made of either single silicon crystals or multiple crystals arranged in wafers, is used for residential purposes. This technology, one of the first to be developed, is popular due to cheaper production costs. Thin film solar cells on the other hand, are composed of thin layers of photovoltaic materials placed on substrates (base materials). While thin film cells are more expensive and less efficient than crystalline silicon ones, they are easier to install and are therefore often used on residential and commercial rooftops. Marketing research companies project thin film solar cells to represent over 30% of the solar market by 2013 due to better mass manufacturing abilities. The various available solar technologies thereby complement each other well; concentrated solar power will increasingly be used for large scale power generation purposes, while crystalline and thin-film cells can be specialized smaller modules for residential and commercial properties.

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In the short run, the solar industry will be volatile. Especially in the middling European and American markets, firms will face increasing competition from cheaper manufacturers in China and slow demand growth. However, demand for energy is only bound to rise with growing populations and economies, and with this rise will come a need for sustainable and renewable energy sources. The solar industry is best poised to shave off market share from traditional oil and gas, and will continue to play a crucial role in clean energy generation. Solyndra might have failed, but the industry is here to stay. iBR

CORN:

THE NEW KING OF AMERICAN AGRICULTURE

BY CHARLES WETHERBEE (W'15)

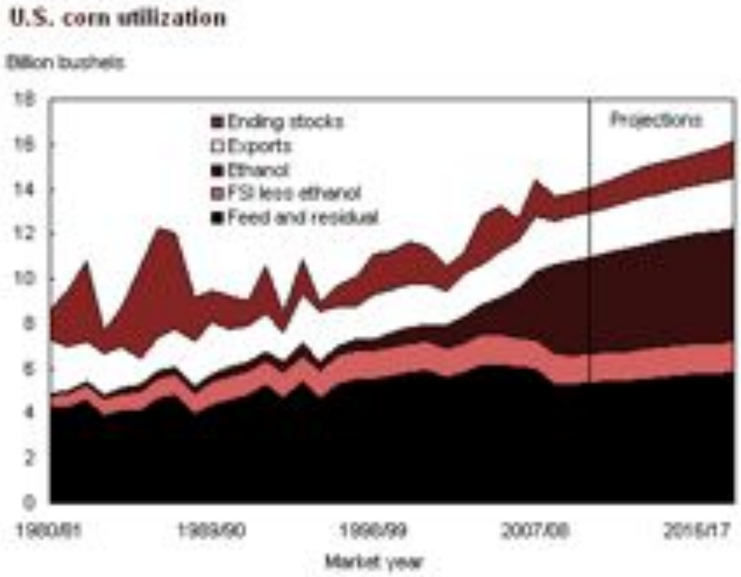
Move aside cotton—corn is the new king of American agriculture. In the last five years, American growth, insatiable developing nations, and technological surges have spurred dramatic increases in demand for the good, pushing prices higher and higher—and the trend looks set to continue, as demand outpaces supply both in the US and abroad.

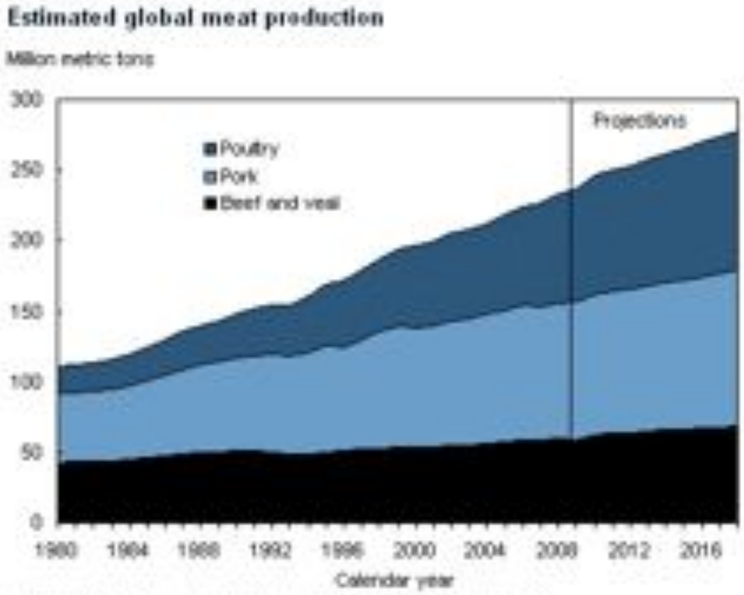
While corn-on-the-cob is a prime summer pastime, the primary role of corn in food is in commercially processed foods—starches, oils, and sweeteners. While American demand for corn sweeteners, such as high fructose corn syrup, is on the decline, there is enormous potential for overseas growth. As industrialization and consumerism take root in developing regions like Southeast Asia, Africa, and Latin America, demand for industrially produced food products will increase substantially as emerging middle class demands begin to supplant and replace limited existing agricultural food supplies and exports become a greater factor in US corn production.

However, most of America's corn is used as livestock feed for the poultry, beef, pork, and dairy industries. In fact, feed accounts for nearly 40% of American corn consumption—and nearly every industry driving feed demand is on the rise. Pork production is predicted to expand as hog prices remain high or edge upwards, while beef production looks set to increase moderately following a period of correction lasting through 2012. The domestic poultry industry has bounced back more quickly from increased feed prices and lower demand of recent years with anticipated annual growth of 2% through the next several years. Turkey production is also set to increase, with 1.8% annual growth during its peak in 2012. Milk and egg production are projected to continue to increase at a moderate rate, somewhat impacted by declining herd numbers. All these moves are compounded by the increasing shift toward corn feed—even given rising prices, factors such as the availability of ethanol co-products as feed are making corn an ever-more attractive option for farmers.

Technological trends have also played a major role in shaping the corn market. Ethanol, one of the most visible and controversial trends in the corn industry, now commands over a third of US corn use. The largest factor in the rising price of corn, US demand from ethanol producers over the past decade has driven prices up significantly, causing wide criticism. This demand is partially market-based, but partly (and artificially) driven by government incentives and mandates. The Energy Policy Act of 2005 stipulates that 7.5 billion gallons of ethanol be added to the gasoline supply in 2012 after steadily ramping up from the 4 billion gallons added in 2006. A 54 cent-per-gallon tax credit has artificially stimulated demand as well, and ethanol producers are currently above the target for this year. The US government's financial difficulties will likely restrain further explosive growth in the domestic ethanol sector, with recent sentiment favoring a repeal of the existing export-import tax credits that aid ethanol producers. Meanwhile, other technologies are also beginning to push on corn prices, as manufacturers of plastics switch to more eco-friendly materials based on plant oils rather than petroleum derivatives. The increasing use of biodegradable plastics also bodes well for future industrial demand for corn.

The remaining American corn is sent abroad; exports account for 15% of US corn production, and are set to rise. Japan is the largest importer of American corn, but Japanese growth prospects are slim, with central bank estimates of GDP growth below .5% throughout the next year and beyond. Mexico is the second-largest importer of US corn and should continue to increase its imports due to an expanding populace, increasing development, and growing demand for ethanol. US feed grain exports are projected to increase 16% by 2019 to 2.3 billion bushels annually, driven by increases in global demand for meat and processed food, coinciding with the rise of living standards and the middle class in developing nations. Despite this increase, however, the US share of the global corn trade is expected to fall below 60% over the same period due to a global rise in production. Demand isn't the only factor impacting the price of corn, however—supply in the global corn export market will be shifting during the coming years. China, the world's second-leading exporter until as recently as 2003, will become a marginal net importer by the end of the projection period to the tune of approximately 160 million bushels. Northern China, today producing a net corn surplus, will continue to ship corn to South Korea, a heavy importer and large consumer of foreign corn; southern China, however, will continue to face a corn shortfall, providing an opportunity for foreign exporters to capitalize on this growing market. Argentina, meanwhile, is currently the world's second-largest corn exporter due in part to its small domestic market, through higher export tariffs on grain will lead to some land reallocation in favor of soybeans, potentially dampening some of its production capacity. Much of the South American corn designated for export will be funneled into Chile's growing pork industry; Brazil will remain a strong net exporter, though its ability to maintain market share will likely be hampered by budget constraints—its adoption of genetically modified corn varieties has negatively impacted its exports to Europe due to the EU's recent





Source: *USDA Agricultural Projections to 2018*, February 2009. USDA, Economic Research Service.

ban on GM food. Across the globe, Ukraine will likely take its place as the world's third-largest corn exporter in coming years. Even with these global shifts, however, it is likely corn prices will rise—or at the least remain elevated—due to the dominating global trends in demand. Corn looks to have tremendous growth prospects over the coming decades. Industrial demand for corn plastics and derivatives will continue to expand as biodegradable and specialized materials become more common. Ethanol as a renewable alternative to Middle Eastern oil will have some sway over the global market, though the true extent of ethanol deployment past government mandates is uncertain if funding disappears. Industrialization and the global population boom will be the driving forces behind corn demand, with its new middle class and its increased appetite for meat pushing feed demand to record levels. As it stands, demand continues to outrun supply—the price of a changing world. iBR

INTERVIEWED BY DAVID VINNIKOV (W'13)

BRIAN ROBERTS' NEW PERSPECTIVE ON THE CHANGING FACE OF MEDIA

Brian Roberts currently serves as the Chairman and CEO of Comcast Corporation, the nation's largest video and internet services provider. Under his leadership, Comcast has become the majority owner of NBCUniversal and Comcast-Spectacor. Roberts sat down with IBR to discuss Comcast's emergence as a Fortune 100 firm, his thoughts on international expansion, the challenges of technological innovation in a modern world and the characteristics most integral to individual success in the world of finance.

Brian Roberts, CEO

Brian L. Roberts is Chairman and CEO of Comcast Corporation, one of the world's leading media, entertainment and communication companies, and Chairman of the Board of Directors of NBCUniversal. Under his leadership, Comcast has grown into a Fortune 100 company and is the nation's largest video provider, largest Internet services provider, and the fourth largest phone company. Roberts has also overseen the Company's acquisitions and majority ownership and managing of NBCUniversal, which owns and operates entertainment and news cable networks, the NBC and Telemundo broadcast networks, a major film studio, and numerous local television stations. Roberts, 52, received his B.S. from the Wharton School of the University of Pennsylvania. He and his wife, Aileen, live in Philadelphia with their three children. Roberts is a member of the Board of Directors of the National Cable and Telecommunications Association (NCTA) where he served as Chairman for two consecutive terms. Roberts has won numerous business and industry honors for his leadership. In 2011, he received the Ambassador for Humanity Award from the USC Shoah Foundation Institute for his visionary leadership and philanthropic work in education and technology. In 2009, Institutional Investor magazine named him one of America's top CEOs for the sixth year in a row, and named Comcast one of America's most shareholder-friendly companies for the fourth year in a row. In 2008, he was recognized by Big Brothers Big Sisters for his outstanding leadership in the community and for serving as a role model. In May 2007, he was presented with the cable industry's highest honor, the National Cable and Telecommunications' Vanguard Award for Distinguished Leadership. In October 2006, he was inducted into the Cable Television Hall of Fame. Roberts co-chaired the 2003 Resource Development Campaign for the United Way of Southeastern Pennsylvania. An All-American in squash, he earned a gold medal with the U.S. squash team in 2005 and silver medals at the 1981, 1985, 1997 and 2009 Maccabiah Games in Israel.

Comcast was founded by your father, Ralph Roberts, in 1963 in Tupelo, Mississippi. Tell us about how you came to join the business.

My father was an entrepreneur – he owned a men's belt and suspenders company. He sold it for about $100,000, which was a lot of money, and was looking for an investment. One day in Philadelphia, Pete Musser approached him with an offer to buy a Community Antenna Television system in Tupelo, Mississippi. My father asked, "Where is Tupelo, Mississippi? And what's Community Antenna Television?" Tupelo was the birthplace of Elvis Presley and, as it turns out, also the birthplace of Comcast. Tupelo is a valley town and it didn't get television reception from the closest city, Memphis. The concept of Community Antenna Television was to put up a big antenna tower on a hill and run a wire around the town, which people could hook into and get television reception for about $2 a month. The idea of Community Antenna Television took off and the company continued to grow from its beginnings in Tupelo. In 1969, we rebranded as Comcast. I asked my father where the name came from and he said he took the two words "communications" and "broadcast" and put them together as Comcast. As we think about where we've ended up almost 50 years later, his foresight is amazing. Like everyone, I was often asked as a young kid, "What do you want to do with your life?" Some kids said they wanted to be doctors or lawyers, but I always knew I wanted to work for my father. Starting at an early age, he would take me to business meetings and gave me a chance to work for him. He was nice enough to include me and, more importantly, when I had something to say at a young age, people would listen instead of telling me to sit in a corner without saying anything. So as I think about the time from my youth to these last few years, I start by saying that everything that is great about America can be captured in the Comcast story. In 1981, when I graduated from Wharton, Comcast had $20 million in revenue. In 2010, pro forma with NBCUniversal, we'll have over $50 billion in revenue. It's been a wild, exciting and uneven ride that starts with working with the great entrepreneurs who helped build this industry. People like my father and Ted Turner, who took the business of Community Antenna Television one step further and said, "Now, we can do original programming." And Ted first pioneered the Superstation and later CNN and Turner Broadcasting. Then HBO came along. We then went into the broadband business and were lucky enough to get Bill Gates and Microsoft to buy a nonbinding interest in Comcast. When the Internet and broadband got started, Bill Gates was the first to believe that we could do more than just television. We bought AT&T Broadband when they tripped up a bit, and were able to put our two companies together, triple in size and catapult Comcast onto a national platform by becoming the largest cable company in the nation. We always thought that technology and distribution were going to be great businesses, but that they would evolve and get more competitive. And when that happened, we knew the content companies would do well. So, we began to work toward having one company that was in both content and distribution. After our unsuccessful attempt to acquire Disney, NBCUniversal became an opportunity.

What are your thoughts on going international?

We would eventually like to have this company grow more internationally. CNBC, Universal Pictures and a lot of the news and entertainment content are natural for us to grow larger internationally. Broadband and traditional cable are less of a good fit.

You've talked about AT&T Broadband and about Microsoft's investment in Comcast. Tremendous technological change, including the advent of mass Internet availability, has coincided with your being at the forefront of Comcast, starting as President in 1990. How have you managed these technological challenges? How have you gone from having a few channels on cable to being an all-inclusive "Communications Broadcaster"?

First off, the technology landscape has always been a personal curiosity of mine. I feel that I'm the youngest of the old generation, not the oldest of the young generation. By that I mean, when I graduated from Wharton, there were no personal computers, which is shocking. When I was 16 years old, I got the Commodore 64 and loved programming. I had a summer job at a computer lab and took computer science classes at Penn. When I graduated and was working in the industry, we formed something called Cable Television Laboratory, and I've chaired that off and on for many years. I studied under Dr. John Malone, who is one of the greatest entrepreneurs the industry has ever known. Next, we've been very fortunate that we made the decision to continue to reinvest in our cable plant. When we had ten channels, we adjusted to be able to offer 50 channels. When we had 50, we made investments so we could launch 100, and when we had 100, we decided to take our network all digital and it's now IP and offers two-way interactivity. And last, luck is a big factor. When Ethernet got created, people didn't put fiber-optics to their desk computer. They put fiber-optics in and out of the big transport pipe and used coaxial cable to distribute locally. As computer networking took off, it turned out to be the identical architecture that we had in every neighborhood in America. You could upgrade to fiber-optics in your neighborhood and use the same coaxial cable to the house we had already invested billions of dollars in. This architecture, which we call hybrid fiber coax, has proved to be the model for the rest of the world.

As you say, the investment into fiber-optics has let you offer "Triple Play" packages [combined phone, video and Internet services], along with On Demand and other technology that puts you ahead of your competitors. So what comes next? What is the next technological frontier?

The next step is giving consumers whatever they want, whenever they want it, on whatever device they want it, instantaneously and without disruption in service. As the world continues to evolve with things like Wi-Fi, tablets, voice recognition, touch screen and Xbox Kinect, we're seeing the last foot go wireless. The rest of the experience is having a super fast pipe; we've gone from pictures, to search, to video over the Internet. We've gone from 64 kilobits a second, to a megabit, to a world where it will be over a billion bits a second. What is next for the Internet? What applications require tremendous bandwidth? The strategy for Comcast, and what makes it so exciting for me, is that we want to provide the best and fastest Internet capability so that entrepreneurs and Comcast can use our pipe to create the applications that none of us anticipate yet – the next YouTubes and Facebooks. We see home energy management, health care in the home, broadband security, perhaps 3D without glasses taking off someday. I don't want to make these guesses – I want to enable them.

> "SO AS I THINK ABOUT THE TIME FROM MY YOUTH TO THESE LAST FEW YEARS... EVERYTHING THAT IS GREAT ABOUT AMERICA CAN BE CAPTURED IN THE COMCAST STORY... IT'S BEEN A WILD, EXCITING AND UNEVEN RIDE THAT STARTS WITH WORKING WITH THE GREAT ENTREPRENEURS WHO HELPED BUILD THIS INDUSTRY."

So does that mean putting more money into Cable Labs, or does that mean doing the Google model where you have third-party developers come in and do everything on their own?

At the Consumer Electronics Show this year, we showed we are going to have everything – from televisions you can directly connect to the Internet without a box, to tablet devices running Apple or Android operating systems acting as your remote control, being the search engine for your On Demand library of 60,000 movies and shows or even being the TV themselves.

We see that convergence is very much here and real and we hope to be at the center of it – but not so exclusively that we don't interconnect with others. We're doing a much better job as a company of getting out of the old mindset of making and delivering everything ourselves. Now we partner, enable, and participate with others, but we're not the sole designers of the products you consume. I should also point out that while we partner with others, we also created Comcast Innovation Labs. So, when you see new products like our Xfinity TV App or Xfinitytv.com that offers 150,000 choices online, these are all developed internally.

As Comcast's leader, you were the one who had to make the decision on buying NBCUniversal. How do you gather the confidence to pull the trigger when so many people are relying on you?

First of all, I think you grow into your level of confidence over time. Ten or 20 years ago, I might have not been able to move as quickly as I think we did on the NBCUniversal transaction. Having experience, plus the "golden gut" that someone like my father has, when it came to being the last person to make a major decision, helps in really tough situations. We have smart and talented people working with us. I like to have about 10 people in the inner circle working on a project like this. And somewhere in the middle of the journey, we have everyone look up from crunching numbers and from examining the opportunities, to do a secret ballot vote to see what everyone's sentiment is. My father and I follow this tradition because we know that it might be unpopular to say no when everyone has a full head of steam or say yes when some people hate the idea. We've had some of both over the years, so it's important to let the voices be heard in an unaccountable and unvarnished way. Open management requires a real culture of trust between your executives and I try to instill that. Ultimately, it comes down to your conviction, strategic research and financial discipline. We have a terrific CFO, Mike Angelakis, join us a few years ago from Providence Equity, which had one of the highest returns on capital of any media private equity fund. There were attractive rates of return under different models, so with experience and confidence, hopefully not hubris and blind spots, we felt that it was the right thing to do. We took it very seriously and tried to be as rigorous and thoughtful as possible.

What is it about NBCUniversal that will drive those returns?

First off, the business simply isn't performing as well as we think it can. The broadcast network is in last place ratings-wise and Universal Studio's profitability has slipped. General Electric openly said they had other investment priorities than NBCUniversal. Can we do better in television and entertainment than they did in the last few years? There's a turnaround possibility here, pure and simple.

Second, there is a rapidly changing technological opportunity to accelerate innovation in cable and wireless. In our hearts, we really believe we can create a unique company that is more than just a cable company or just a broadcaster. The power of both together, along with premier channels like USA, E! Entertainment, Golf Channel and CNBC, attracts the best people and makes a magnificent company in terms of opportunity to touch audiences and be relevant in tomorrow's world. Financial diversification has its role, because where distribution has more competition, content is more valuable. At the heart of it, we like the cable programming business. Cable channels have been at the top of the entertainment food chain for a decade and we expect that to continue. Combining their networks with ours gives us lots of growth opportunities. We are planning for the future; years and decades from now, our intent is to deliver strategies that build value for shareholders over time.

Comcast has over 100,000 employees nationwide, and more are coming in with NBCUniversal. At the end of the day, it all comes back to you. What type of challenge does that present to your managerial and leadership skills?

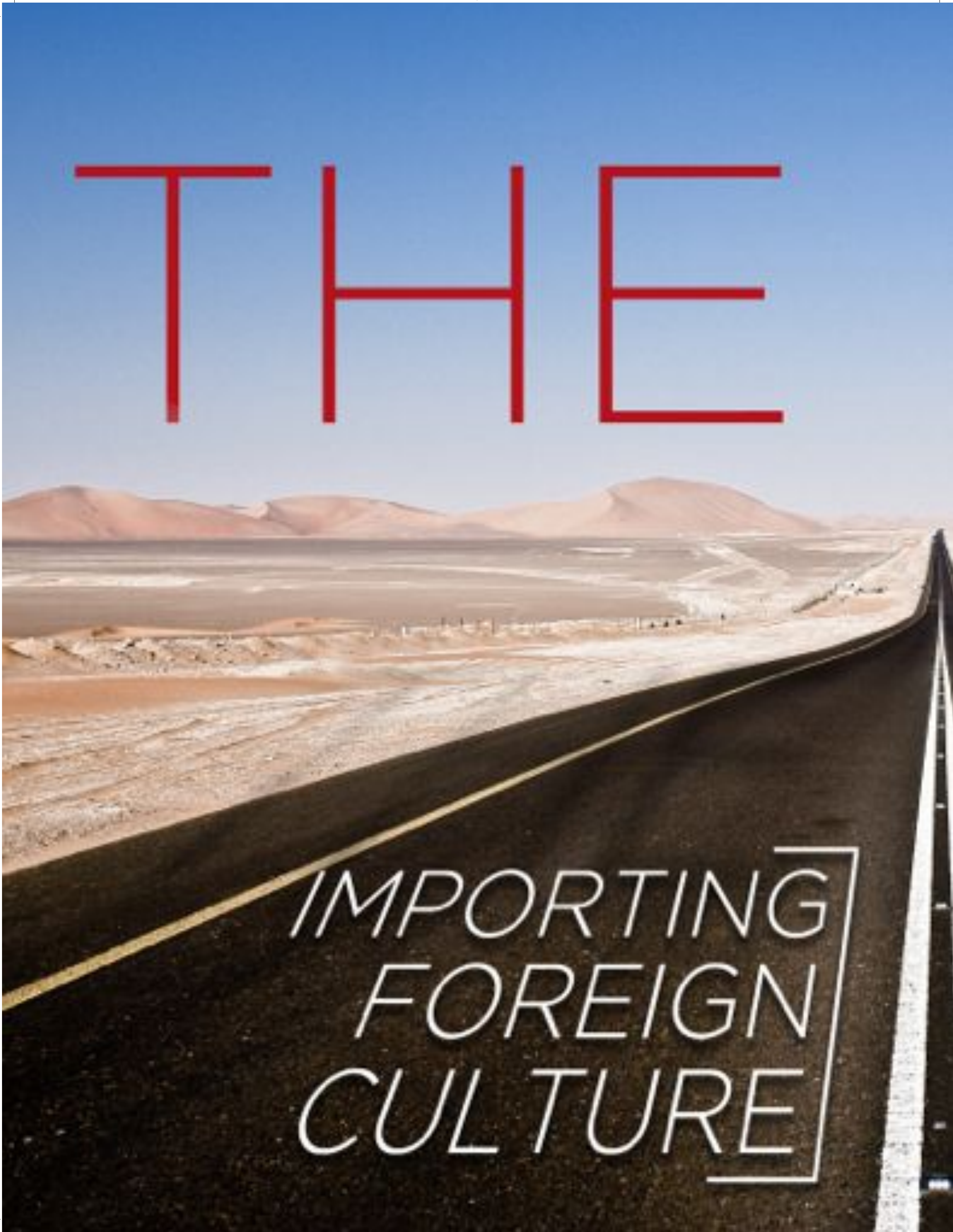
Well, it's a tremendous responsibility on a human level because if you make big mistakes, there are going to be real implications – not just for shareholders, but for employees as well. We view ourselves as a family business, a very large family, but ultimately one that people see as more than just a big corporation, but rather as a world class management with family values. Looking at General Electric, which is in many businesses all over the world, they have their "GE Management System." We have our own "Comcast Way." My style is to rely on really strong leaders running each business unit. Steve Burke runs NBCUniversal, Neil Smit runs Comcast Cable, Mike Angelakis is our CFO and David Cohen, Chairman of the Board of Trustees at Penn, is our Executive Vice President. I think it's an incredible executive team and each of them has assembled their own teams of managers and strategists that execute every day on our goals. Ultimately, my job becomes one of culture and executive recruitment, including changing out members of the team if they're not right. It's a bad model if every decision goes through me. Certainly there are major decisions that I am more deeply involved in – like should we or shouldn't we acquire NBCUniversal – but having everything go through me means we'll have less talented people who want to work for us simply because people want to make their own decisions and lead their teams. We're competing every day against the young kid in the garage as well as big multinational companies. I'm probably more afraid of the kid in the garage, because the big corporation is going to move too slowly. We need to speed up constantly and the only way to do that is to give strong leaders the chance to make decisions as if they run their own business.

Wharton has many students who want to do either investment banking or consulting. Comcast has been a big deal maker and consumer of these types of services. What types of people do you look for when you're getting these advisors?

First, let me say that if I hadn't done what I'm doing now, I probably would have gone into investment banking or consulting. I think these are two of the great areas Wharton trains people to pursue and they are expert at it. What makes someone successful in these careers is the same thing that has helped me in my career; substance wins the day in the world we live in and the ability to do your own thing, innovate and connect to others, whether they're geographically in the same location or not, is totally different than it was 25 years ago. It used to be a group of people were all in the same place, working together, and so the person with the most winning personality tended to be the strongest voice in the room. That's completely transformed to the smartest person with the best idea winning out more often than not. So if you go into investment banking or consulting, be the best in terms of the advice you give your clients. The best investment bankers I know used to be very proud that the best advice they ever gave was telling someone not to do something. I really believe the advice we've been given both from consultants and from bankers has a wide range of quality. It's a hard job; it's amazing how many industries in which they have to become an expert. But a level of honesty and trust needs to be developed because these advisors are hired to help you make a really important decision. What it comes down to is whether they're just trying to sell you a product or whether they have really tried to put themselves in your shoes. There is a big difference between the two and you can tell it right away. So my advice for future investment bankers and consultants is to tell the truth, because being known for giving the client great advice will pay dividends for you and the firm you're working for in the long run. iBR

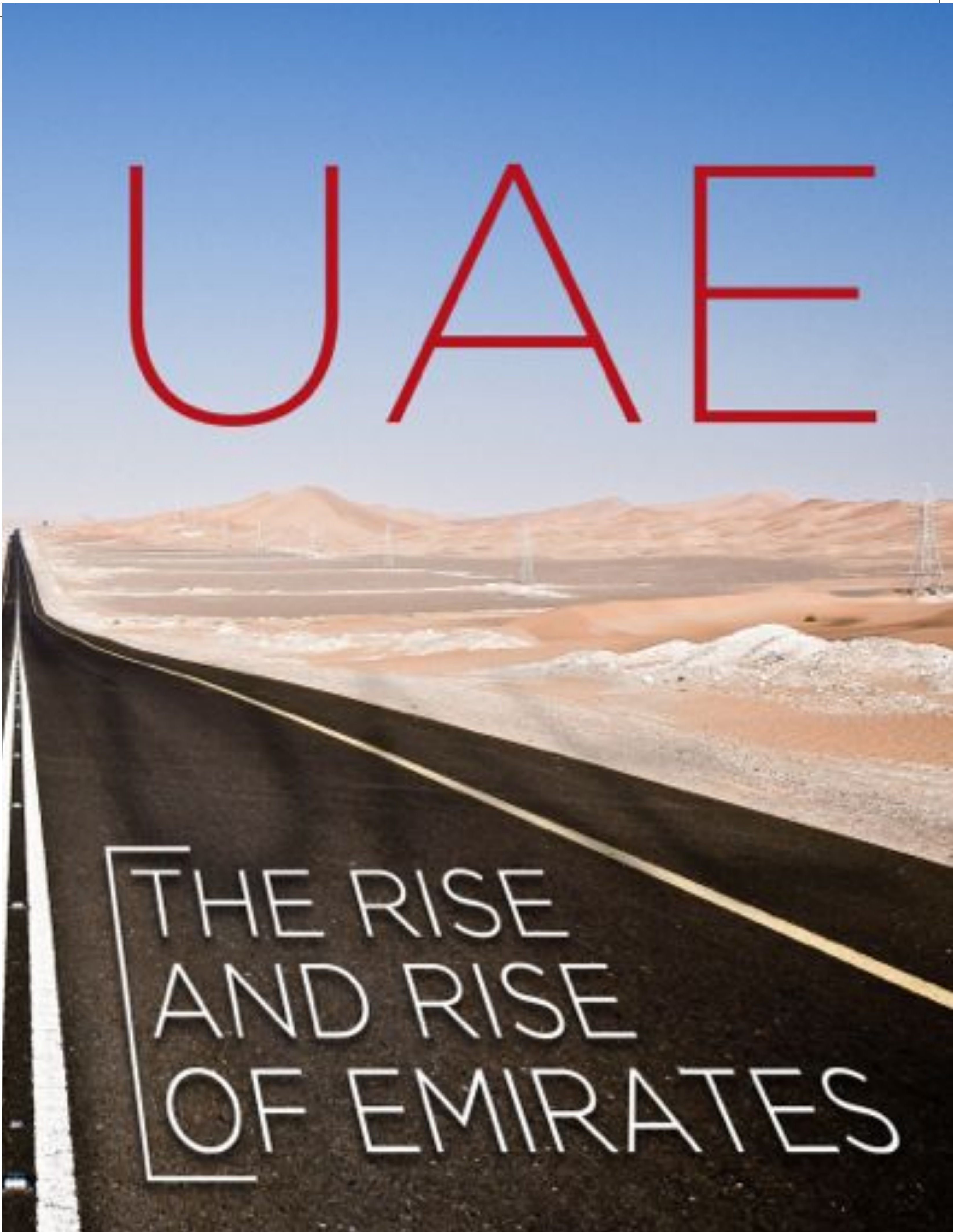
> "IF I HADN'T DONE WHAT I'M DOING NOW, I PROBABLY WOULD HAVE GONE INTO INVESTMENT BANKING OR CONSULTING. I THINK THESE ARE TWO OF THE GREAT AREAS WHARTON TRAINS PEOPLE TO PURSUE…"

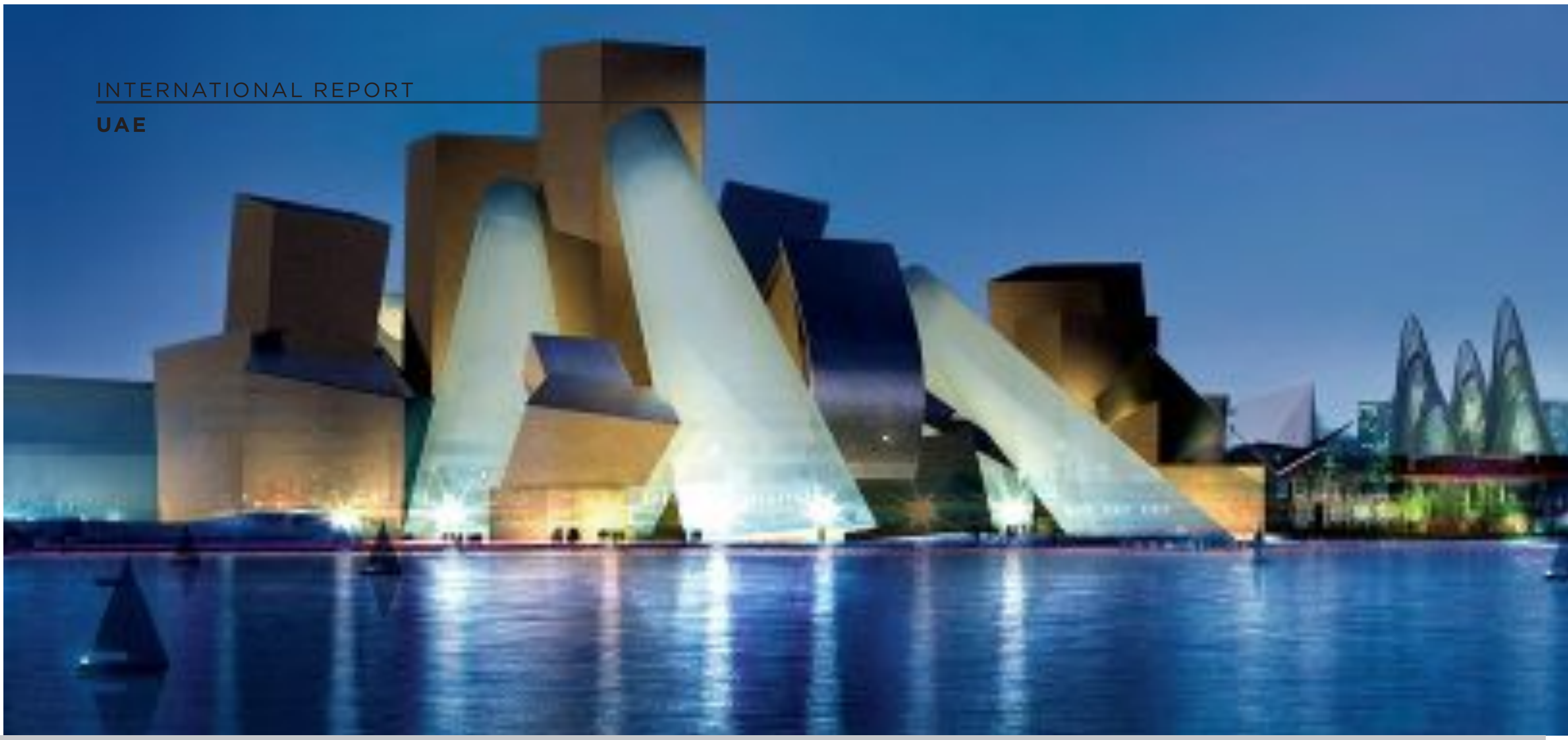
THE IMPORTING FOREIGN CULTURE



UAE

THE RISE AND RISE OF EMIRATES





IMPORTING FOREIGN CULTURE: A SHORTCUT TO DEVELOPMENT?

BY AKSHAY SUBRAMANIAN (W'13)

Any discussion involving relations between the West and the Middle East inadvertently conjures up images of conflict and political strife. The conflicted ideals and historically troubled relations between the two regions have sealed the belief that a divergence of opinion may forever be the norm. A few pockets of the Middle East, however, have taken significant steps towards challenging the status-quo. Qatar and the United Arab Emirates (UAE), backed by many billions of dollars of oil revenue, are striving to make their presence felt on the global stage by achieving a seamless integration of key elements of Western and Middle Eastern culture through investment in sport, education and art.

Nowhere is this effort more conspicuous than in soccer. Qatar and the UAE have provided a new dimension to the region's passion for soccer through the purchase and sponsorship of prestigious European soccer clubs. In 2008, Sheikh Mansour bin Zayed al Nahyan, member of the ruling family of Abu Dhabi, completed a £210 million takeover of the Manchester City Football Club via the Abu Dhabi United Group, a private equity firm based in the UAE. Sheikh Mansour has proceeded to invest nearly £800 million in the formerly sleepy club, securing an elite coaching staff and some of the world's best players. The fact that the club posted the largest ever financial loss in English soccer history has by no means diminished his eagerness to project the image of the UAE through Manchester City's unprecedented English Premier League success. The Qatar Investment Authority, Qatar's sovereign wealth fund, acquired a 70% stake in Paris Saint-Germain, a French soccer club, and the club's new owners have similarly been rather generous in giving the club a major face-lift. The wealthy Qatari investor Sheikh Abdullah bin Nasser al Thani purchased Málaga CF, of the famous Spanish La Liga. Established clubs such as Arsenal, Barcelona, A.C. Milan and Hamburger SV have struck major sponsorship deals with Emirates Airlines and the Qatar Foundation.

This striking foray into European soccer is dwarfed by what is to be the most prestigious sporting event ever held on Middle East soil, the 2022 FIFA World Cup in Qatar. Qatar's incredible bid and the outlandish stadiums it proposed for the tournament are testimony to the country's zealous desire to rise in the eyes of the West. Qatar will undoubtedly have to spend massive funds to meet its obligations, and the newly built stadiums will be of little use after the event. But the country views them as a small price to pay for a platform to showcase itself before the world (and secure long-term tourism gains as well). Even if these

investments in marquee soccer clubs and events do yield poor or negative returns, the owners clearly attach great importance to the intangible prestige and benefits associated with the ownership of world famous clubs and events.

Qatar and UAE's outreach to the West is not restricted to soccer. The two countries have played an active role in attracting prestigious European and American universities to set up satellite campuses in Doha, Abu Dhabi and Dubai. Education City, an initiative of the Qatar Foundation, hosts branch campuses of Texas A&M University, Carnegie Mellon University, Georgetown's School of Foreign Service, HEC Paris and University College London, among others. Similarly, Abu Dhabi is home to campuses of New York University, Paris-Sorbonne University and INSEAD. The Masdar Initiative, a cornerstone project of the emirate of Abu Dhabi, is aimed at increasing research and investment in renewable energy through an Institute of Science and Technology developed in partnership with MIT.

The rationale behind inviting universities with strong brand value and an established research track record is more obvious than the acquisition of soccer clubs. The higher education landscape in the region is still in its formative years, giving these moves the ability to rapidly accelerate local human capital development. Since the availability of financial capital is hardly an issue, the two countries are more than willing to trade it for fast-track development of institutions they know to be critical to their long-term success.

Another avenue where one can find the intermingling of Western and Middle Eastern culture is in art and architecture. Ambitious ventures such as the Louvre Abu Dhabi and the Guggenheim Abu Dhabi serve as the epitome of this cross-cultural exchange. In 2007, the Abu Dhabi government entered into a $1.3 billion agreement with the French government to use the Louvre's name exclusively in the Middle East for 30 years and for expertise in museum curatorship, special exhibitions, and future art loans. Abu Dhabi signed an agreement with the Guggenheim Foundation to build Guggenheim Abu Dhabi, expected to be the world's largest Guggenheim. Most architectural landmarks in Abu Dhabi, Dubai and Doha bear the hallmarks of Western engineering fused with Arab tradition and design.

The benefits of this cultural outreach by Qatar and the UAE are plentiful. The West enjoys valuable economic considerations in satisfying the enthusiasm and occasional extravagance of Qatar and the UAE. For the UAE and Qatar, this serves as an opportunity for peaceful cultural interchange between the West and the Middle East. These ventures play a key role in liberalizing the culturally conservative region while attracting Western minds. The introduction of Western higher education will help narrow the ideological gap between the West and the Middle East and pave the way for greater collaboration in science, art, business and politics.

Of course, purists object to the commercialization of the heritage and legacy attached to historical names like the Louvre and the Guggenheim. Concerns abound regarding the tolerance of the populations of the two countries for contemporary and Western art which conflicts with Islamic ideals. Many argue that these two countries should look for cultural progress via indigenous means rather than wholesale Western imports. Most troubling of all is the rather checkered human rights record of these two countries and the implicit acceptance of them that accepting their money conveys.

Despite these issues, the benefits of this financial and cultural exchange seem to outweigh the disadvantages. These initiatives need not be viewed as a zero-sum game; both parties stand to gain tremendously. These adventurous endeavors to bridge the gap between these two diverse cultures is a clear indication that the UAE and Qatar see Western culture as a key towards developing more tourist revenue and establishing their standing in the West. They recognize the need to trim their economies' heavy dependence on oil revenue and to establish their cities as global hubs for tourism and business. Though potential roadblocks remain, many more such initiatives can be expected in the coming years. iBR

THE RISE AND RISE OF EMIRATES

BY AKSHAY SUBRAMANIAN (W'13)

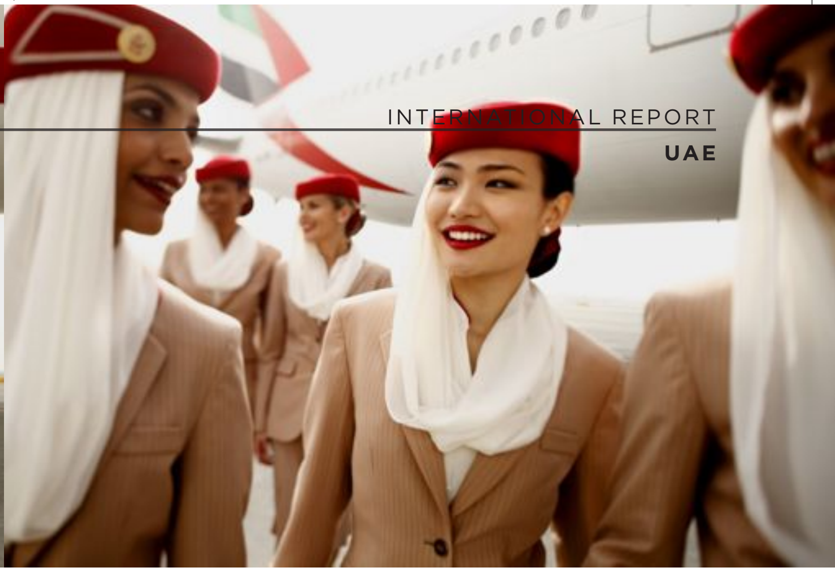
26 years after its launch, Emirates has established itself as a world leader in the aviation industry. Connecting 120 cities across 6 continents, it is now one of the world's leading airlines in revenue, international passengers carried and service quality. With a fleet of 170 aircraft and more than 230 aircraft on order , including 90 Airbus A380 aircraft, Emirates has been one of the few bright spots for the struggling aviation industry and seems well on course to achieving its aim of connecting any two destinations in the world with one stop at its hub in Dubai.

Prior to the birth of Emirates, the major airline serving Dubai and other Middle Eastern cities was Gulf Air, a government airline owned by Bahrain, Oman, Qatar and Abu Dhabi. In the early 1980s, Gulf Air attempted to extend its control over Dubai by having the government declare it Dubai's official national airline. When the government refused to do so, citing its "Open Skies" policy of non-discriminatory access, Gulf Air shut down large portions of its Dubai services.

This pushed Dubai to launch its own airline. In October 1985, five months after a feasibility study was conducted, Emirates was officially unveiled. It started off with a fleet of 2 leased aircraft, initial capital of $10 million, and an express stipulation of no additional government funding.

Given such a humble birth into an already mature industry, there was little reason to think that Emirates would make it very far. Yet by 1988 Emirates had 12 destinations; by the early 1990s, Emirates was one of the world's fastest growing airlines, carrying over 2 million passengers annually. By 2009, its 27.5 million passengers made Emirates, after just two decades, the 6th largest airline in the world. No airline flew passengers more kilometers internationally in 2009, and Emirates is rapidly catching up in cargo shipping as well. As the rest of the industry struggled, Emirates bucked the trend and soared above its competitors.

Emirates has set itself apart from other airlines with solid financial performance. It has recorded a loss just once in 26 years, in stark contrast to many of its bankrupt and struggling competitors worldwide. Emirates reached $500 million in revenue in just 8 years, and $1 billion 5 years after that. In fiscal year 2009-2010, despite the significant economic hardships faced by the aviation industry and Dubai in particu-



lar, Emirates generated profits of $964 million.

It has achieved this extraordinary profitability by providing quality service while maintaining operational efficiency, low overhead, cheaper labor costs and a flat organizational structure. Relying on large aircraft such as the Airbus A380, the airline cuts down on expenses incurred per head to offer fares competitive with rivals like Lufthansa and Air France.

Emirates raised the bar for the customer service. It was credited as the first airline with personal in-flight entertainment systems when it installed video systems for all seats in 1992. Emirates is one of the few airlines that allows passengers to use cell phones to make in-flight calls. It offers unparalleled ultra-long-haul service, with 7 full-time routes flying from its hub in Dubai to destinations like New York, Los Angeles, Sydney and Sao Paulo. It offers more seats on intercontinental routes than Air France and British Airways combined, which is incredible given that Emirates does not have a shadow of the domestic markets these two giants have.

These efforts serve to establish a strong brand and loyal customer base which closely associates travel to Dubai, whether for business or entertainment, with travel on Emirates. As "Dubai's airline", it is creative and aggressive in devising holiday packages including both flight and room at the landmark Burj Khalifa. It sponsors soccer teams and sports events, taking pride in being a symbol of Dubai's progress. Sheikh Ahmad bin Saeed Al Makhtoum, Chairman and Chief Executive of The Emirates Group, acknowledged this in an interview with Gulf News, a Dubai newspaper, "Together with Dubai, Emirates has grown and prospered. Working in tandem, the city and the airline have defied expectations, building an international business and leisure destination alongside a highly successful and profitable airline."

It has also taken a key strategic step by operating flights to regions, such as the Indian subcontinent and Africa, that have been traditionally underserved by the established carriers. Dubai's proximity to key markets in Africa, South and Southeast Asia, coupled with the relative weakness of national carriers and other major airlines in these regions, has enabled Emirates to maintain in excess of 180 flights a week to multiple cities in India and offer flights to 15 destinations in North and Sub-Saharan Africa.

These routes are part of a broader expansion of Emirates' already vast global network. The Airbus A380, the world's largest passenger airplane, is a focal point of this expansion strategy. Emirates has been the world's largest buyer of the A380; its $11.5 billion order for 32 A380 aircraft at the 2010 Berlin Air Show raised its prospective A380 fleet to 90 planes. By comparison, Air France, Lufthansa and British Airways have ordered 39 A380 aircraft combined. It also placed a $9.1 billion order for 30 Boeing 777 aircraft, seating over 300 passengers, at the 2010 Farnborough Air Show. Emirates sees international aviation being dominated by large aircraft in the future, as passengers insist on non-stop commercial flights around the world; only a fleet like the one Emirates is assembling can meet such demand.

Dubai's plans for the Al Maktoum International Airport are a huge boost; the new airport is expected to have the capacity to serve nearly 120 million passengers and 12 million tons of freight per year, making it the world's largest passenger and air cargo hub. Emirates will enjoy an entire terminal to itself.

But the path for Emirates is not turbulence free. Its competitors and the governments they operate under have become increasingly wary of the airline's progress, accusing it of being government subsidized. While Emirates has fervently denied this claim and has gone so far as to post audited financial statements to prove it, it can do little against the underlying protectionism that drives these fears. International carriers, particularly European ones, understand that Emirates' non-stop flights will bypass them and the hubs they operate in, reducing the number of passengers transfers. Lufthansa is a prime example; it is lobbying the German government to restrict Emirates' landing rights. Canada has already restricted landing rights in Toronto and Vancouver. Emirates rightfully sees this as an existential threat; given its aforementioned orders with Airbus and Boeing, a cutoff from major hubs worldwide would leave it with a glut of state-of-the-art airplanes with nowhere to land. In addition, the carrier faces stiff competition from new entrants Qatar Airways and Etihad Airways. Qatar Airways has adopted a strategy similar to that of Emirates and aims to catch-up in the near future.

Geo-political and economic challenges remain; Emirates would not be the first Middle Eastern firm to find itself cut off from major Western markets. But it remains undaunted and poised to continue its growth and industry leadership. Its geographical location, highly motivated management and business friendly home environment will continue to propel its meteoric rise from obscurity to international powerhouse. Its success thus far has proven it to be a cut above the rest. iBR

TREMORS IN THE HIGH-TECH POWERHOUSE

BY **SHANA MANSBACH** (C'14) AND **GUY VINER** (W'14)

Israel could fairly be dubbed "the little country that could". Boasting the world's highest number of scientists and technicians per capita, this country of 7.6 million people has become a high-tech powerhouse, churning out patents and Nobel prizewinners. With the largest amount of investment in research & development relative to GDP in the world, Israel has shot to the fore of this sector, now enjoying the highest concentration of high-tech companies beyond Silicon Valley. Such success, however, was far from guaranteed when statehood was declared in 1948, and forecasts for the future of Israel's high-tech industry are uncertain.

The dynamism of Israel's high-tech sector arose from geopolitical necessity. With arid land and a lack of oil, Israel cannot rely on the export of natural resources to drive its growth like many of its petroleum-rich neighbors. Its position amidst hostile Arab countries has also pushed Israel to undertake technological pursuits. The catalyst for the domestic defense industry was the Six-Day War of 1967, when a sudden embargo by France, its main arms supplier, convinced it of the need for self-sufficiency. Combining state sponsorship and private enterprise, Israel spent years developing an advanced defense industry whose advancements in artillery, air-defense systems, and aircraft are now exported across the world, with sales of $7.2 billion in 2010 alone. The scientific and engineering prowess of the defense industry has spilled over to other fields, inspiring rapid growth throughout the economy.

But Israel did not become a world leader in scientific publications and technological inventions with military advances alone. Its scientific productivity has been fueled by vast and well-managed waves of immigrants, a political and economic infrastructure developed to foster innovation, and a national culture of risk-taking and individuality.

Israel is a land of immigrants, with the majority of its 7.6 million people settling in Israel within the last 3 generations. The fall of the Soviet Union saw over one million Jews enter the country, increasing Israel's population by 20%. Over 100,000 of them were engineers or scientists, giving Israel the highest number of engineers per capita in the world by 2005, outnumbering the United States and Japan twofold. The expertly-managed assimilation of these and other immigrants has propelled Israel's high tech industry forward at astonishing rates.

But immigrants were not the only form of capital Israel sought abroad. Israeli legislation in 1959 began a decades-long campaign

to foster stronger business initiatives, employment, and exports. Government grants and tax benefits were used to increase Israel's attractiveness as a location for multinational corporations. The strategy succeeded; international investors flocked to Israel during the 1960s and 1970s, building facilities and hiring workers in cities like Tel Aviv and Haifa. Intel, for example, established its first design and development center outside of the US in Israel in 1974; this center has since been the primary developer of the famous Pentium 4 and Centrino processors. Microsoft, Cisco, and Google have also heavily invested in R&D facilities based in Israel.

At the World Economic Forum in 2000, Bill Gates noted that "Israel is advancing in high-tech even more than other developed countries." An active capital market, a strong banking system, a robust venture capital sector, and comprehensive protection of intellectual property have allowed the technology sector to expand at a brisk 10% to 20% clip since 2003. Employing 8% of the civilian workforce, the high tech sector generates an estimated 15% of the country's GDP. Israeli R&D spending as a percentage of GDP is more than double that of the United States.

But Israel's greatest secret to success lies in its culture, which prides itself on operating under conditions of uncertainty and rapid change. Vital entrepreneurial characteristics, such as the willingness to take risks, the capacity to learn and make decisions quickly, and a tremendous desire for success are encouraged. These traits carry over to business management; senior managers in top Israeli companies in the high-tech sector often refer to their strong preference for original thinkers, ones who do not hesitate to introduce alternative approaches. Conformity with and awe of one's supervisors is neither encouraged, nor in keeping with the culture of independent thinking and active intellectual dissent.

These uniquely Israeli features have allowed the country to flourish. Teva, which delivered medicine by camelback in 1901, became the world's largest generic drug maker. Given Imaging created a pill-sized camera as a noninvasive and painless alternative to traditional endoscopies. NICE Systems developed emotion-sensitive software and call monitoring systems to become the world's largest financial crime, risk and compliance solutions provider, serving over 25,000 organizations, including the NY Metropolitan Transit Authority, American Airlines, Mastercard, UBS, and the Eiffel Tower. Dozens of major multinationals including Alcatel, Oracle, Pfizer, Siemens and Texas Instruments have opened R&D centers in Israel.

With such a wildly successful high-tech sector, prospects for the future might appear bright. Serious cracks in the infrastructure supporting it, however, present trouble in this high-tech paradise. A serious human capital problem lurks on the horizon; mass waves of immigration into Israel have stopped, while brighter prospects have attracted many young Israelis abroad, creating concerns of a severe brain drain. Despite its internationally ranked university system, Israel offers poorer job prospects for some of its graduates. It is a far smaller market than the United States and offers fewer positions and lower wages. For example, a university graduate with an economics degree can expect a starting salary three to four times greater in America than in Israel. Large numbers of Israeli PhDs are migrating to the US for higher salaries and advancement opportunities, especially in the fields of economics, finance, and computer science.

The brain drain may yet be staunched by comprehensive government action. Prime Minister Benjamin Netanyahu has already invested about 450 million shekels (120 million USD) in a program establishing "academic distinction centers" at Israeli universities, designed to attract Israel's scientists and researchers back to Israel by combining masters and doctoral degrees into one program. Incentivizing young and educated Israelis to stay in the country is absolutely critical for Israel to remain a high-tech powerhouse.

A final source of hope for the high-tech sector resides in the peace process with Syria and the Palestinians. It would allow for reductions in annual defense spending, which has amounted to 9-10% of GDP in recent years, compared to 3% in the US. Reallocating these funds to more profitable sectors like infrastructure and R&D will give economic growth new life. By alleviating the uncertainty that complicates the decision-making of Israeli economic agents, a regional peace would introduce a novel degree of normalcy to Israel's economic situation and thus bolster the success of the high-tech sector.

Although highly susceptible to the fluctuations in the global economy, Israel's high tech sector is backed by a dynamic financial and intellectual infrastructure that will allow it to continue flourishing in the coming years. Led by risk-seeking individuals committed to innovation, the high-tech sector is capable of adapting to changing markets. By pursuing export market diversification, Israel can reduce its reliance on its traditional import nations and refocus its attention on emerging markets thirsting for its high quality goods. For the past 60 years, Israel has been working to establish a social, political, and economic infrastructure to support innovation. Now it must harness this innovation, Israel's greatest asset, to remain competitive in the future and continue to surpass expectations. iBR

THE NEW COLONIALISM:

AFRICA'S NATURAL RESOURCE PROBLEM

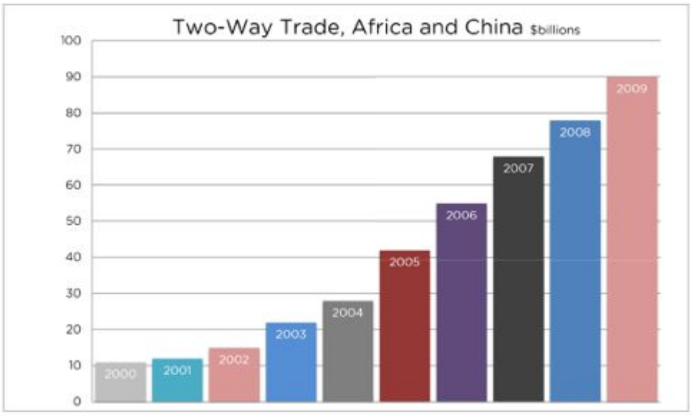
BY LEILA EHSAN (C' 15)

Fears of exploitation have always dominated African headlines; many still believe that the sting of 19th century European imperialism continues to retard the Continent's economic development. Although formal colonialism is long gone, conflict remains. European and American firms continue investing in and managing Africa's vast natural resource pools, often to the ire of people the world round. But the situation is about to get a great deal more complicated as China, operating on its own interests and moral standards, eclipses the West as the dominant player in African affairs. This dominance prompted Secretary of State Clinton to voice fears of "a new colonialism". These are powerful words, but a review of Africa's mining history is needed to assess their legitimacy.

The African mining craze first started in 1867, when a diamond was discovered on the shores of South Africa's Orange River. Thousands of native and foreign prospectors rushed to the region in search of the gold and diamond mines that would make them their fortune; ever since then, the mining industry has proliferated throughout Africa. But after the initial land grab, business in Africa proved increasingly difficult to maintain; the vast sums of capital foreign companies poured into developing mining operations could not tackle the many issues that prevented their success.

The size and untapped potential of Africa's natural resources is astounding. South Africa alone is estimated to have mineral wealth exceeding $2.5 trillion, exceeding the totals of any other country. But South Africa is not alone in its stockpiles of buried treasures. Ghana enjoys massive gold production, Zambia is a world leader in copper, and Guinea has some of the world's largest bauxite and iron-ore deposits. As many of these metals rise in price, the allure of Africa's riches grows more and more irresistible for foreign companies looking for major new profits.

African governments know this, and they are unafraid to use their 'home court advantage'. Existing miners throughout the continent report constant struggles with corruption and the law. Fears of partial or outright nationalization, like that seen in Zimbabwe, where President Robert Mugabe forced local mines to surrender 51% of their ownership to his government, are always present. This is especially true in countries where economic and political institutions are weak; the urge for the government there to vilify foreigners and seize their assets can be very powerful. Even in better cas-



es, such as Zambia, governments still see these mines as an immediate source for tax revenues.

Such behavior, while immediately lucrative for the host countries, has serious long-term implications for their economic development. The resulting 'cost of business' in Africa can make costs surge without warning. If companies constantly fear their profits and ownership being either evaporated or stolen, they will significantly curtail investment. Any projects they do adopt will have shorter life spans and smaller capital expenditures. Any ideas of 'partnership' with local communities morph into questions of 'how to make the money back' as quickly as possible. Africa effectively starves itself of desperately needed foreign capital for the sake of short-term interests.

There are many ways for these governments to avoid resource nationalism while encouraging foreign investment. Local poverty has often been the excuse for governments seeking higher rents, yet these funds are rarely redirected to the people. Cleaning up corruption and cronyism will make sure citizens, not autocratic leaders, benefit from these mines. Imposing higher minimum wages will also improve equity. Contract rights need to be protected; governments can't have such extensive rights over land that has been legally purchased. Programs to improve infrastructure can be very beneficial to both the local area and the mining company that occupies it. There are clearly many better ways to transfer wealth locally than outright expropriation.

Sustainability and partnership are hardly impossible between governments and mining firms. In Botswana, diamonds contribute to half of the government's revenue, making its citizens among the wealthiest African countries in income per capita. This is the result of a very stable relationship with De Beers, with whom the government created the highly successful diamond mining joint venture Debswana. Botswana was able to make itself an exception by establishing a reliable government and having its population feel that everyone was profiting from the mining. The stability of government and popular support is critical for mutual success.

But recent years have seen a new development in African mining that isn't welcome by everyone; the intense involvement of the People's Republic of China. China is now Africa's leading trading partner, leading the United States $90 billion to $86 billion in 2009 trade volume. China needs Africa to satisfy its desires for raw materials, including oil, minerals and most especially metals. Furthermore, Africa is home to fast-growing economies which are vital outlets for the export of China's manufactured goods.

There is a rather symbiotic relationship between many African nations and China; in return for access to natural resources, China builds large-scale infrastructure projects in these countries, funding the construction of roads, dams, hospitals and ports. This is benefiting these countries by stabilizing their politics and enabling long-term economic expansion. But not all are happy with this.

Many Western leaders disagree with China's "non-interference" policy with local political leaders. They feel the governments there are suffering from a "resource curse", where a superabundance of easily accessible resources prevents economic development and encourages corruption. They feel that the Chinese will provide no supervision of where government revenue is spent and might even turn a blind eye to political violations (the opening of mines there is already an implicit endorsement of the local leadership).

There is also international concern about China's investments and businesses in Africa, which have not met international standards of transparency. Concern is growing that the Chinese might be taking advantage of the African people. In many cases, the Chinese do not hire local labor at all, instead importing Chinese workers for their mining and infrastructure projects, keeping the host country's unemployment rate stagnant.

These relationships are beneficial to African nations, but they have limits on ultimate economic development. They do nothing to break the cycle of underdevelopment in these countries, and the overdependence on natural resources remains. As soon as the resources end, China will likely pack its bags, leaving behind the same protectionist barriers, undiversified exports, anti-business policies, rampant corruption and armed conflict that dominated the scene when they got there. If Clinton's fears of a "new colonialism" are to be avoided, African countries must make deeper commitments to break their perpetual reliance on natural resources and establish mature economies. iBR

JAMBA JUICE CEO:

JAMES WHITE

“I WAS AT THE HELM AS A NEW CEO IN THE MIDST OF WHAT WOULD BE THE GREATEST FINANCIAL CRISIS OF OUR LIFETIMES.”

INTERVIEWED BY LAUREN ZAKARIAN-COGSWELL (C'15)

THE TRANSFORMATION OF JAMBA JUICE AND THE IMPACT OF WHITE'S FRESH LEADERSHIP

James D. White serves as the Chairman, President, and CEO of Jamba Juice Company, a prominent health-food retailer. Previously, Mr. White has served in key roles at other major retailers, becoming known as a master of turnarounds. IBR sat down with Mr. White to discuss his role in Jamba Juice's national growth, international expansion, and planning for the future.

Mr. White, when you took the helm at Jamba Juice in December of 2008, Nasdaq and the S&P 500 had just taken a nine percent tumble and the National Bureau of Economic Research had officially declared that we were enduring a recession. What were your initial expectations and anticipated challenges of managing through the downturn?

The frightening part of the situation was that we were in the midst of a recession and I was at the helm as a new CEO in the midst of what would be the greatest financial crisis in at least our business lifetimes. But that aside, I was brought in to turn around the company and reset the strategies and position the company for growth.

That actually leads me right into my next question. A 2010 article about your career in the San Francisco Chronicle cited your ability to turn around company performance and catalyze growth, as shown in your experiences with Gillette and Safeway. Is there a formulaic component to your strategy, or do you form your decisions mainly on a case-by-case basis?

I would make two points. One is that there is definitely a playbook that I leverage in terms of what the right steps are for changing and transforming a company and a business, but it also is very much situational. Jamba is in a different industry than I had worked in previously, but from my perspective leadership is leadership, and it transcends sectors and industries. But there is definitely a playbook that I leverage.

How have you applied this strategy to Jamba Juice in particular and to what extent have you seen progress in the past three years?

We started by laying out a strategy and tried to engage the entire organization to get input on what things needed to be fixed, what things they hoped that I wouldn't touch or change. Then we formulated what we described as "BlendPlan", which is now "BlendPlan 1.0" that we put in place in January 2009, and that was the blueprint to turn around the company and it had several components. There was a financial turnaround, a resetting of some of the core strategies for the company, and a longer-term view to really build a sustainable company. Those were the three high-level components. On a more tactical basis, there were five strategies that we employed. We report 2011 earnings later this week and we have significantly turned around same-store sales. It will end up being the best year we have had as a public company and we've significantly improved the profitability. 2012, to be exact, will be the first time that we will turn the company back to profitability since going public in 2006.

How do you balance short-term and long-term goals when planning significant changes in the operations of a multimillion-dollar company?

My turn-around strategy here at Jamba was a three-year strategy. I always go to the endpoint and then back up to where we are and try to break it apart into quarters. We've announced our "BlendPlan 2.0", which is the growth phase of my time here and we have done the same thing: so we project it to 2015 and then work ourselves back to 2012 and break it apart into annual plans and quarters.

When making the transition as an executive from one company to another, how do you establish yourself as a leader in an unfamiliar environment?

In the case of Jamba, I visited with all the key direct reporting executives on the first day. I held a town hall – there are more than 120 people in this building – and pulled them in at the end of the day for a couple of hours and then I worked my way through the organization. Really I was more listening, but I want to understand what I don't know, and then I take that input and use it to formulate especially the people part of the strategy, and in some cases the business part of the strategy.

You were recently commended by the White House for your partnership with the Department of Labor and Job Corps. Could you elaborate upon this initiative and outline the impact that has been made on employment opportunities for disadvantaged youth?

This is a program that dates back to last summer. We made a commitment to add an incremental 2500 jobs for the summer in 2011 and we beat that goal by a few hundred jobs. We had about 2700 jobs. We were commended by the White House for the work and we have stepped up again for 2012 and made a similar 2500-job commitment. But more importantly, we have built a significant relationship with the Job Corps, so we are going to participate with their culinary programs on a nation-wide basis and create pathways to disadvantaged youth from both urban and rural settings. And the Job Corps has two basic programs: they have a basic culinary arts program and the kids go through eight months of training, and they have an advanced culinary program and they go through another twelve months of training.

Jamba has expanded internationally to Canada, South Korea, and the Philippines. What went into the decision of making this expansion and what were the factors considered when marketing your

James White, CEO

James D. White serves as the Chairman, President, and CEO of Jamba Juice Company, a subsidiary of Jamba Inc. He served as Senior Vice President of Corporate Brands at Safeway Inc. from September 2005 to 2008. Mr. White oversaw the Safeway's entire Corporate Brands organization including its marketing, manufacturing, finance and outside sales functions. From July 2002 to 2005, Mr. White served as the Senior Vice President of Business Development for The Commercial Operations of North America of the Gillette Company. He served as the Senior Vice President of Consumer Brands for Safeway Stores with responsibility for brand strategy, innovation, manufacturing and commercial sales. From June 1986 to May 2002, Mr. White spent 15 years at Nestle Purina Petcare, where he played a key role in developing its core capability as a worldwide provider of private label brands across the food, mass and specialty channels. He served as Director of Human Resources - Safeway Stores at Safeway Limited. He served as Vice President of Customer Interface for Nestle Purina Pet Care Company from 1999 to 2002 and its Vice President, Customer Development East from 1997 to 1999. He spent his formative years as an executive at Coca-Cola Foods in various marketing and sales development positions in 1980. He has been a director of Daymon Worldwide, Inc. since February 2010. He has been a director of Jamba, Inc., since December 1, 2008. Mr. White served as a director of Keane Inc. since February 2004. He serves as a member of The Organic Center's Board of Directors and the PTA Advisory Board. Mr. White holds a Bachelor of Science degree in Marketing from the University of Missouri and an MBA from Fontbonne University.

product to a foreign consumer demographic?

As we worked our way through the transition, we got to point where we knew the turnaround was going to happen, and we opened back up the opportunity for us to take the brand outside of the U.S. Once we hit the downturn, however, we re-grouped and focused on our domestic activities. Then we got to a point eighteen months ago when we were again prepared to chase our international opportunities. Much like the overall company strategy, we had a game plan where we laid out the key markets and the characteristics of the partners in those markets that we want to pursue, and then we started to have conversations.

In an industry as saturated with competition as the one that Jamba Juice is in, how do you distinguish yourself and your product?

We have been distinguished from the company's founding and we have always played in what I would describe as the "health and wellness" space. We were founded almost 22 years ago around inspiring and simplifying healthy living, and that has always been the mission and purpose of the company. I don't know if you've read the book Blue Ocean Strategy by Mauborgne and Kim, but it discusses the metaphor of blue oceans and red oceans. The red oceans are crowded and in them you are more likely to be in a commoditized field. The way I've thought about Jamba, on the other hand, is a blue ocean, where you literally redefine an industry, and Jamba plays in this better-for-you niche where there are not many peers for on-the-go, healthier solutions. That is intentional, so those higher margins are playing against the favorable trends of looking for better-for-you options. That is the way I would describe our vision of the future.

And that leads into a later question that I'll just skip straight to. How do you think eating habits and the idea of a healthy lifestyle will change in the future and how do you see the market for your brand changing according to this evolution?

I think there is a significant shift and actually an acceleration in these trends. You probably have a good sense of this, but the fact that your generation is growing up looking for healthier alternatives and leads a much more active lifestyle, and I think that plays to the Jamba advantage. We are seeing a lot of success on college campuses and we are starting to make significant in-roads in K-12 schools.

In the company's January 2012 SEC report, it announced plans to accelerate its global retail growth and expand JambaGo operations. Could you elaborate on the nature of the JambaGo campaign and your main strategies for building the company's growth into a global brand?

We have been focused on making the brand more accessible from a consumer-perspective, which is at the highest-level of what we want to do globally. We think there are lots of different venues where the brand can play and JambaGo gives us a vehicle to go into schools, colleges, and airports as an accessible play on healthy, on-the-go, great-tasting food products.

I was actually going to mention that I was looking for a Jamba Juice in Philadelphia and I couldn't believe that we don't have one near Penn!

I actually advised her to call the food services director and she was stunned that it worked. She started a Facebook campaign on campus and had 400 people that signed up to bring Jamba to Columbia. The rest is history. I think we'll actually have a couple of locations on the Columbia campus by the end of the year. You'll have to do that at Penn then!

I definitely do. Now, if you were to hire a C-level executive today, what traits would you look for in an ideal candidate?

At Jamba we are looking for people who fit the culture; those who either live active lifestyles or have an interest in transitioning to being more active. Brand fit is crucial for the company that we are building. Jamba is a more community-oriented, purpose-driven company, so I'm also looking for executives who would bring that kind of sensibility in addition to the requisite skill-set for the particular position.

If you graduated from Wharton today, what would be the first step you would take tomorrow?

I would try to be very clear on my passions and I would have a short-term game plan. The point I often make is that most people don't have a concrete plan of action, so if you have any such plan regarding the path of your professional life, you would be in the company of only about three percent of the population. If you take the further step to write it down, there is even less of the population that has a written plan for their careers. Those would be the two things I would do, and I wouldn't wait until I graduated, I would do it now. What I find interesting is that if you write it down, the mind pulls you toward what you want to achieve. Even if it does not play out exactly as planned, you give yourself direction in the beginning of your journey. iBR

Could you elaborate on Jamba's international expansion efforts and the nature of its appeal and consumer demographic outside of the U.S.?

There is a lot of potential for Jamba outside the U.S. If you look at it from a consumer standpoint, the consumers tend to be a lot more alike globally than they were a few generations ago. If you look at what excites the younger generation, there are a lot more similarities and appeal of foreign brands as a way of aspiring to a Western lifestyle then there were a long time ago - more importantly, the trend around the healthy, more active lifestyle. What's very interesting is that the metabolism of people got into equilibrium with a certain kind of food and lifestyle. If you change that a little bit, then everything goes haywire. People get obese in Europe and in Asia and I think that they are looking for more balance and Jamba is very relevant and appealing in that context. It's still a wide space in the market to develop, you don't have a lot of established chains but you have regional ones that are all 100 percent franchised and typically tend to be small companies with little resources. They are not very well positioned to support international expansion. And I would say in our space, Jamba is fairly unique with a strong base of stores and we lead in innovation and quality of ingredients among other areas.

So you consider the relevance of the idea of a healthy lifestyle as that

Mr. Thibault de Chatellus serves as Senior Vice President of International at Jamba Juice Company. Mr. de Chatellus is responsible for overseeing operations services, international growth and operations, franchising partnerships and operations, store development and design of Jamba. Mr. de Chatellus has over 20 years of leadership and international experience, including business development, merchandising, category management and retail operations. Prior to Jamba Juice, Mr. de Chatellus served as an Independent Consultant focusing on business development strategies in international markets from July 2005 to May 2007. Prior to consulting, Mr. de Chatellus served in several senior executive positions with Blockbuster, Inc., and with McKinsey & Co. and Chase Manhattan Bank in Paris, France. Mr. de Chatellus received his MBA and Bachelor's degrees in Marketing and Accounting & Finance at Frances leading business school, Ecole des Hautes Etudes Commerciales in Paris.

which ties the demographic of Jamba's foreign markets to its counterpart in the U.S.?

I think that shows the opportunity; then, if you look at why Jamba can execute better than everybody else, there are a couple of reasons. One, as I said, I think we are in a unique position with the resources we have, because we operate a large number of company stores that gives us the opportunity to have this office, this building, the resources, the innovation. Two, it also gives us the opportunity on the sourcing side. We have a lot of scale that our competitors don't have, so when Jamba enters the market, we have a level of quality and product consistency that no one else could execute. The last piece is from a brand perspective: our brand is in a very different area when it comes to health and wellness. Now that is mostly in the U.S. today, but in a digital world, we have a lot of friends on Facebook who don't reside in the U.S. and when they travel or study here, they come across Jamba Juice and they come back to their home country and say "Wouldn't it be great if Jamba came here?" That is what we found when we opened in the Philippines in particular.

Did you find significant differences in the set of protocols involved in foreign business negotiations when expanding abroad as opposed to expanding domestically?

If you think about the United States, we have a system, an infrastructure, suppliers, marketing, our brand – all that exists, so if you are a franchisee and you want to develop stores in Atlanta, you have that enormous umbrella of support. And your role is to grow that brand in whatever territory you have decided to develop. Our franchisees tend to be very savvy businesspeople who have restaurant experience and are well-connected in their local community who will operate multiple stores. When you look at the international perspective, however, our partners are people who are going to develop the brand in the entire market and help us work the supplier relationship and put the distribution at work, so there are a lot of things that a local franchisee does not have to do in the U.S. We tend to work with bigger corporations with more scale and possibilities than an individual franchisee here. Our partner in South Korea operates 4500 stores in Korea alone, which is eight times larger than Jamba Juice itself. So it is a company that has enormous capability; their brand is one of the most admired brands in the country, and thus has capabilities to develop brands in their market that are very unique.

Considering the positive experiences that you have previously cited working at McKinsey & Co earlier in your career, what advice would you give a student looking to pursue a career in consulting?

Today things may be different, but when I joined McKinsey, we were really looking for people who have proven operating job experience and accomplishment in a certain industry before they joined consulting. We would typically not hire students fresh from school. We wanted people who had accomplished something, gained credibility in their field, gone to business school, and then they would join the firm. In those days consulting consisted mostly of systems, operations, organization, IT, cost-cutting, productivity-type projects. Today, you have consulting firms like Deloitte that are more open to hiring fresh-from-school applicants and giving you a path with more interesting assignments and consulting than they did twenty years ago. But I think that there is value in getting operational experience before you do any type of consulting. Do you want to learn the world from day one entirely through the eyes of a firm? Or do you want to see what else is out there? And if that is what you choose to do, it does not necessarily matter where it is as long as you've proven and accomplished something in an operating role. It could be in sales, marketing, operations - it could be anything. You are proving the ability to lead people, to work in teams, and your determination of getting something done. Consulting is not just using the smarts you gain in business school, but also being able to lead people and drive things, which you tend to prove in a successful operating job. iBR

ST. CROIX: AN ISLAND IN CHAOS

BY JAMES CALVO (W' 15)

In the midst of the Caribbean's Virgin Islands sits the sleepy, little-known island of St. Croix. The poorest of the US Virgin Islands, St. Croix's economy relies on big businesses seeking tax breaks rather than on tourists seeking sun and sand. This economic model, pursued by the island for decades, is now in crisis due to sudden and unanticipated shifts in the business climate; almost overnight, the laid-back island has been jolted into chaos.

St. Croix was historically an industrial island, beginning with sugar cane plantations in the 1500s, as its shallow ports prevented tourism from flourishing. Until recently, the island was best known for its rum distilleries and oil refinery. But on January 18th, Hovensa, one of the largest refineries in the world and the island's largest private employer, announced it would permanently close due to competition from emerging markets. Overnight, St. Croix unemployment more than doubled, to 18.7%, and the government's operating deficit rose 97% due to lost tax revenue. While citizens are outraged at Hovensa for destroying their economy, this was only possible due to problems that lie much deeper.

One problem is the government's strategy for attracting multinationals to the island. For years, the St. Croix government has waived most corporate taxes for US businesses opening new offices on the island and hiring locals. It has worked; many firms, especially financial ones, have made St. Croix home. In 2010, the Captain Morgan rum distillery moved from neighboring Puerto Rico to St. Croix in exchange for heavy tax breaks, despite a heap of animosity from Puerto Rico.

But this strategy institutionalizes economic volatility. Roughly a quarter of the population is made up of US immigrants who come to the island along with the businesses that relocate there. When those businesses decide to pack their bags, these immigrants tend to do the same, meaning that the closure of an outside-owned business means much more than layoffs; it means an outright population reduction. St. Croix doesn't even get to have the unemployment benefits it pays to laid-off workers get plowed back into the economy. A perfect recent example of this was when the SEC shut down Allan Stanford's Crucian headquarters on charges of one of the largest Ponzi schemes in history; enrollment at the island's private schools fell nearly 20% as bankers and their families looked elsewhere for work. Hovensa's closure threatens an even more severe outflow of unemployed petroleum engineers and other specialized workers.

Another critical problem facing the island is the lack of information. The GDP of the Virgin Islands, let alone St. Croix itself, has not been calculated since 2004, when it was estimated at $1.6 billion by the World Bank. The only economic statistic the Virgin Islands does measure is the unemployment rate—nothing else. The lack of information makes it difficult, if not impossible, to effectively govern the island. The debt-to-GDP ratio, a key statistic indicating the health and stability of the economy to legislators and investors, effectively doesn't exist. Many economists believe that a country's economy is not long-term sustainable if this number rises above 100%. With nearly $2 billion of municipal debt outstanding at the end of FY 2011, the debt-to-GDP ratio will likely be well above that threshold by the close of the year, and the markets are already pricing in this concern. Yields on ten-year Virgin Islands municipal bonds have risen to 4.3%, well above the 2% recently demanded for US treasuries. Virgin Islands debt is backed by gross receipts taxes and the "rum fund", a pool of excise taxes on rum exports; a dramatic fall in either of these revenue streams, very possible in a deep recession, would make Virgin Islands debt far riskier. A troubling sign is that Barclays Capital's municipal derivatives desk recently rejected a VI debt interest rate swap, citing counterparty risk and the bonds' unusual unusual direct dependence on income from the excise tax. If interest rates rise any higher, default lurks around the corner.

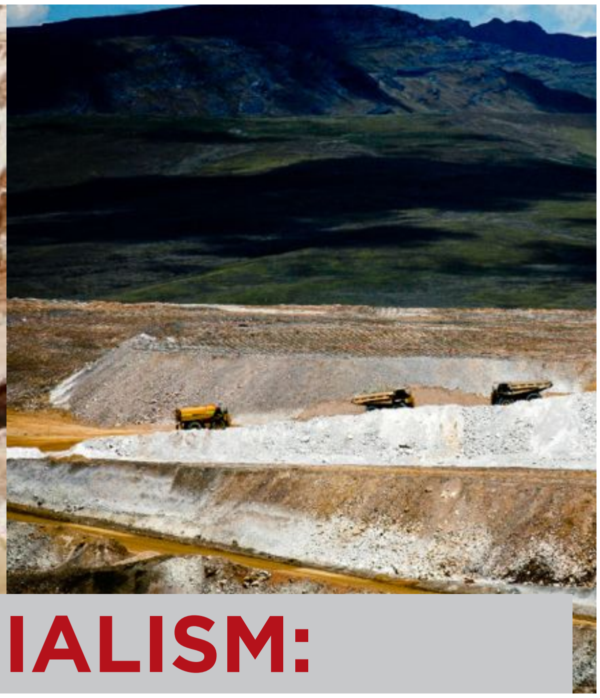
But the most serious issue facing St. Croix might be its politics. Shortly after Hovensa's closing, the VI's 15-member Senate made several potentially dangerous decisions. Facing a spiking deficit, the Virgin Islands governor asked that the Senate issue more bonds—a simple request, but one complicated by the bonds' reliance on the excise tax. In order to preserve its credit rating, the gross receipts tax rate had to be raised to match additional bond interest expense. However, the Senate voted to issue more bonds without raising the tax, disregarding potential market consequences. Even though tax hikes are universally disliked, even the public became outraged that the Senate directly threatened the government's ability to finance itself. Soon after, one senator was discovered to have been convicted on three counts of tax evasion in 2009. Attempts to recall several other senators failed when the law was inexplicably found to require half of all Election Day voters, rather than half of all voters for the senators, to effectively vote to recall them. Just as absurdly, the Senate has spent months meeting, trying but failing to make a plan to power the island after fast-dwindling Hovensa-produced oil runs out. With the economy in chaos, St. Croix is furious at its government.

Hovensa oil refinery before it shut down on January 18.

> "The lack of information makes it difficult, if not impossible, to effectively govern the island.

The territory's labor laws have sparked recent debate. The Virgin Islands is home to the Wrongful Discharge Act (WDA), which makes it prohibitively difficult to fire employees; among other stringent rules restricting dismissals, it permits an employee who files a complaint against his employer to force the employer to indefinitely retain him. An op-ed in VI's Daily News in February from the CEO of a large firm seeking to take advantage of the island's tax breaks explained that his decision to settle elsewhere was due entirely to the WDA. Calls for change in labor laws have grown increasingly loud as the government struggles to help the territory.

The problems beleaguering St. Croix are numerous. Volatility-inducing economic practices, a lack of economic information, and an inept government and legal system have left the island's economy in tatters. As a territory of the United States with its own tax code, St. Croix has the potential to offer a business-friendly offshore environment within the confines of the United States. Unfortunately, without major reforms and a smarter government, the future looks grim. iBR



LATIN AMERICAN SOCIALISM: HUMALA AND PERU

BY NICOLAS GOMEZ (W'15)

It is well known that Socialist parties have started to gain strength in Latin American countries in the past few years; Nicaragua, Venezuela, Ecuador, Bolivia, Argentina, and now Peru have all elected socialist presidents since the start of the decade. Venezuela originated this current socialist wave when Hugo Chavez was elected president in 1999; he has used his position to help other socialist leaders in the region obtain key political positions through campaign financing ever since, accelerating the rise of Latin American socialism. Many speculate this wave was caused by resentment of the neoliberal economic policies which a host of Latin American countries adopted in a failed effort to reduce poverty. Although economic growth was evident throughout the region, the lower classes were left behind as the gap between the lower and upper classes widened. Peru now joins the ranks of the countries expressing dissatisfaction with its conservative government.

Peru's first conservative president was Alberto Fujimori (1990-2000), who was succeeded in office by similarly conservative politicians. During this period, economic growth in the country was substantial; nonetheless, poverty levels hovered at 40% of the population.

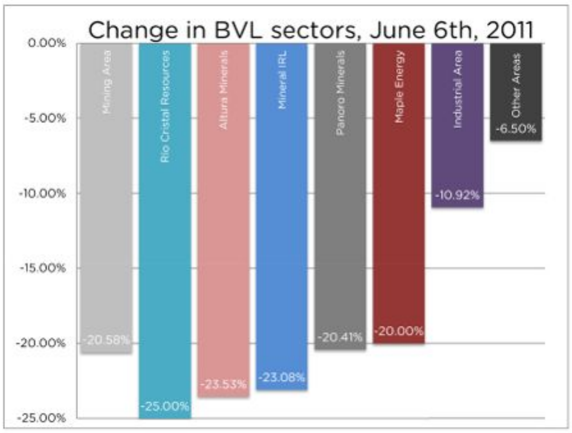
In 2006 elections were held to elect a new president. Ollanta Humala participated in this election, identifying himself as a socialist, and, as all the other socialist leaders of the region, promised to reduce the gap between the lower and upper classes. He campaigned by affirming that the natural resources of the country were being exploited only to benefit the higher classes and that he was going to change the economic system in order to help the lower classes. However, Peru trusted a conservative again and elected the former president Alan Garcia for his term in 2007-2011. Garcia pledged to preserve the free-market system and spur economic growth for everyone. During his presidential term, Peru enjoyed the benefits of a capitalist system, with GDP growth averaging 7.13% (global GDP growth was just 2.52%). But while free-markets were in full swing, not everyone was happy about it; lower classes felt exploited, since most of the jobs being created were in the mining and manufacturing businesses—the jobs they were offered did not pay enough for them to live comfortably. The biggest beneficiaries were foreign companies and members of the Peru's higher classes, who owned the businesses or worked in executive positions for those firms.

Four years later, in 2011, elections came again. This time Ollanta Humala campaigned with the same arguments he did in 2006 against his strongest conservative competitor, Keiko Fujimori, daughter of former right-wing president Alberto Fujimori. Keiko was marked by her father's criminal acts during his presidential period, and Humala's ideas were well received by the lower-middle and lower classes (which comprise most of Peru's population). Thus, Humala had no difficulty wining the election and becoming Peru's new president.

Humala started his professional life as a member of the Peruvian military; he fought in the internal Peruvian conflict against Shining Path, a Maoist guerilla group, and in the Cenepa War against Ecuador. In 2000, he led an unsuccessful military revolt against the regime of Fujimori, but the Peruvian Congress granted him a pardon after Fujimori's period ended. The fact that he was a member of the military, particularly a member of the revolt against Fujimori, played an essential part in his election. In the eyes of the people of Peru, this showed his disgust with the way the conservatives had managed the country and gave the public a sense that this candidate was actually "one of

them", as opposed to the other candidates, who came from privileged economic backgrounds in Peruvian society. These are the qualities of the stereotypical emerging Latin American socialist leader. Chavez, Ortega, Correa, and Morales all present themselves as members of the lower classes who fight for the people's rights and promise economic equality. These leaders also share another trait—hatred for American foreign policy. All feel exploited by what they call the "Imperialist Power" of the United States.

With remarkable similarities between Humala's political and economic views and those of Chavez and other socialists, the markets have suggested some of the repercussions Humala's presidency may have for Peruvian economy. Humala was elected president on June 5th of 2011, and the following day, Lima's Stock Exchange (BVL) registered a plunge of 8.7% on the IGBVL, the general index used to measure the performance of Peru's 36 most important firms. The BVL registered a fall of 20.6% on stock from companies in the mining industry, 10.9% for companies in the manufacturing industry, and 6.5% in all other industries. These movements were a reaction to Humala's idea of changing the way in which Peru uses its natural resources. Humala is not supportive of the idea of privatizing the exploitation of such resources and believes that doing so is harmful to the lower classes.



But this isn't just a question of natural resources; the market-wide decline was due largely to the negative precedent set by all the other socialist Latin American presidents in the last decade. These other presidents have made their respective national markets less efficient by taxing the outflow of capital, increasing subsidies for the poor and rapidly increasing base salaries. Investors fear that under this new regime, Peru is no longer going to be an oasis in Latin America for investment and development of new businesses, and for good reason. Foreign investment in Peru has started to slow down because of the new government. In 2011, foreign investment reached a total of $7.6 billion, while the projected total was $8.5 billion. Projected totals for 2012 have fallen to just $7.3 billion. These are all consequences of Humala's election and the likely steps the country will take towards socialism. After enjoying amazing economic growth and an outstanding increase in foreign investment, Peru seems doomed to slow its growth until the country elects a new president or until Humala changes his positions and continues the path taken by previous governments.

Does hope remain? Despite Humala's ideas and economic positions, his election might not be the economic end of Peru. Unlike his fellow socialist presidents, he was unable to obtain a majority in Congress, which remained in the hands of the conservative parties; this will be a serious obstacle for his projects if he tries to interfere with the economic system too much. Nonetheless, sudden changes in congressional positions are not uncommon in the region, and other socialist presidents such as Correa have managed to call for parliamentary elections in order to achieve a new majority in Congress. Perhaps we shouldn't get our hopes up. iBR

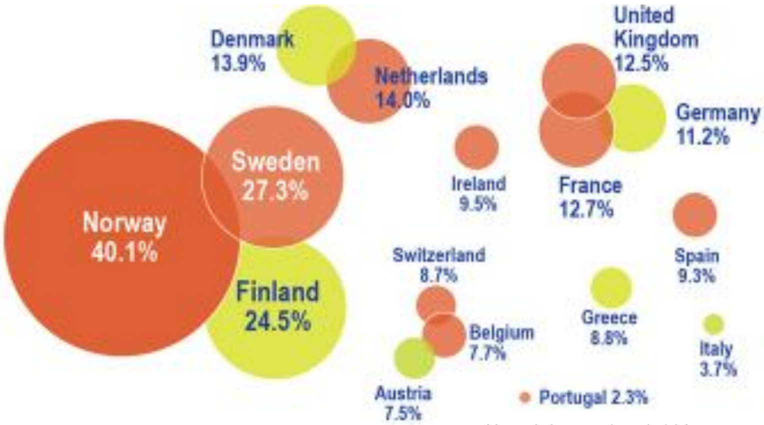
IS MONTI ITALY'S ECONOMIC MIRACOLO?

BY ALLISON COLLINS (W&C'15)

It certainly cannot be said that Berlusconi left big shoes to fill, but Italy's new Prime Minister – Mario Monti – has already proven to be just what the country needs. Recently dubbed the most important man in Europe by Time Magazine, and nicknamed the "Iron Monti" after Margaret Thatcher, the new prime minister's economic reform efforts have garnered extensive support in the international community. He has exerted influence in the Eurozone through negotiations for a Greece bailout while internally establishing a platform of eliminating trade limits, licenses, or consent, and items that "aren't justified by a constitutionally relevant general interest." Monti has targeted both large-scale reforms and changes as small as permitting the sale of newspapers at locations other than newsstands. Although he has been in power for a short period of time, there are clear signs that he is succeeding.

One area of focus regarding liberalization is modernizing Italy's archaic business practices. Some of these changes are as obvious as allowing all gas stations to sell items other than gas, a privilege that had been extended only to stations on major highways, and an issue that may partially explain why gas prices are much higher in Italy than in other European countries. Monti has also targeted pharmacies, enacting several measures to increase competition through unregulated operating hours and a projected 5 million increase in the number of pharmacies in rural areas. Moreover, doctors will be required to prescribe the drug with the lowest cost to patients – as opposed to a private brand – unless the patient requests differently. Vested interests pose a huge issue in Italy; these are only a few examples of those archaic features of the Italian economy undergoing modernization.

While Thatcher's ideals of liberalization and competition underscore the above reforms, other aspects of Monti's reforms create clear parallels between the two. This can be seen not only through the nature of the reforms, but also through that of the popular response. Thatcher evokes the image of miners' protests and Monti has aroused similar response from lorry, truck, and taxi drivers. Major points of contention include Monti's failure to lower toll costs and the heightened cost of diesel due to his excise duty on fuel. These issues have resulted in numerous protests, some linked to the Sicilian mafia. Another reform effort for the prime minister is separating Eni – Italy's largest oil and



Percentage of board directorships held by women.

gas company in terms of market value – from Snam, which has the largest gas grid by pipelines. Eni currently has more than a 50 percent stake in Snam. This separation is intended to improve investments in Italy's natural gas infrastructure, as many say that in trying to maintain its hold on the sector, Eni limited investments. The Industry Minister, Corrado Passera, places this reform in a broader context, arguing that the government's liberalization program is planned to avoid "excluding any sector in the modernization action of this country."

However, Monti's focus, while centered on liberalization, is not solely to increase competition. He has targeted certain demographics – namely women and youth, which together he calls a "wasted resource." Italy currently has the second-lowest employment rate in Europe for women at 46 percent; the average is 58 percent, and the only country with a lower percentage is Malta. As an even more shocking statistic, in 2008, women held only 3.7 percent of all board directorship positions. This situation has cultural roots in Catholic and traditional family roles that are engrained in Italy, yet many argue that Berlusconi worsened the situation by featuring scantily clad women on his television networks and appointing former showgirl Mara Carfagna as Minister of Equal Opportunity. Along with Monti's arrival comes hope for change in this sector including tax incentives for companies to hire women as well as the possible elimination of "white resignations," whereby the woman signs an undated resignation letter that the employer uses if the woman becomes pregnant or falls severely ill. Monti also plans to encourage equality by setting equal the retirement ages for men and women. However, at its inception, this reform is taking a privilege away from women before its impact can be known. The potential overall effect of improving women's employment on Italy, though, is much more certain: increasing the employment rate of women to the European Union's average could increase Italy's GDP by 7 percent.

The employment situation for the young in Italy also needs attention. Unsurprisingly, gender disparities prevail when examining youth employment: the 18-29 year old female employment rate in Italy is 35 percent, as compared to 48.4 percent for males. Moreover, 35.2 percent of employed young females are on short-term contracts as opposed to 27.6 percent of males. Monti has tried to tackle this underemployment issue in several ways; one approach includes encouraging the young to open businesses. Youth in Italy under the age of 35 can now open a business without a notary for the price of just 1 Euro. Another action is heightening the stringency of internship laws; internships can now only last a maximum of 18 months, which would count any 6-month overlap during university. He has also instituted a tax incentive program to encourage companies to hire youth as with women.

While Monti can point to numerous reforms, the extent of their enduring effect is undetermined. Some even say that since his reforms fail to offer incentives to companies or lower taxation – the path to economic recovery – they are "surface-scratching" and lack substance. However, for the majority that do acknowledge the potential of his reforms offer, the issue becomes that most of these measures will not bear fruit for a few years; for example, the aforementioned separation of Eni and Snam is estimated to take 2.5 years to complete. Moreover, extensive changes in Italy's bureaucratic and legal structure are needed for reforms to achieve true potential. Monti is struggling to deal with provincial authorities that are under the protection of the Italian constitution that govern over town councils and below regional authorities. Monti is trying to reshape them as "empty shells" by bestowing powers to town councils and regional authorities and effectively overriding them. Regardless, these authorities create additional red tape and a bureaucracy that impedes growth. These additional necessary legal reforms might not be feasible since they would require huge efforts on the part of lawyers and magistrates not done in thirty years. These bureaucratic and legal barriers to growth are particularly serious as they have discouraged investment in Italy. However, if Monti addresses these issues, both his high public approval and firm backing by President Napolitano will offer him credibility and buy him time for the effects of his reforms to become visible. There is no doubt that Monti's liberalization attempts have the potential to make an impact on Italy, but uncertainty of the extent of this effect, coupled with the long-term nature of these reforms, render such extensive praise and a comparison to Thatcher a bit premature. However, one thing is for certain - Berlusconi need not wait with bated breath for a call to return to office as he once stated; Italy has moved on. iBR

WELL PLAYED, SWITZERLAND: THE SWISS BANKING COMPLEX

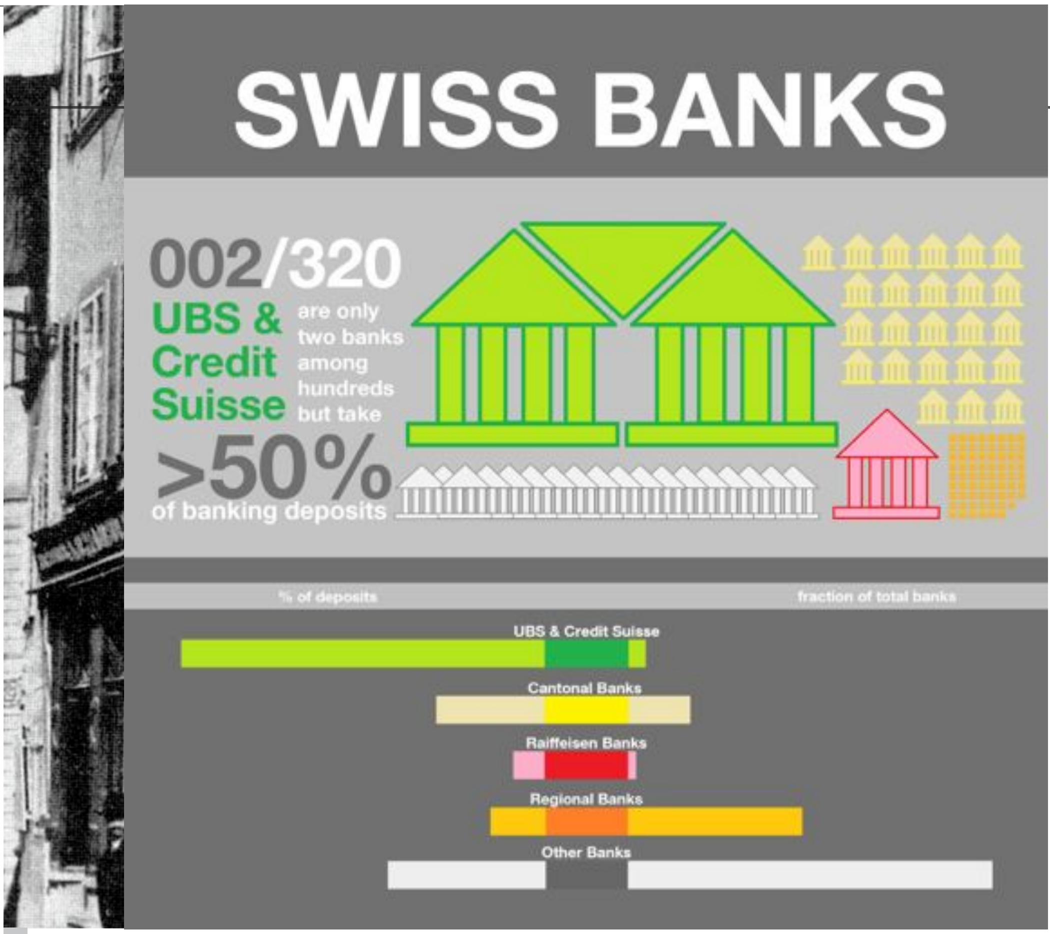
BY CARPUS K. TIN (W'15)

The foundation of Swiss banking quivered under the recent weight of U.S. demands for confidential information disclosure from UBS and other major Swiss banks, threatening to impinge upon its longstanding secrecy practices to the detriment of its clients. But while this poses a severe threat, a look into the history of Swiss banking reveals that this is hardly the first time the Swiss have dealt with such issues.

Early in the 18th century, the kings of France needed a financial system with privacy and security. They turned to the bankers of Geneva, giving birth to the international Swiss banking system. These bankers operated under the regulations of secrecy imposed by the Great Council of Geneva in 1713, which prohibited them from releasing data to anyone but the client. As market economies and government intervention in them grew more expansive, Swiss banks became increasingly attractive to wealthy potential clients seeking to dodge novelties like the income tax. The Swiss capitalized on this opportunity, relying on widespread advertisement campaigns touting the benefits of Swiss banking and the uncertainty prevalent in Europe on the brink of World War I. With the war over and Switzerland untouched, the Swiss became one of Europe's leading financial centers.

With its popularity came increasing outside pressure to divulge client information. Initial concerns of tax evasion were exasperated by the increase in German capital flowing into Swiss safes that should have been used to pay reparations following the Treaty of Versailles, against which the German government imposed regulations. Following the trend, in October of 1932, French authorities invaded the Paris office of major Swiss Bank Basler Handelsbank. Discovering numerous accounts of tax evasion by French noblemen, the French government demanded full access to the registries, while freezing all of the bank's assets in France and imprisoning two of its managers. In response, the Swiss Parliament refused cooperation and passed the Banking Act of 1934, which codified previous banking secrecy regulations and rendered it a criminal act to divulge client information. Contrary to popular belief, this federal banking act was not the direct result of protecting Jewish clients in the face of the Gestapo, but rather the result of almost two decades of foreign pressures.

With reinforced security and thus enhanced stability, Swiss banking remained a financial stronghold throughout World War II. The Axis powers consequently became dependent on Swiss banks, which financed billions of Swiss francs in credits to Germany and Italy. Despite facilitating transactions of looted



gold and jewelry from Nazi soldiers, Switzerland remained diplomatically neutral in the war and welcomed both Jewish and German clients. Immediately following the end of the war, the Swiss banking industry once again faced intense international pressure to divulge confidential information for these practices. In particular, the United States demanded that transactions between the Axis powers and the Swiss banks be released to the public. Once Switzerland agreed to lend credit to France and Great Britain, the United States discontinued their investigations. The Swiss Parliament also set aside capital for humanitarian projects and aid, earning praise from the U. S. government. The Swiss foreign minister at the time, Max Petitpierre, asserted that his "country [did] not only have a humanitarian act to fulfill but also a political problem to solve."

The years following World War II saw Holocaust victims and their descendants having limited access to the secret accounts they made to hide money from the Nazis. Many of these cases did not draw international attention until 1997, when documents dated to the World War II era were brought to public and once again, thrusting the issue of Swiss banking secrecy into international scrutiny. In the same way that they dealt with previous pressures, however, the banks offered money to abate these concerns by setting up humanitarian funds to aid the Jewish community.

As is evident from this extensive history, the one factor as consistent as Switzerland's position on banking secrecy is the subsequent pressures to divulge client information. Recently, these tensions have again escalated upon the charges of fostering tax evasion with policies of client secrecy. As a result, many foreign nations have begun to exert pressure in various ways. For example, EU clients who purchase securities with their Swiss accounts now face a withholding tax on earned interest. Countries such as Italy have offered incentives for their citizens to withdraw from Swiss banking and redeposit their money in domestic banks. The United Kingdom and Germany have both signed bilateral tax agreements with Switzerland to assist in tax evasion investigations. These acts, however, have been moderate in comparison with the actions of the United States on this issue.

In 2009, UBS, a major player in the Swiss banking industry, was investigated by the United States Justice Department for allegedly assisting American clients hide tax money from the IRS. Facing criminal charges, UBS took an unprecedented move by turning over the names of approximately 4,500 American clients suspected of tax evasion and paying $780 million in fines. The United States dropped its charges in return. Earlier this year, the Justice Department led investigations into at least eleven more banks and formally indicted Wegelin & Company, which was not as fortunate as UBS to strike a deal with the authorities.

These recent events can be viewed as a modern recreation of the 1932 Basler Handelsbank incident. Much like Basler Handelsbank, Wegelin & Company faces criminal charges and freezing of assets in a foreign nation. One differing circumstance is that the United States now has more power and leverage than in the early twentieth century; it already has a victory over UBS and it could be a matter of time before every major Swiss bank follows its example. It indeed seems that the Swiss Parliament will be the determining factor in this headlock.

Most recently, negotiations are in full swing between Switzerland and the United States, this time involving bilateral tax treaties. In early March, the Swiss Parliament passed legislation allowing Swiss banks to hand over account information of suspected American tax evaders. According to U.S ambassador to Switzerland Donald Beyer, the imposed pressures upon Switzerland will subside as negotiations proceed and represent, as he publicly asserted, "a very positive and useful step forward for the United States and Switzerland together". As the Swiss banking industry begins its reforms and recovery, banking secrecy is the first on its list of compromises. Up until now, Swiss banks have been estimated to house almost a third of all offshore funds in the world. Without the strength of the traditional banking secrecy policies, however, clients may turn to alternatives such as the Singaporean banking industry, which has adopted a confidentiality policy comparable to that of traditional Swiss banking policies to attract more clients. Despite this heavy blow to Swiss banking, the sector today has undoubtedly come a long way since the original bankers of Geneva. iBR

FROM CARAVANS TO CARS: ECONOMIC GROWTH IN THE CENTRAL ASIAN AUTOMOBILE SECTOR

BY RAM NARAYAN (C'13)

Many centuries ago, Central Asia was the heart of the famous Silk Road that connected East to West, Europe to India and China. The transportation vehicle of choice? The caravan, covered wagons laden with goods that would stretch as far as the eye could see. Today, much has changed. Central Asia is no longer a mere conduit for trade, but a major source of production and consumption itself, with the today's world's preferred method of transportation, the automobile, leading the charge.

Central Asian economies have long since emerged from their Soviet slump. 2011 was a breakout year, and 2012 is projected to constitute another solid year of growth. GDP growth in Kazakhstan was 7% in the year 2011, and the State Statistics Agency of Kazakhstan forecasts it will be approximately 6.0% in 2012. For Kyrgyzstan, the International Monetary Fund (IMF) gave growth rates of 5.7% for 2011 and 5 percent for 2012. The Commonwealth of Independent States (CIS) Committee on Statistics calculated a 6.4% growth rate in 2011 to be followed by 6.2% growth for 2012 in Tajikistan. Turkmenistan grew 14.7% in 2011 and is projected to grow 10.8% in 2012. Growth rate statistics from the Government of Uzbekistan indicate a real growth rate of 8.3% for the year 2011with growth rates of around 8.5% projected for 2012. These growth statistics, displaying continued high-level growth, are a reflection of the increasing velocity of Central Asian economies.

One part of the Central Asian boom is its continued performance in commodities markets. After the fall of the Soviet Union Turkmenistan and Kazakhstan developed strong petroleum export economies. Their abundant oil and gas, combined with their ideal "central" geographic location relative to top customers, brought substantial infrastructure development to them as oil consumers built distribution facilities and pipelines throughout the region. The Central Asian countries' increasing political importance, for reasons such as the military bases the United States has established there for supplying Afghanistan, makes them even more attractive to State investors in China, Russia, Iran, Pakistan and India, who seek to bolster their geopolitical influence. These have been leading factors in recent years' explosive growth.

But Central Asian countries have begun to be much more than mere commodities exporters and geopolitical game players. Their industrial good sectors have begun to show serious signs of growth. The most prominent market is Turkmenistan's, whose 2011 industrial sector growth of 24% is astounding. Its neighbors are not far behind; in 2011, Tajikistan posted 15.8% industrial growth while Kyrgyzstan grew at 14%. This explosive industrial growth, sandwiched between India, China, Russia, the Middle East, and Europe, is a reversal of centuries old practice going back to the Silk Road; Central Asia is no longer a mere conduit for trade, but an actual source of consumption itself, attracting the attention of companies from around the world.

One of the most compelling cases of this is the Central Asian automobile market, where Kazakhstan and Uzbekistan make up 50% and 25% of the market. Demand in these two nations has skyrocketed. Business Monitor International reports that in 2011 Kazak light vehicle sales grew by 107%. BMI predicts vehicle demand in Uzbekistan to grow between 8-10% annually from 2011 to 2016. With fast-paced urbanization combined with strong industrial output and economic growth numbers, it is no surprise that automobile demand is increasing quickly in these nations.

As local demand grows, foreign automakers and investors find Central Asia to be an opportune location for investment. The region already has major manufacturing infrastructure held over from the Soviet era, and the region can certainly be called a manufacturing center. Uzbek companies have been engaged in joint manufacturing projects for nearly twenty years, and they have handsomely rewarded multiple foreign investors in their automobile sector with dividends. With this success and the support of local governments, these markets are becoming even more open to cross-border investment and collaboration. For example, Uzbekistan recently reduced import duties on cars produced in Russia and the Ukraine, largely in order to strengthen ties with main export markets. With such favorable trade wings, General Motors opened an engine manufacturing plant in Tashkent in November 2011 in partnership with UzAvtosonoat, an Uzbekistani auto company, after their first joint venture, GM Uzbekistan, grew local sales to over 145 thousand cars, making Uzbekistan GM's 10th largest market. This is a monumental feat of consumption for a country with the world's 45th largest population and 130th place in GDP per capita. Though 90% of cars sold in the Uzbek market are still sold by local companies, it is encouraging to see foreign investors enter the market with such gusto and success.

America is certainly not the only nation developing an eye for Central Asian automobile markets. East Asian companies have found Central Asia, especially Uzbekistan, a fruitful location. 43.5% of 2011 car exports from China's Xinjiang province, which borders multiple Central Asian countries, went to Uzbekistan and Turkmenistan. Chinese companies are making a strong move into the local auto manufacturing space, with CITIC China partnering with Uzkhiprom to produce tires near Tashkent. Korean companies have likewise ramped up production, with Hyundai teaming up with Astana Motors to manufacture thousands of cars in Astana, Kazakhstan. Daewoo has a plant in Uzbekistan, with the capacity to produce 250,000 cars, for the Russian market. Russian companies have done especially well in Kazakhstan, likely a result of Kazakhstan's strong cultural ties and the prevalence of the Russian language there, holding 54% of market share in 2011. Russia's AutoVAZ announced in November 2011 that it would spend $500 million in a plant in Kazakhstan with production capacity of 120,000 cars per year.

Central Asia has benefited in many ways from these favorable developments. Foreign capital inflows and high growth rates have provided may workers the chance to enter thriving components of the economy. But challenges still remain. These programs have benefited low-skill, blue collar workers greatly, but high-skill, white collar labor still has to be sought and hired abroad. If Central Asia is to continue making serious moves into non-commodity products, it needs to develop a local labor force that can take on the challenges of 21st century production. Many of the Central Asian countries are still developing their higher education systems, with a particular emphasis on strong engineering curriculums. Until they can successfully create internationally competitive graduates, the greatest challenges of the local industrial sectors will remain unaddressed.

As these and other challenges are resolved, the Central Asia's industries, particularly automobiles, will continue to thrive for years to come, with foreign investment, strong economic growth, and geopolitical leverage driving consumption and production to this final economic frontier. Once again, Central Asia is poised to become the transportation hub of the new Silk Road with the latest evolution of the caravan, the automobile. iBR

INTERVIEWED BY DAVID VINNIKOV (W'13) AND LAUREN ZAKARIAN-COGSWELL (C'15)

MAURO GUILLEN'S TAKE ON THE PROLIFERATION OF INTERNATIONAL ECONOMIC CRISES

Mauro F. Guillen is the Director of the Joseph H. Lauder Institute at Penn, a research-and-teaching program on management and international relations. A Professor of Management at the Wharton School and a Professor of Sociology in Penn's School of Arts and Sciences, Dr. Guillen spoke with IBR on a range of global economic topics, including the Eurozone crisis, China's growth, and the future of the United States.

The Euro Crisis has gone on for several years now and it shows no signs of going away. The combination of structural issues in the Euro-Zone and weak macroeconomic recovery have prevented lasting resolutions. How likely do you think a solution is in the near future?

It depends on whether the countries involved can shift their focus purely from public finances, deficits and the current state of bond markets to strategies for accelerating growth. I'm obviously not the first to say this; people like Joseph Stiglitz and Paul Krugman have been saying this for years without much reaction from these governments. More interestingly, the new head of the IMF Lagarde has started urging a focus on growth policies in the past few months as well. The thinking behind this shift is that when the economy grows you get more taxes, and you also spend less because you have to pay unemployment subsidies, which in Europe are quite generous, and of course the reverse when the economy shrinks. I think that Europe will get out to the extent that they balance the two objectives of growth and austerity, because right now they're focused on budgets and not so much an agenda for growth. If they only think about budgets, the likelihood of success is close to zero because it will take Greece or Portugal or Spain years to get out. As the focus shifts to growth, the probability rises to a point, because the debt remains important.

So the question isn't necessarily how to get a grand debt bargain, but on how to get Europe growing again. How much resolve is there in these countries to do that? We've seen measures in the UK, under David Cameron, and in Italy, under Mario Monti, have mixed results.

There are two considerations here to balance. There is the immediate problem which is that the distressed countries don't have enough buyers for their bonds or pay too high interest rates, and then there's the 2-4 year concern which is to get the economy going again. But there's another thing in that we all agree that the markets have become very influential because they give very clear signals of what they see going on. And they're starting to give clear signals that they want European leaders to start thinking about growth; up to now they've been obsessed by debt, and thus so have European leaders. With Cameron people had a clearer commitment to "small government" concepts, but in Europe a reduction in public spending is going to lead to sharp drops in aggregate demand. With European and world credit markets still weak despite central bank interventions, it seems unlikely that private demand will step in to fill the gap in, especially with banks holding on to cash and preventing small and even large businesses from getting capital. But it'll be markets that put on the pressure as they raise their voices about where growth will come from and not just budgetary concerns.

What happens if these discussions don't succeed? There used to be concerns that the Euro would come apart, but now a "status quo" stagnation seems more likely.

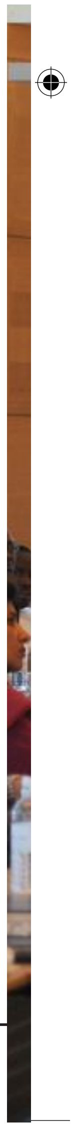
There are two schools of thought here. One is that if things continue to go down, with neither Greece nor Portugal figuring out their problems and Spain and Italy continuing to have their problems, someone will collapse and Germany will come to the rescue. Germany is being tougher with conditions, making money conditional and ruling out a straight bailout. But if push comes to shove and things start to collapse, Germany won't want to be at the center of chaos. With the European Union's 13 new members east of Germany, Germany is both the economic and geographic center of Europe. As an economy, country and society Germany cannot afford to have these countries around it breaking down around it. I think there's some element of truth to this. The other school of thought is that the Germans will continue to be tough, and the Europeans will say that the strong fiscal union needed here will take years to build and that markets won't have the patience for it. It might not happen at all, but if it does it won't happen tomorrow. You would see the Euro-zone contract from the current 17 members down to a smaller number without the worst offenders. I think that has a probability of happening, but it depends on how bad things get. If Europe has trouble at the same time as the emerging economies, who import European machinery and know-how, it gets much harder. Brazil is already have trouble; last year it grew at 7-8% and this year the new rate was 2.7%, which is a dramatic slowdown and nothing for an emerging economy. China has been coming down from 11% growth to 7-8% growth (depending on who you believe), and India is down too. If that continues, where will the Europeans sell? The more these problems coincide, the more likely that the Germans basically get together with the Austrians, Dutch, Swedes and 3 or 4 other countries and create their own new currency. But things do seem to be improving, so Italy and Spain just get rescued and people realize the future of Europe doesn't hinge on Greece; the Germans will subsidize their exit from the Euro, and it will be good for them since they can devalue and be competitive again. In the past, Greece would drop their currency by 30% and be competitive again. But the inflexibility of the Euro, combined with the fact that the past 12 years have seen flat productivity in the Mediterranean countries (while Germany's higher base productivity grew quickly, widening the productivity gap), makes monetary union very hard to keep up.

Greece actually announced a restructuring of its debt recently to positive reactions from markets. What does this resolution mean? Do speculative concerns shift elsewhere now?

Speculators are going to keep a close eye on different indicators to see where countries like Portugal and Spain go from here. But psychologically, although the Greeks probably have high unemployment and don't grow for the next 10 years, the problem quiets down and everybody feels better. The best piece of news would be for Italy and Spain to start getting out, because then people will realize that the problem is 1 or 2 relatively small economies that won't sink the Euro. But if Italy and Spain continue to struggle, even with the boost from Greece not imploding, it might be enough since their economies are 11 and 8 times bigger. They're making reforms in Italy, but it takes time for those things to increase economic growth. These countries are likely to announce that they've entered into recession next quarter, confirming fears of a double-dip.

There were fears that Greek credit default swaps [bond insurance] would not be paid out, although they ultimately were. Why has that been such a concern?

A disorderly Greek default would have had systemic risk in two areas. One is banks in France and Germany, and the other is through these derivatives. Though this is a Greek problem, many banks in those two countries have large Greek exposure, and stress on them would pres-



sure a lot of other countries, including United States banks who insured them. As for the derivatives, no one really knows how much exposure there is since a lot of it is OTC. There are estimates from 10 to 15 billion Euros, which would be relatively nothing, to 200 billion or more.

We've seen the consequences of what happens when big financial firms go under, and we wonder if firms like Societe Generale or Santander are on the bubble if things get worse.

Those are two examples that are very different. Deutsche Bank, Soc Gen, these banks have one advantage over the Italian and especially the Spanish, Irish, and Greek banks and that is that they are not exposed to a real estate bubble. But they are exposed to Greek and Spanish debt, so for the French and German banks, I think it's mostly that they are exposed to sovereign debt. The most important problem for the Spanish banks right now is the exposure to the real estate bubble in Spain. They have all these mortgages with a default rate of six percent, which is already high. If the economy doesn't improve, it will keep on going through the roof. And moreover, these banks had real estate divisions, so they're also real estate developers and they have housing stock. On top of that they have bad loans to other commercial developers, so it does not belong to only households. It belongs to commercial developers, real estate developers, and also their own real estate operations. So it's a different problem. The German banks, for example, don't have a real estate problem, because there was no bubble in Germany. If you take a look at housing prices in Germany, they have been flat for the last twenty years. In Spain, they were going up by twenty percent each year for twenty years, with one little interruption ten years ago. So the problems with those banks in Europe are very different depending on the country. And when you look at Spain, there is the system of Cajas, which are the smaller, community banks that were a big concern earlier on in the crisis. And those concerns remain for the same reasons; for the exposure to the real estate bubble and less capital strength than the private banks like Santander. The big advantage of Santander of course, is that right now it is getting more than two thirds of its profits from outside of Spain. It is getting forty percent of its profits from Brazil and twenty percent from the U.K., they have a presence in other Latin American countries. Let's say that 25 percent of the bank is exposed to Spain. It is not 100 percent. For savings banks like Cajas, it is 100 percent. But the savings banks have been having trouble in Germany also, but not because of real estate. WestLB, the largest savings bank in Germany, was just liquidated because they invested in derivatives, etcetera, and they went wrong.

And how about Spain's Iberian neighbor Portugal?

Well Portugal is smaller than Spain and has more problems with competitiveness. Spain has grown over the last ten years, and Portugal has not grown that much, so even before the crisis Portugal was not doing that well. They have more problems than Spain in the longer run, and of course the markets know that. That's why the spreads for Por-

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tuguese bonds have been higher than for Spanish bonds. At the end of the day, Spain and Italy have had to pay higher interest rates over the last few months, but they have been able to place their bonds; in fact, they've been oversubscribed. There are more investors willing to buy Spanish bonds at such high interest rates than the government needs to sell in order to fund its existing stock of debt.

Recently it has been under discussion that China might be asked to assist in the situation.

China is already doing that. China is accumulating a lot of cash, obviously it has been for some time, and right now I think the figure is 3.4 trillion dollars in foreign reserves. All countries have reserves since they always need money on hand, so about 70% are held in dollars or dollar-denominated securities like treasury bills. 25 or 26% in Euros, and then the rest are Yen, Swiss franc, sterling, but it's mostly in dollars and Euros. Over the last ten years the dollar is shrinking and the Euro is going up. But if you go to China, the indications are that China is already more into Euros than any other country in the world. The Chinese understand that they need to diversify because the dollar is a relatively weak currency right now. Just think about it: the Euro is still trading at 1.36 to the dollar even with the whole mess in Europe. The Euro should have lost a lot of value relative to the dollar. In my opinion, the only reason that it has not lost value is because the dollar has its own weaknesses, the biggest being, of course, the current account deficit here, meaning that we import much more than we export, putting a lot of downward pressure on the dollar. And at the same time, you see countries moving away from the dollar, meaning that the dollar is becoming less of a reserve currency than it was, which also puts downward pressure on it. The dollar-Euro exchange rate has fluctuated, but it's more or less at the same level as it was four or five years ago, in spite of the mess in Europe, because both currencies are weak. So relative to each other, they stay more or less stable, plus or minus 7%, which is a lot, but not plus minus 30%. If the dollar were strong now, the Euro would have lost 30% of its value, which by the way, would have been good for the Euro. Then, they could export more into the United States. That's another trouble in Europe: they would prefer a slightly weaker Euro, but they can't have it, because the dollar is also weak. Remember, the Eurozone is more or less balanced in terms of trade, because Germany has a big surplus and then you have a number of countries with a big deficit. But the U.S. has a huge deficit. I almost never read this in the newspapers but it's very important to keep in mind.

What would an actual Chinese "bail-out" look like? What kind of actions can they take?

I don't think they would need to sign an agreement or anything of the sort, but here's the problem from a discussion back in November. The Chinese want something in exchange. They are taking advantage of the situation, and why shouldn't they? They know they have the cash and they know that others have a problem, so they could just go to the markets in Europe whenever there's an auction for big bonds or German bonds or Spanish bonds and buy. They do that, but they are to do more of that and want to do so because they want to hold more in Euros and less in dollars. The problem of course, is that they do not want to do it for free. Back in November, the rumor was that they imposed two conditions just to go bid, that would probably have resolved the problem in the short run. Number one was that Europe would support China being treated as a developed economy at the WTO, which means it would be much harder to accuse them of trade violations. The second condition was that although Chinese investors, companies, and government would buy bonds, they would also be allowed to buy equities in Europe, especially in France. That would be a problem and is when the whole thing collapsed. Especially if we are talking about infrastructure, this is not discriminating against the Chinese. All the European countries have privatized their infrastructure firms over the last twenty years. So now you are going to have a state-owned Chinese firm take over the firms that you privatized? It undermines the whole program of reform and privatization that Europe has been implementing for twenty years now.

What about the IMF?

Well, the IMF wants to resolve the problem, and there's a European who understands the problem well at the head of the IMF, LaGarde. But the IMF can only go so far - it can be a broker. It has a lot of power when we're talking about a developing country that has no other options, but there are very powerful countries in Europe. Even Italy is under some kind of pressure; it's a big economy. We are not talking about rescuing Ghana, we are talking about rescuing Italy or even Greece. Not only that, you have even stronger economies like Germany, and the IMF cannot just go in and fix the problem like they do in Latin America or Africa.

Could China then insist on more representation in the IMF as a bailout condition?

Well let me tell you the story. China is showing up and saying "We would like to play a bigger role in the World Bank or the IMF." And of course, then they have to write a bigger check. But what do they care? Then of course, the people running the IMF or the World Bank say that if you're writing a check for $100 billion, then you'll have 25% voting power, because your contribution will be the same as that of the U.S., which the other countries do not want China to have. The problem here is that the world has changed. All of these things were set up at the end of World War II. There was the U.S., there was Europe, Japan did not really exist. And China literally did not exist. Latin America was tiny, Africa did not exist either. Fast-forward seventy years later, and we have a totally different situation in the global economy. Emerging economies already make up more than half of the world GDP. These institutions are totally outdated. But the problem of course is that China cannot play a constructive role in the situation because it does not have a convertible currency. China can only intervene via dollars or Euros, but not with its own currency. This is highly anomalous and I think we are in for a long period of instability until China manages to make reforms so they can convert their currency, because we've never been in a situation where the largest economy and largest trading power in the world does not have a convertible currency. The UK was dominant for a long time, and the pound sterling was the global reserve currency. The U.S. becomes dominant, and the dollar replaces the pound. China is already the biggest trading power in the world, but it is as if it doesn't have a currency. They use their money in China, but nobody else can use it for international transactions. In order for them to have a convertible currency, they need to reform their financial system. The system is obsolete and is not prepared for that. They need to open up and remove control. They need to have sophisticated financial regulation and liberalize capital flow. They need to make sure the banks are not going to collapse before they develop an internal accounting system. The banking managers themselves need to understand how all this works. China thirty years ago was a closed country. They have changed a lot of things, but mostly in manufacturing, not in the financial sector. That is going to take them five, ten, fifteen years. For me, this is a fundamental problem; you cannot run the global economy in a situation in which the big elephant, the big dragon, does not have a currency that others can use. It is a serious mismatch.

Do they have to have a desire to go and fix it?

Of course, because now they rely on the dollar and Euro, and they would prefer to trade with others in Yuan. They are signing bilateral agreements in Yuan, but they are very small and only with ten or twelve countries, such as Singapore, Hong Kong, Argentina and others that import and export extensively with them. But these are very small transactions; as a percentage of Chinese trade, it's nothing.

These limitations in having a convertible currency obviously imply a lot of problems. Many accuse China of purposefully under-pricing its currency to preserve export competitiveness and are putting pressure on it to stop that practice. How likely is China to respond to these appeals? What would be the consequences of it accepting?

Rapid currency appreciation would of course put a lot more pressure on them. But at some point they need to stop competing on just purely cost. They know this and have been making adaptations; they're investing very heavily in technology and education. They're investing in all the right things so that they are prepared for the time when they are more like Germany. Eventually, they have to compete with sophisticated goods. China has done a very difficult thing over the last thirty years, which is to grow fast and raise people out of poverty. Now I think they have to make a transformation that is even harder. One part of that transformation is the financial market and banking system that we talked about, and the other one is to shift towards a higher value-added real economy.

China has this reputation now, for better or worse, that it's not able to adjust its exchange rate and that, because of that, it's having competitive advantages. So there's a lot of desire in the United States and in other countries to undertake retaliatory action. It's something that

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a lot of presidential candidates have talked about doing, and there's a lot of support within the United States. How likely would such efforts be in successfully helping the United States compete with China?

Well I think that they can be successful, but there's too much focus in the US on what other have got to do. The U.S., over the long run, has several problems to solve here. One is education at the primary and secondary level. We have an increasing problem with funding schools, school performance and kids dropping out. In standardized tests, American students do very poorly compared to those from other countries. The United States has to fix this to ensure that over the long run - 15, 20, 25 years - it remains competitive. We have the best universities but some of the worst primary schools. Another problem is the U.S. and its trouble meeting its energy needs. There's got to be a solution to the dependence on foreign oil. It has been an issue for the last 40 years. It is a very difficult issue, but we need to be more creative when it comes to new energy policy and considering more options. That would help us innovate and get rid of that dependence.

A big change that you're seeing with the Chinese now is the reversal of traditional capital flows. Money used to go into developing these emerging economies, but China actually exports capital now. They're buying assets in Africa, Latin American, even in developed markets like Europe and the United States. But people aren't necessarily comfortable seeing Chinese firms, often state-run, control things. How do we adjust to this new reality?

Everyone is adjusting. We talked about it a little bit earlier. The issue here is that China and other emerging economies like India and Brazil grow very quickly but only growing along one dimension, as producers of things. They need to become more consumption-oriented and lead growth there as opposed to export growth. They need to, as we were saying earlier, manage their financial transition. You also asked earlier about their role in multinational organizations like the IMF. They need to assume more responsibility and more voting power. There are so many things out of whack because that one dimension, the country's production, has grown so much while their consumption hasn't and their financial role still has to be defined. We have to deal with it because otherwise we have a very unbalanced global economy.

So does that mean that we should be more receptive to Chinese investments within these places?

Oh, sure! There's no other way around it. China has a surplus, we have a deficit. In the absence of interplanetary trade, let say between Earth and Mars, if there are countries in the world that have surpluses, that means there are countries that have deficits. So money must flow from one to the other to cover those gaps. That's the way it is, at the end of the year planet Earth is planet Earth. So China is a very important part of this picture. The U.S. has been the dominant force for 50 years. I don't think the U.S. is going to be displaced by China, but they're just going to have the U.S. and China be very important economies. And then geopolitics depends on whether they get their act together or not.

One of the topics that you talk a lot about is globalization. The past 20 years have seen some pretty tremendous gains in terms of opening up the world, bringing it closer, making it smaller. I wonder if the past 5 years have changed the trajectory in any way or even reversed it.

Well, I think that it is a constant flow of changes, some of them moving in certain directions, others moving in just the opposite direction. It's two steps forward, one step back, one step sideways. Going back to my overall theme, I think what we have in the world's situation is a lot of moving parts, things out of whack, economically, financially, politically. We have a lot of unsettled political situations, especially in the Middle East and North Africa. China is politically interesting place right now because of the problems you have in Tibet and western China. Globalization is not something that takes us to a particular place, that makes changes that are coherent and unidirectional. It is a very complicated and very haphazard process. Human society and economies have become so interconnected in real time. I call the nature of the beast very complex and very uncertain. We cannot fully anticipate what going to happen next, and the last four years have been very good demonstration of that.

Do you think it's possible that that governments become more protectionist and, in that sense, reduce globalization?

There was a lot of talk about that in '09 and '10. My hope is that politicians remember that the Great Depression of the 1930s was made worse by protectionism. I hope that we can avoid such taxation now. There are many tensions like the Chinese currency issue. The U.S. has adopted some protections, as have the Europeans. So, the mood and condition is there, I just hope that there's no vision on the part of the world's political leaders of going down that path; it can be a disaster.

One of the most popular careers for Wharton students continues to be financial services, despite the change in character of global finance. As a member of the board of advisors to one of Europe's largest savings banks, La Caixa, we'd like to ask for your comments on how the financial industry is going to change for new Wharton School graduates.

Well, in many ways, and not only investment banking, which is a different landscape in terms of jobs. I think a trend is going to be, instead of having big employers come to campus to recruit, we're going to have more boutique investment banks. I think private equity is going to be more important as potential employers look for Wharton graduates. And let's not forget about the emerging economy. You go to the commercial or investment banks or private equity, and they're retreating in Europe and the United States, but not so in the emerging economies. There are lots of opportunities in China, the Pacific, in India, in the Middle East. A lot of grads are going to take jobs over there because there are going to be very nice opportunities that won't be available in Europe or the U.S. Both the segments and the geographies will change.

Should some students start seeing opportunities outside traditional financial centers, such as New York and London?

New York and London will remain as the dominant financial centers for a very long time. But at the same time, we're going to see Sao Paulo, Shanghai, Dubai, Mumbai emerging as more important centers. It's going to take more than a few years to become as important as New York or London since they are already so entrenched.

How should students prepare for these changes?

Psychologically, since many of the jobs might not be in the U.S., the U.K., or Europe, but in different economies. And also by becoming knowledgeable about those parts of the world you want to operate in. Obviously, we won't all work there, but that's where the world is going. iBR


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