









Introduction

First-hand Perspectives on the Global Economy

In this special report, students from the Joseph H. Lauder Institute of Management & International Studies provide analysis of some of the most tantalizing economic, business and technology developments around the world.

The articles offer new perspectives on the ever-changing global economy, including the growth of consumer markets in Brazil, Egypt and China, and the impact of the crisis on French luxury goods. The green economy's growth worldwide is captured in articles on organic products in Germany, solar energy in Senegal and Japan's eco-tech industry. The rise of the Russian gambling industry, sustainable tourism in Egypt and high-end gastronomy in Spain illustrate new frontiers in the leisure business. China's coming of age is captured in articles on the development of its venture capital and mutual fund industries, enhanced awareness of social corporate responsibility, and the growth of second- and third-tier cities. New developments in infrastructure and financial services are reflected in pieces on the mobile Internet in Latin America, the rise to prominence of Spanish infrastructure management companies, and a new form of transparent, customer-driven banking.

Taken together, the 16 articles offer perspectives on a range of dynamic economies and identify existing opportunities for conducting business within specific cultural, political and institutional contexts. The articles are part of the Lauder Global Business Insight program.

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Bionade Puts the Fizz Back into Germany's Beverage Market

Some say imitation is the sincerest form of flattery. If so, Dieter Leipold, inventor of the organic lemonade Bionade, should be feeling very flattered. Since the Bavarian brewer concocted a healthy soft-drink alternative in his living room some 20 years ago using lychee, elderberry and other high-quality ingredients, a bevy of similar drinks have hit Germany's store shelves. After many ups and downs, Leipold's environmentally friendly, socially responsible family-owned enterprise has become a national business phenomenon which could soon give global soft-drink makers a run for their money.

In 1985, Dieter Leipold, master brewer of Privatbrauerei Peter KG, was in search of a solution. His 160-year-old, family-owned regional brewery in Ostheim vor der Rhön, a small rural town in Bavaria, was perilously close to bankruptcy as larger, cross-regional competitors expanded rapidly. Complicating matters, his company's market opportunity had been severely limited for many years because its production facilities were located less than two miles from the border of East Germany. Leipold's back was, quite literally, against the wall.

To address the crisis, Leipold committed himself and the resources of his family's enterprise to developing a new product using the knowledge, skills and reputation the company had forged as a *Braumeister* (or master brewer) over many generations. He firmly believed that the soft-drink segment of the beverage market needed a healthy, refreshing option that not only tasted good but also was good for consumers.

After researching "bio" (or organic) soft drink companies, he saw he would have to overcome a number of major research and development issues to develop such a beverage. Ultimately, his experiments, which he conducted in the comfort of his living room, yielded an alcohol-free product that required raw materials and production processes virtually identical to those his family had been using for over a century to brew beer. Leipold gave his patented invention the suggestive name Bionade, the lemonade made from 100% controlled organic products using an unusual combination of herbs, lychee, elderberrry and other flavors.

A Work in Progress

Bionade has since become both a business and a cultural phenomenon in Germany. The company has grown exponentially, selling more than 200 million bottles in 2008. With an incredibly high brand awareness (over 91%) and market penetration in Germany, neither Leipold nor his stepsons (and successors), Peter and Stephan Kowalsky, were surprised that other firms have

copied the product, with competing brands such as Bionaris, Ökonade and Maltonade coming to market. However, Bionade's success did not come without a number of significant hurdles.

Bionade was officially founded in 1994 when Privatbrauerei Peter filed a patent (valid until 2016) for its fermented lemonade, after nearly 10 years of development. Consumer demand for organic products in Germany and elsewhere was not yet ready for mass-market success. In addition, years of research and experimentation with different methods of production and flavor combinations left the brewery operating at a loss for nearly a decade. Even winning more than a million Deutsche Marks (about \$1 million) in the lottery in 1999 was not enough for the family to repay the debt it had incurred while developing Bionade.

The unwavering belief of Leipold and his stepsons in a healthy soft drink using organic ingredients and environmentally friendly business practices was ahead of its time in the 1980s. Their faith in the product helped get the company through the first challenging decade of development and the first few years of mediocre operating results. According to Peter Kowalsky, Bionade's current CEO, "at the beginning, my stepfather developed the product out of moral and social reasons. He wanted a healthier, higher quality soft drink for everyone, not just for children or adults, but for everyone. This belief is what the company was founded on and I firmly believe it is why we are successful to this day."

Going Green in Germany

Germany's cultural, economic and political landscape also played a role in what eventually led to the overwhelming success of Bionade's organic, environmentally friendly product and brand. Working in Bionade's favor was Germany's reputation for being among the most forward-thinking nations when it comes to environmentally friendly business practices. Although the political

and cultural influence of the green movement on Germany's business environment and on consumers' tastes was not yet apparent when Bionade entered the market, the movement's perception and its impact on the economy and politics have accelerated dramatically over the past decade. They are now evident across many aspects of German society, as shown by the proliferation of "bio" products. But none of this happened overnight.

The negative effects of industrial pollution on people's health in Germany were already evident by the mid-19th century. However, it was not until the early 20th century that the first formal nature conservation organization in Germany, the *Deutscher Bund Heimatschutz*, was created. Unfortunately, this group was interested more in conservation than in environmentalism as we know it today, focusing on traditional architecture, folk history and art. The group even opposed the construction of a hydroelectric power station on the Rhine due to its deleterious impact on aesthetics. It took several more decades before the German environmental movement began to have a profound impact on society.

The turning point in Germans' attitude toward the environment came during the 1950s and 1960s. The green movement relied on the student movement of the 1960s, which transformed German society with its demands for reform in political, social and academic arenas. But the green movement did not enter the political arena until the end of the 1970s. As Ralf Sitte, chief environmental adviser for the country's Social Democratic Party notes, "The atomic energy discussions in the 1970s were heated and moved the population to get involved with the political discourse."

Die Grünen – a coalition of civic groups, environmentalists and peace activists – became the first official green political party in Germany. The different perspectives of these various groups

converged in a political program based on the "four pillars" of ecological wisdom, social justice, grassroots democracy and nonviolence, which other green parties around the world later adopted. The Green Party participated in its first election in 1983 and received 5.6% of the votes, above the 5% threshold needed to enter the Bundestag, the German parliament. The movement continued to develop throughout the 1980s, when a series of mass demonstrations against nuclear energy and more generally, for peace, swept through Germany. The demonstrations – stemming from the Chernobyl disaster, along with U.S. and NATO nuclear missiles located in West Germany – strengthened the party's position, and it earned 8.7% of the votes in the 1987 election. Following the German reunification, it merged with the former East German civil rights movement, Bündnis 90.

The new alliance allowed the party to enter its first red-green coalition on the national stage. The coalition served two terms – from 1998 to 2005 – during which it achieved some of its goals, such as declaring national independence from nuclear power by 2020. The coalition also introduced incentives to promote sustainable economic growth alongside green policies for energy and climate change. During this period, at national and international levels, the Greens played a key role in developing Germany's reputation as a major proponent of sustainable energy development.

Since 2005, with the election of a new administration, the *Bündnis 90/Die Grünen* has been relegated to the opposition. Nevertheless, its 51 members in parliament (out of 614 members) are still the largest representation of ecological interests in any parliament in the world. As Sitte points out, "The Green Party in Germany has had a very strong influence in forcing the country's more conventional parties to develop their own ecological expertise." In the last 20 years, the country's green movement has grown from a culture of protest to a viable

political force. Green parties have sprung up in other countries as well, although they have not been able to match the political influence attained in Germany.

What's more, few, if any, other countries have seen the rapid proliferation of environmentally friendly business practices found in the *Mittelstand*, Germany's small and mid-size enterprises (SMEs). Bionade, which has grown quickly in recent years, is a vivid example of the individuality that allows German firms in the *Mittelstand* to not only flourish but also remain true to an ideology that often includes environmentally sound business practices.

Against this backdrop, the *Mittelstand* has been an influential force in Germany in general. The country's SMEs are responsible for nearly 40% of its GDP, and these companies represent 99.7% of all German businesses. A typical *Mittelstand* firm employs fewer than 500 people and has annual revenue of less than €50 million. It employs more than 70% of the German workforce and accounts for close to 50% of all the added value produced in the national economy.

The enormous impact of this cluster of enterprises is indisputable. Most of the substantial impact of German SMEs on the world economy and on Germany's environmentally conscious movement has been made possible by the staunch independence of many of these firms, as demonstrated by Bionade. Among the traits that best characterize the Mittelstand is the strong desire to remain independent and keep a low profile. As Greg Nees writes in his book, Germany: *Unraveling an Enigma*, one of the most important characteristics of a typical Mittelstand company is that "keeping tight control of the company...ranks as [a] higher priority than simply making money." As a result, owners rarely chase rapid expansion or personal wealth by taking their companies public. Often, these companies represent a way of life for

the *Mittelstand* business owners, and the owner's entire family relies on the company for not only its income but also its identity.

Bionade's Breakthrough

The timeline of Bionade's success clearly demonstrates the need for patience and independence. From the launch of its first product in 1995 until 1999, BIONADE's production remained constant at 500,000 bottles per year, even after the company reduced the price by 31%, from DM1 to DM0.69 (from US\$0.74 to US\$0.51). Between 1999 and 2003, the number of bottles sold increased from one million to 3 million a year, with prices to distributors ranging from \in 0.39 to \in 0.49 per bottle (from US\$0.57 to US\$0.71).

As consumers became more familiar with the beverage, and their appetite for organic products as well as support for companies employing green practices in Germany took off, Bionade's sales more than doubled in 2004 to seven million bottles. The company's production skyrocketed to 20 million bottles in 2005, 70 million bottles in 2006 and 200 million bottles in 2007 before leveling off. During the expansion period, Bionade increased prices, to €0.69 a bottle (US\$1.00). Because of high production and expansion costs, BIONADE markets its beverages at a slightly higher price than, say, Coca-Cola, taking advantage of the price elasticity arising from the brand's appeal and growing domestic demand for organic products.

One of the most extraordinary aspects about Bionade's success is that it was achieved with minimal conventional marketing. Asked about the key to success, Peter Kowalsky cites the power of the media: "The press and consumer word-of-mouth marketing made us successful, not traditional marketing." Bionade's "pull-marketing" strategy proved effective in responding to the increase in demand for organic, healthy, lifestyle-oriented products. The strategy allowed the brand's reputation

to speak for itself. Meanwhile, the company has tried to expand gradually into markets where there are more adults willing to try new things and who value organic products from environmentally conscious producers in, for example, Western Europe and the U.S.

The Bionade story is extraordinary in terms of its rapid growth over the past few years. However, the firm's independent nature and ability to patiently remain true to its ideology through difficult times are quite common among Mittelstand companies. This is also one of the main reasons why the business environment has been able to embrace the fundamental mindset that the green political movement has brought to the German economy. In many ways, Bionade is a typical German *Mittelstand* company – a family-run firm that fiercely maintains its independence in order to overcome challenges itself and avoid relying on outsiders for assistance in times of trouble. This independence also allows the firm to make business decisions that reflect its belief system, even when such decisions are not necessarily ideal from a profit standpoint.

For a company that claims that its ideology and culture mean as much as its income statement, being an environmentally friendly, socially responsible and community-driven enterprise is not simply a matter of marketing for Bionade, but rather the company's *raison d'être*. For example, Bionade purchases its electricity from Austrian hydroelectric power plants, which are more expensive than local alternatives but reflect the company's environmentally conscious ideology.

Bionade controls all its raw materials purchases, always buying directly from organic producers and avoiding intermediaries. This allows it to pay suppliers more, in accordance with the company's own definition of fair trade principles. As CEO Kowalsky explains, "We are always very careful

when selecting the flavors we introduce, the raw materials we choose to work with and how we acquire them. From the beginning, we wanted to be sure that they were easy to purchase, inexpensive and could ultimately be acquired on a larger scale, always using fair trade practices."

The ability to purchase raw materials on a large scale is much like the production capacity of much larger competitors in the carbonated beverage industry. However, despite the similarity in its potential for scale, Bionade differs greatly from its competitors with regard to costs. Its raw materials often cost five to 10 times as much as those of a typical concentrate producer. Its concentrate is mixed with water on a ratio of one to 10, whereas typical concentrates use a ratio of one to 1,000.

Nevertheless, Bionade is willing to maintain this business model because the company states that the quality of its ingredients is more important to its long-term success than improving margins by straying from organic, environmentally sound methods of production. As Kowalsky explains, "If we were in this business only for profit and personal gain, we would have abandoned our fair trade and quality-ingredients principles long ago. It is not just about profit for us. We want to sell products that we are proud of and represent our family for generations to come."

The company has its sights set on more than just the German market. Countries that are interested in organic products and that are consumers of soft drinks are of particular interest. Bionade has already initiated its first venture in the largest market in the world, the U.S., with production facilities being built in Iowa and distribution and sales aimed at New York, Atlanta and San Francisco.

Whether the popular green movement in Germany that has helped create and sustain Bionade's phenomenal success over the past few years is only just beginning or has reached its pinnacle remains to be seen. However, it is clear that the green movement and its effects on the German business environment have facilitated the success of this *Mittelstand* representative. As Bionade expands around the globe, only time will tell if the company – with its higher cost structure; passion for producing high-quality, environmentally friendly products; and dogged ideology – will succeed as it enters a new phase of competition against the beverage giants.

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Economic Crisis and New Consumers: Challenges for a French Entrepreneur in the High-end Fashion Industry

The global economic crisis of 2008 shook the foundations of the luxury fashion goods industry worldwide. As part of their reaction to the downturn, industry players responded to new consumer demands and, in the process, redefined the business of luxury. To appreciate fully the significance of these changes, Knowledge@Wharton looks at their impact on a small, independent label.

The global economic crisis of 2008 shook the foundations of the luxury fashion goods industry worldwide. To weather the storm, industry players responded to new consumer demands and, in the process, redefined the business of luxury. To appreciate fully the significance of these changes, and to see how these shifts have been translated into tangible challenges and opportunities at the micro level, consider their impact on a small, independent label.

In Paris, France, handbag designer Philippe Roucou, 45, has worked hard to guide his business through the crisis, which he calls "the worst recession of his lifetime." Since 1992, the French creative artist and business entrepreneur has developed the Philippe Roucou business internationally, steering his company through numerous challenges. He currently sells around 1,500 handbags worldwide per year, generating approximately €1 million (\$US 1.4 million) in annual revenue.

Roucou owns a studio in the upscale Marais neighborhood of Paris and a boutique in the trendy Bastille district. His core product line consists of high-end handbags sold primarily to women. The high-end segment in this industry comprises the product category just below the luxury threshold. The distinction between these segments is based on both the final price charged to consumers and the standards of craftsmanship and material quality. Philippe Roucou products retail between €500 and €700 each, while luxury companies' retail prices typically exceed €1,000.

Shorter-term product cycles characterize the highend niche segment compared to the luxury category, in which styles and themes tend to last over a longer period of time. Consequently, Roucou's handbag designs change significantly each season. This poses a considerable challenge, since Roucou must understand and incorporate the latest retail customer and individual consumer trends as well as forecast preferences for the following season. Since Roucou's average consumer will buy a new handbag every six months, he must adapt his product designs continuously to remain current and ensure customer loyalty. However, he says that he considers himself an artist first and a businessman second, and tries to balance an awareness of consumer trends with his own artistic vision.

To bolster his revenue stream and enhance brand recognition, Roucou opened a Parisian boutique in 2004 that now accounts for roughly 20% of his global revenue. Nevertheless, he sells very few of his handbags directly to consumers, preferring instead to sell through distribution partners. To seek out these opportunities, he works closely with agents in Singapore, London, Paris, Hong Kong and Tokyo, each representing a critical link with his overseas customers. The agents establish relationships with stores in the major metropolitan areas where Roucou currently has a presence, enhancing the "Philippe Roucou" brand name by selling to chic retailers and boutiques. Since Roucou produces in France, each handbag carries the mark "Made in France," which commands notable respect in foreign markets. He also relies on his agents to show his handbags at marketing exhibitions, where buyers from stores such as Bergdorf Goodman and Harrods select items for retail sales.

According to Roucou, these agents also facilitate his understanding of non-French consumers, among whom he has enjoyed the strongest growth and whose purchases represent the overwhelming majority of his annual revenue. Before launching each season's collection, he verifies that proposed prototypes are adapted appropriately for the markets in which he is selling.

Historically, Roucou has enjoyed the most success in Japan. Sales in Tokyo represent approximately 75% of his global revenue, compared with 20% sold through his boutique in Paris; the rest of his handbags are sold in London, Singapore and Hong Kong. Because of the ongoing Japanese recession, financial results in Tokyo have deteriorated over the last five years and have also been adversely affected by the current global economic crisis. Nevertheless, Roucou continues to find his most loyal and trend-conscious consumers in the land of the rising sun. These are young professional women, between 20

and 30, who actively follow the latest fashion styles and belong to an elevated socio-professional class. In contrast, Parisian consumers are typically older, less trend-sensitive and more conservative in their tastes.

To some extent, Roucou's success in Japan reflects the nature of the market there. According to Fortune magazine, "94.3% of Japanese women in their twenties own a Louis Vuitton item." Roucou says that the educated nature of Japanese consumers helps to explain why his brand has been received so well in Tokyo. His mark bears an exotic French-sounding name with the high-quality associations of the "Made in France" label.

Enter the Global Economic Recession

As the global recession picked up its pace during 2008, consumers worldwide reined in their spending. Conditions in the luxury and high-end goods markets have continued to deteriorate.

According to Bain, the €170 billion (\$US 246 billion) luxury goods sector is expected to shrink by 10% in 2009. Nearly all key brands have felt the crunch, posting weak financial results throughout this period. The 2008 holiday season was commonly viewed as an industry low point, with Lew Frankfort, chairman and CEO of Coach, calling it "the most difficult season our company has experienced during my 30-year tenure."

Confronted by a markedly changed industry landscape, many companies have reassessed their business strategy. For example, French luxury house Louis Vuitton scrapped its plans to build a Tokyo flagship that would have been its largest store in the world. American firm Liz Claiborne has chosen to focus on seeking partnerships for growth and avoiding stand-alone risks.

The industry now feverishly hopes that the recessionary pressures will soon abate and that consumers will once again buy as they did before.

However, evidence suggests that even when the recession does end and consumers regain some of their spending capacity, a new mentality rejecting conspicuous consumption will remain the standard. In an interview in *The New York Times* earlier this year, Karl Lagerfeld, the designer for Chanel, echoed this view, saying that "This whole crisis is like a big spring cleaning – both moral and physical. There is no creative evolution if you don't have dramatic moments like this. Bling is over. Red carpetry covered with rhinestones is out. I call it 'the new modesty.'"

In response to this dramatic shift in consumer attitudes, luxury and high-end companies have sought to refine their business strategies into something much simpler: a return to core values. To encourage a more robust willingness to pay among consumers, these companies are attempting to emphasize the distinction between themselves and the so-called "fast-fashion" adherents who sell a broad and low-quality product range reflecting the latest temporary fads. "This is not about girls in China with a sewing machine, but about workmanship, exclusivity and the sheer gloriousness of the materials" says Peter Marino, a Louis Vuitton store designer, according to Fortune. In contrast, "fast-fashion" branded goods – two well-known examples are Zara and H&M – offer very low prices, are mass-produced, and are made of poor-quality materials by inexpert tailors. According to several industry experts, "fast-fashion" buyers typically look for neither quality nor durability, but aim primarily to keep up to date with the most recent fashion trends.

In a modified adaptation of the "fast-fashion" concept, many luxury and high-end companies pursued a so-called "accessible luxury" strategy during the early 2000s. These companies sold small gadgets, such as branded key rings and playing cards, alongside their regular merchandise, which included handbags priced at several thousand

euros. This so-called "democratization of luxury," says Christine Chow, luxury trends expert and writer for *The New York Times*, opened up the possibility for many more people to buy into luxury-branded items. Through accessible luxury, the phenomenon of buying a logo for the logo's sake became widespread, and luxury goods companies became more closely associated with mass merchandising than with their previously heralded core quality values.

Chow believes that these small-ticket sales have withered as a result of the recession. Marquee luxury players have since sought to distance themselves from widely affordable accessories in order to restore their brand value and re-engage their core base of consumers, who buy luxury items precisely because they are not affordable to the general population. Christian Dior, a prestigious French fashion house, is a case in point. According to *Women's Wear Daily*, "Dior exited the logo and 'access product' business as it pursues an upscaling drive."

Seeking to restore the affiliation with elitism, other luxury companies have tended to move in a similar direction. For example, firms including Prada and Giorgio Armani have, despite soft market conditions, so far resisted the urge to discount prices or expand product ranges to include less expensive items. In fact, many firms have done just the opposite by offering more expensive and "exclusive" products, aggressively trying to distance themselves from the purveyors of "fast-fashion" and even mere high-end fashion players. In its 2008 year-end earnings call, Christian Dior reported "significant growth" in sales of handbags priced at more than €1,000 retail, which provides some initial support to the success of such a strategy.

In order to classify and promote the fundamental change in approach that the luxury goods industry

is pursuing, its key players are emphasizing the adoption of a new set of core values. According to Chow, their aim seems to be to regain the confidence of the core consumer base, which was alienated by flirtations with affordable luxury strategies.

These core values fall into distinct categories. The first is individuality. Luxury goods consumers seek products that are not readily available to the general public. They trust the creativity of the designers and expect unique products that demonstrate superior design skills. Given the high sophistication of today's luxury consumers, a mild contradiction exists in what they demand. One example is a consumer looking for a handbag that is classic enough to remain in fashion but sufficiently innovative to make it distinctive.

The second core value is quality. Brands that are perceived to offer quality engender consumer trust and confidence. As such, the designer's work is expected to be completed with the utmost care, and the craftsmanship is expected to result in flawless merchandise. Moreover, the products must also be durable and accompanied by firstrate after-sales service. The craftsmen are expected to be true artisans who take pride in their creations and consider each individual article to be a work of art. The materials used offer a further element of reassurance and are sourced from only a very select and limited group of vendors. Such expensive and exclusive products are considered to be lifetime investments with stylistic and actual material durability that outlives numerous fashion cycles.

The third core value is authenticity. The ideal consumers for luxury houses are those who feel a true affinity for the brand and what it represents. Shoppers are willing to spend when they find a product that reflects the way of life to which they aspire and when they identify with the messages the

brand seeks to communicate. Such messages are centered on the artisanal and authentic features of the products. Recognized stamps such as "Made in France" or "Made by Hand" are critical to the perceived veracity of these messages.

Environmental sustainability can be considered a fourth core value and has recently come into sharper focus for many brands and consumers in the highend and luxury product industry. It has grown into an important part of a company's image, enhancing the perceived value of the story behind a brand, especially at a time when consumers are demanding individuality, quality and authenticity. Environmental sustainability refers to long-lasting products that avoid excess waste and are made with environmentally conscious skins and textiles. Sustainable handbags contain materials with little to no chemical substances that are produced with clean and ethical standards.

Roucou's Response

Much like luxury consumers, high-end consumers have also reassessed their purchasing values and priorities. A new type of consumer has emerged who is seeking durable products of high quality that justify a significant expenditure, even during the crisis. These consumers are looking for what could be called "recession-proof products."

Roucou's existing consumer base has undergone a similar transformation in mindset and is now more aggressively seeking a higher innate value of merchandise. Offering authenticity, individuality and quality, Roucou's product portfolio is well-positioned to satisfy this new breed of consumers. "Philippe Roucou epitomizes the very essence of Parisian chic: Sleek and stylish, exuding that easy glamour and sophistication that is specific to the French, Roucou's bags make a statement without having to make a fuss," writes Valerie Demure, his London agent, on her website.

Roucou says that he wishes to optimize his brand during the recession. He is considering ways to exploit the new paradigms that high-end and luxury brands and consumers are now following, and he hopes to provide more communication on these issues.

While Roucou has already partially incorporated sustainable features – such as the use of organic leather – into his products, several industry analysts believe that he has not effectively communicated these attributes on a large scale. In this more challenging environment, marketing and brand identity have become ever more critical in attracting and retaining consumers. Some fashion experts believe that, by limiting his promotional efforts to "pull marketing" alone, Roucou misses opportunities that would easily allow him to relay his story to more consumers and to solidify further his authentic brand identity. According to Chow, implementing an effective communications strategy that conveys his brand's core values and sustainable qualities could help Roucou connect directly to his existing and potential consumers through a shared set of values.

Roucou concedes that one possible solution may well be online marketing. The Internet has become one of the most utilized methods for companies to communicate in an easy and cost-efficient way; online content can be reused almost endlessly and gives consumers complete flexibility about when and where to obtain the information. Roucou already has an online presence, but his website contains scant information and is built around a design that discourages optimal visitor engagement. The visual introduction can seem very slow; and the site itself requires proactive efforts from the user, rather than providing the information up front. Even though visitors can observe current collections and find contact details for Roucou and his agent in the U.K., no information is available about the brand's history, values or product characteristics.

Roucou's differentiating factor is, to a large extent, himself – his French distinctiveness, his craftsmanship and his artistic perspective.

Communicating more about his persona and the person behind the products would distinguish him from competitors by sharpening his brand identity.

According to industry observers, a revamped online strategy could also help Roucou to engage more actively in marketing and to communicate his product features and brand values more forcefully to a global audience. Furthermore, Roucou could improve his access to potential clients with searchengine optimization. Google results for handbagrelated terms currently do not include his website, but do reveal those of his closest competitors — an illustration of how Roucou's lack of online marketing and communication has exposed him to competitive disadvantage.

Roucou could also complement his website with an online shop that would provide convenient product access to significantly more potential consumers. Many other brands currently operate online boutiques to accommodate the modern consumer's lifestyle. Despite the crisis, a number of companies are experiencing a clear trend of strong growth in this one distribution channel. Burberry, a British luxury fashion house, is continuing to scale and develop its business in this high-growth channel. Leveraging his e-commerce shop with exclusive collections available only online and not through retailers would permit Roucou to tap into this growth while retaining his own compelling brand identity. Indeed, Philippe Roucou has managed his business through 17 years of high-end handbag design, building notable brand recognition by exploiting his competitive strengths, including his French origins, artistic ingenuity and high-quality craftsmanship.

The current global recession has dramatically changed consumer preferences in the luxury and

high-end fashion product segments. Challenging economic conditions have prompted luxury and high-end consumers to focus more on fundamental product quality and brand credibility as a way of maximizing the perceived value of their purchases. Rather than causing a total retreat from buying, the recession has served to encourage customers to think more carefully through their purchasing decisions and to reject consumption for consumption's sake alone, according to industry watchers. Such dynamics have played into the hands of those purveyors of luxury who have succeeded in

exploiting this tendency. Although this may appear contradictory, the recession has not prompted an aversion to spending but, rather, provoked an aversion to waste, analysts note, adding that the ability of luxury players to distinguish themselves from sellers of generic or lowly perceived value items will be instrumental in determining their survival in the new paradigm.

This article was written by Gemma Acton, Line Degner, Jeremiah Marble, Andrew Meaney and Jaime Vidal, members of the Lauder Class of 2011.



Russia's Remake of its Casino Industry: A Big Gamble

The Russian government states that it wants to foster economic development and eliminate the negative social effects caused by gambling as it implements a new policy banning casinos from the country's bustling metropolis. The aim now is to introduce "gambling tourism" – a new concept for the country – to four underdeveloped regions in its hinterland. Yet, lack of infrastructure and investment raises concerns about the feasibility of the plan. At the same time, operators of the big international gambling centers, Internet gambling outfits and others are rubbing their hands in anticipation of how they can benefit from the new policy. So far, it's unclear who the big winners and losers will be.

In 1989, on the eve of the Soviet Union's collapse, the Savoy Hotel opened the first casino in Russia. Two years later, the fall of the Iron Curtain gave way to an open-economy opportunity with very few barriers to entry. By investing as little as \$50 for a license, casino operators could enter the gambling market, and they did so in droves all over Russia. Despite a small downturn in 1998, the gaming industry has been growing steadily over the past 20 years, with casinos and slot-machine parlors numbering in the thousands and employing an estimated 400,000 people. The Russian casino market generated \$7 billion of revenues in 2008, outstripping Las Vegas at \$6 billion and reaching half of Macau's \$14 billion. However, these two decades of robust growth in the Russian gambling industry came to a screeching halt this past summer.

Former president Vladimir Putin enacted legislation in 2006 that allowed nearly three years to relocate all of Russia's casinos to four remote regions: Altai in Siberia, Azov City near the Black Sea, the Primorye region in the Far East and Kaliningrad in the Baltics.

Government officials defended the move as an effort to protect society, but it is unclear whether they had ulterior motives. There seem to be more urgent threats to Russian public health that the government has not addressed sufficiently, such as its serious struggle with alcoholism. Some claim that the relocation is Putin's response to the Interior Ministry linking several gaming operations to Georgian organized crime. A source in the gambling industry reported that "casino owners were becoming very powerful and they had to be shut down. They were told to toe the party line, but didn't."

Fierce lobbying by gaming operators to keep the casinos open in a more controlled environment was not considered. A visit to a fully operating casino in Moscow on June 30, 2009, provided a glimpse of the end of an era. The following day the establishment was dark and the mood was somber as workers wheeled countless slot machines out to the streets, confirming Russia's determined enforcement of the new law despite widespread belief that it would be delayed.

The new policy appears to be at odds with the current economic crisis in Russia by eliminating 400,000 jobs when unemployment is at an eight-year high and stripping Russia of nearly \$1 billion in annual tax revenues during a year when the economy is forecast to contract 7.9%. Despite these immediate economic consequences, anti-gambling experts, such as University of Illinois professor John W. Kindt, claim that banning the casinos will "put money lost to gambling back into the traditional consumer economy, where an economic 'multiplier effect' triples its impact by creating new jobs supplying goods and services."

The social consequences of the new policy are also ambiguous. The Russian government claims that the relocation will clean up the streets and decrease corruption in Moscow and St. Petersburg by forcing crooked casino owners and high-profile gamblers with ties to Russia's organized crime to close or move their operations. Zurab Kekelidze, deputy director of Russia's Serbsky Institute, a psychiatric clinic that specializes in researching addictive behavior, says nearly three million Russians are addicted to gambling, many of whom are unemployed teenagers, students and pensioners, who gamble away what little money they have. While stripping addicts of this destructive behavior is well intentioned, Kekelidze says, "gaming addicts deprived of their favorite past-time in large cities could switch to alcohol or drugs." With a potential decrease in organized crime but a possible increase in alcoholism and drug use, it remains to be seen how effective the ban will be in cleaning up the streets.

Into the Great Wide Open

The Russian government says it has confined gambling to the four aforementioned regions in an effort to foster economic development and eliminate the negative social effects caused by the activity. Whether any of these regions will succeed is questionable, leading many to wonder how the void will be filled. Russia's neighboring countries are

eager to capture the business of VIP gamblers, while Internet gambling could satisfy the needs of customers unable to travel.

The most central gambling zone is Altai province, which lies in Siberia, halfway between the Pacific Ocean and Moscow, near the Kazakhstan border. The region is heavily dependent on agriculture and mining. In 2006, the federal government designated Altai as a special economic zone for tourism due to its unique natural resources; access to rivers, forests and mountains; mild weather; and an array of museums and memorials. The designation is projected to add \$1.2 billion to the region's economy.

Despite its many attractions, Altai's inadequate infrastructure leaves doubts about whether the region can sustain an influx of gambling tourism. One company, Casino Austria, intends to build a casino in Altai called Siberian Coin. Although construction has not yet started, the local government has launched road and bridge construction projects. Meanwhile, the airport in the region's capital city is currently unable to handle any additional traffic that casino tourism is expected to draw, but expansion is set to begin in 2010.

The second zone, Azov City, is currently an uninhabited 5,000-acre site in southwestern Russia. located next to the Azov Sea on the border of the Krasnodar and Rostov regions. Indicative of the area's anticipated growth, the local government plans to build a recreation center and support a population of 30,000. Federal and regional governments have designated \$3.2 billion to develop the area's infrastructure by building highways, a small-aircraft airport, a marina and other services. Yet, thus far, electricity has been brought only to the region's border and the rest of the infrastructure will not be ready before the end of 2011. While 16 parcels of land were allocated to investors through a tender process in 2008, only one investor, Pak-Express LLC, a Tatar company that

owns four of the parcels, has begun construction. The company, which has been planning to open its casino operations at the end of 2009, announced recently that because the local government has failed to provide the required infrastructure in a timely manner, it will build its own infrastructure and generate power independently. The other investors have postponed their projects. According to experts, these investors are further discouraged by the lack of political and financial security and their skepticism about the viability of tourism in the region.

The third designated zone, the Primorye region, is an 845-acre coastal area near Muravyinaya Bay, in the far eastern part of Russia by Vladivostok. Local politicians emphasize the leisure potential for the site, hoping to attract tourists from Japan, China and South Korea. Sergey Darkin, governor of the Primorye region, exuded enthusiasm upon learning of the zone's designation for gambling. He noted that "our region is an appropriate place for construction of a world-class gambling zone. It will allow an increased flow of tourists to the Russian territory." With the help of a regional law that increased gambling taxes by 500% in 2009, each gambling table will contribute an estimated \$4,000 every month to the government's budget. Yet the gambling zone's construction would likely cost between \$575 million and \$960 million, which seems unattainable in the current economic climate. Despite its proximity to the Asia-Pacific markets and the fact that 3,781 new gambling machines and 56 licenses have been registered there over the last year, the Russian gambling industry remains skeptical. "We certainly won't be moving there," says Michael Boetthcher, chief executive of Moscowbased casino operator Storm International.

The fourth zone, Kaliningrad, is located on the Baltic Sea, bordering Poland and Lithuania. As the westernmost part of Russia, it has no land connection to mainland Russia. It was designated a special economic zone in 1996, allowing

manufacturers to receive tax and custom duty breaks. Its physical proximity to Europe and possible tax incentives create the potential for Kaliningrad to become a gambling hub and a tourist destination on the outskirts of Western Europe. However, with a population of only one million, local gamblers are unlikely to generate substantial revenues for casinos in the area. To provide sufficient infrastructure and supporting industries, the local government needs to attract approximately \$19 billion of investments over the next seven to 10 years. Thus far, Kaliningrad's government has signed one agreement, with ISK Yantarniy, a private real estate company, to cooperate on the gambling zone's development. This agreement includes splitting and selling the land through an auction.

The World's Their Oyster

Given the disappearance of casinos in Moscow and St. Petersburg and the lack of preparation of the four designated regions elsewhere in Russia, the international community is interested in courting wealthy, mobile Russian gamblers. Neighboring Belarus and some Central Asian countries are the most viable alternatives for capturing a large part of the Russian market. In addition, China's main gaming zone, Macau, plans to attract Russian VIP gamblers with its plethora of world-class gaming institutions.

Belarus shares a culture and language similar to Russia's and is less than a two-hour flight from Moscow and St. Petersburg, making it a logical location for large-scale casino operations. The president of Belarus, Alexander Lukashenko, has expressed interest in attracting Russian casino operators and intends to develop a gaming area close to the airport in Minsk, Belarus's capital. The region has ready-to-use infrastructure, including an international airport and developed land, close to a population center. Lukashenko cites other benefits, such as no visa requirements for foreigners and

Russian nationals, tax benefits and tariff-free trade. Shangri La, formerly one of the largest casinos in Moscow and operated by Storm International, is pioneering the move with a \$10 million investment. Ritzio Entertainment Group, Storm International's direct competitor, began operating in Belarus several years ago and has opened over 30 new gaming halls in the past two years.

Although the move to Belarus seems like a natural fit for Russian casinos, many potential owners are wary of breaking ground in this ex-Soviet Republic due to the high risk of government intervention. Similar to Ukraine's sudden ban of casinos, Belarus could follow suit should the industry fall out of favor with local authorities. This potential risk, however, does not seem to deter the largest operators.

As an alternative to Belarus, some Russian casino operators are preparing to move their operations to Central Asia, where zoning and local laws are more lenient and conditions are ripe for investment. In the wake of the Russian law changes, several Central Asian nations have been prompted to review their current casino laws and have followed the Russian example of creating special gaming zones. Armenia, in June 2009, put forth a proposal to move casino operations to three designated regions by 2013. Kazakhstan had previously restricted all gaming to two areas in 2006, but many casinos formerly operating in its main commercial city, Almaty, moved to Kyrgyzstan, where gambling in the capital is still legal.

The Kyrgyz government wants to promote the region's main tourist attraction, Lake Issyk-Kul, by allowing Russian casino construction on its shores. Moreover, Moscow city officials have offered to help build an airport to improve access to the area. Storm International is also expanding operations in Kyrgyzstan and Tajikistan, while operating the largest casino in Armenia.

For Russian VIP gamblers, a possible destination is China's Macau. Gambling has been legal there since the 1850s, but the Macau government did not end its monopoly until 2002, when it granted casino-operating concessions to six companies, including foreign operators. When multinational gaming giants, such as MGM Mirage and Las Vegas Sands, entered the market, the gambling business skyrocketed. Currently, 70% of the Macau government's revenues come from gambling.

Macau's gambling industry is divided into casinos, junkets and sub-junkets. The junkets are the interface between the large casino operators and the players. Because there is a lack of proper legislation and law enforcement in Macau, lending to gamblers and collecting gambling debt are handled by the junkets and sub-junkets, which allows the casino operators to run their businesses without getting involved in debt collection. One prominent subjunket has been preparing for the Russian gambling ban over the past two years. A source close to senior management reported that the business will involve catering to Russian VIP gamblers, starting with chartering planes from Moscow, St. Petersburg and other major Russian cities. All the needs of the gamblers will be addressed, helped by Russianspeaking staff and a specialized Russian version of poker, which no other international operator offers. The latter is especially important because Russian gamblers are partial to their version of the game. Although the VIP gamblers could visit many other international destinations, Macau is likely to lead competition with its tailor-made approach.

Horses for Courses

Initially, Russia's new federal law allowed horse racing, poker and lotteries. A few weeks after the ban was enacted, however, poker was declared illegal. Yet it remains to be seen whether the law has curbed all forms of gambling across Russia. For example, at a former casino in Sochi that was recently raided, people were caught playing slot

machines, poker, roulette and other games. In Sochi, 54 illegal game clubs and 385 game devices were found in one resort. Such a trend can be seen all over the country as the police attempt to locate and shut down illegal gambling establishments. Since the ban, 172 criminal cases are under investigation, including organizers who pocketed more than \$30,000 in income connected to illegal gambling.

Notwithstanding the power of illegal gambling, one can already see the effects of the gambling ban on the streets of Russia's cities. While the flashy lights of the Novyi Arbat casinos are gone, people are finding new ways to test their luck. A crowd gathers outside the metro station Arbatskava, swarming around a makeshift table where two women are selling lottery tickets. Nearby, dozens of people are scratching endless rows of tickets to get their gambling fix. Elsewhere in Russia, other popular forms of the lottery, including automatic lotto machines, are prevalent. In Kazan, the capital of Tartarstan, lottery machines can be seen on every street corner. Since the machines are categorized as "lottery," they're still in operation. "Virtual casinos" are another legal alternative to gambling. These establishments have sprung up all over Russian cities. Experts say that many gambling establishments simply changed their signs – instead of gambling in a casino, clients sit in "Internet cafés" and play their favorite games on computers.

Since the casino ban, it's unclear where Russia's gambling industry is headed. In the short term, most Russian gamblers are likely to turn to the Internet or go to underground casinos, while wealthy players will jet-set around the world and frequent elite venues in China, Belarus or Central Asia. The market is fragmenting as gambling disperses to neighboring markets. Significant

obstacles stand in the way of gambling's development in the four zones of Altai, Azov, Primorye and Kaliningrad. A lack of infrastructure and transportation, combined with the slow response of the local and federal governments, could curb investments by foreign and domestic companies.

In addition, the vast majority of wealth and power in Russia is concentrated in Moscow and St. Petersburg, and their city dwellers are unlikely to travel to remote areas of the country to gamble when domestic airfare is often more expensive than international air travel. Frequenting casinos as tourist destinations is an unusual concept for Russians, who, unlike their American counterparts, view gambling as recreational. As Yevgeny Kovtun, a well-known publicist in gambling law and regulation, points out, "In the U.S., people know about Las Vegas from childhood, but in Russia, gambling tourism doesn't exist." Thus, the development of casinos in the four regions will likely be driven solely by local demand. If gaming areas in Russia are to develop, they will do so very slowly.

In the long term, because the substantial revenues that casinos previously brought to government coffers could be lost to its neighbors, the Russian government may want to bring casinos back to its big cities, possibly under a new set of laws and management rules. Will we see casinos reappear on the Moscow cityscape in the near future? This might be the key question keeping gaming investors out of Russia today.

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Going Solar in Senegal

Affordable and reliable access to electricity is vital to a country's economy, education system, public health and food security. Although Senegal has long been seen as one of Africa's model democracies — with a multiparty system, a tradition of civilian rule and a history of economic stability — its prosperity has been constrained by inadequate access to uninterrupted electricity. Government initiatives to increase the extent and efficacy of electrification have had little impact. Some observers suggest, however, that the emerging European trend toward decentralized solar could be applied successfully to Senegal and, ultimately, the rest of Africa, with the help of the Senegalese government, international development agencies, independent power producers and financial investors.

Affordable and reliable access to electricity is vital to a country's economy, education system, public health and food security. Although Senegal has long been seen as one of Africa's model democracies — with a multi-party system, a tradition of civilian rule and a history of economic stability — its prosperity has been constrained by inadequate access to uninterrupted electricity. Lacking domestic fossil fuel resources and challenged by insufficient strategic investment, the underdeveloped electricity infrastructure in Senegal strains to serve the country's dispersed, mostly rural population. Government initiatives to increase the extent and efficacy of electrification have had little impact.

Some observers suggest, however, that the emerging European trend toward decentralized solar could be applied successfully to Senegal and, ultimately, the rest of Africa, with the help of the Senegalese government, international development agencies, independent power producers and financial investors. Such an initiative, these observers note,

could transform Senegal's energy sector and serve as a model for the electrification of developing countries worldwide. "Of all the sources of renewable energy available to Senegal at this stage, only photovoltaic solar on a small scale can be our target. [Other forms like] thermal solar are out of reach...and wind is still at an experimental phase," says Lamine Thioune, the Senegalese Minister of Energy.

Since Senegal does not possess economically viable oil reserves, it must rely on costly imported oil and unsustainably harvested local biomass for its energy needs. Lacking adequate hydrocarbon storage facilities, the country cannot mitigate temporary supply problems and is forced to pay steep premiums for regular delivery from overseas. A dearth of domestic resources forces the country to exploit its forests as biomass for electricity production, with disastrous consequences. According to a report commissioned by the Senegalese Director of Energy, two-thirds of Senegal's woodlands have been lost to the biomass

program. This dramatic deforestation has degraded the water content of the soil, drastically reducing the agricultural yield and feed available for local livestock. While real GDP growth in Senegal averaged 4.1% between 1998 and 2005, severe electrical shortages in 2006 slowed growth to 2.3% and, by 2007, had turned real growth negative, well before the worldwide financial crisis hit.

Electricity costs in Senegal are punitively high. Between 1998 and 2004, energy prices to consumers rose 66% (a compound average annual growth rate of 7.5%), due mainly to an inefficient powergeneration fleet and antiquated transmission and distribution networks. During the same period, the average cost of production for power in Senegal was twice that of continental Europe. The subsequent spike in oil prices only compounded these problems: In 2007, the average retail consumer tariff was 60% higher than the European and U.S. averages. These tariffs were not only more expensive, they actually created losses for the national utility, which survived solely by means of heavy government subsidization.

Senegal's dispersed rural population makes transmission-line installation time-consuming and costly. Half of its 10 million citizens live in rural areas, and one-third of the population resides in villages of 250 or fewer inhabitants. Barring a massive population displacement to urban zones, it is impossible to envision a high-voltage transmission network that could serve the entire country. Transmission lines are currently limited to the regions surrounding Dakar and to a single line from the Manantali power plant in Mali. Otherwise, the interior of the country relies entirely on independent regional networks for its electrification. In 2007 less than 16% of the rural populations was considered "electrified."

Geographic and resource-related difficulties are compounded by a chronic lack of investment in energy infrastructure. The rate of blackouts has averaged 9.8% over the past 10 years (representing over a month of outages each year) versus 0.03% (one day per 10 years) in most industrialized countries. Overconsumption of electricity by outdated and inefficient consumer appliances is also a "well-known problem," according to Victor Ndiaye, CEO of Performances Management Consulting Group, an independent for-profit consulting company in Dakar.

The Potential for Renewable Energy

Historically, Senelec (the National Electricity Society of Senegal), the state-owned electric utility, has controlled all aspects of the electricity market. In 1998, Senegal began restructuring its electricity infrastructure, seeking to unbundle generation, transmission and distribution activities. The country hoped that a liberalized market would encourage efficiency, competitive rates and more reliable service. At present, only the electricity generation market is open to the private sector; and Senelec remains the only operator for transmission and distribution. The privatization was also accompanied by the creation of an independent regulator, an important step toward building an operating environment trusted by private companies.

Reform has produced some positive results so far. One independent producer has entered the market – GTI, an American company that runs a 51 MW combined-cycle gas plant. Several merchant suppliers have also entered the market, including ICS, Sococim and Sonacos (although their financial viability is questionable given the current fixed-tariff environment).

Regardless of what its current energy mix implies, Senegal actually possesses considerable renewable energy potential. The country receives over 3,000 hours of sunlight a year, making it an ideal location for solar development. In addition, the coast between Saint-Louis and Dakar is suitable for small-scale wind development. Senegal also has tremendous untapped hydroelectric potential

along the Senegal and Gambia Rivers. Finally, its agricultural economy creates significant opportunities to develop biomass from byproducts of the sugar cane and peanut industries (both of which are more sustainable biomass sources than woodlands). Nevertheless, renewable energy development so far has been aid-agency sponsored and strictly localized, in part because wind, hydroelectric and biomass require much larger amounts of upfront capital expenditure than do certain types of solar energy investments.

Current government energy policy in Senegal aims to make the existing system more reliable and to bring electricity to communities that currently lack it. To address the reliability of electricity in urban areas, the government finances research in biomass and requires Senelec to invest in renewable energy. According to the Minister of Energy, however, these projects continue to be "in a discussion phase." The government places far greater emphasis on a second issue: electrifying rural areas of the country.

The primary government-led initiative to address rural electrification is being run by the Senegalese Agency for Rural Electrification (l'Agence Sénégalaise d'Electrification Rurale, ASER), an autonomous organization loosely affiliated with the Ministry of Energy. The government created ASER in 1998 as part of its energy-restructuring initiatives, which included the process to dismantle Senelec's monopolies. It was founded with the goal of making energy available at competitive prices by using public-private partnerships to encourage rural electrification. The rate of this electrification has already increased from 5% at the end of the 20th century to 16% today, but ASER aims to bring the rate to 30% by 2015 and 60% by 2022 – a pair of highly optimistic goals. In fact, several people at the Ministry maintain that they perceive a stark disconnect between publicly stated targets and realistically achievable results. "We like to have ambitious goals," says the Secretary of Energy, "because it motivates other segments of the

government to act faster. That being said, meeting all of our targets in the given timeframe will be a big challenge."

Before ASER was established, the country's energy plans had one source of financing, and the government and electrification plans sought only to extend the existing electricity network through traditional energy sources. As a result, by the end of the 20th century little progress had been made in terms of rural electrification.

ASER's creation fostered a new approach toward rural electrification, repositioning it as a key social and economic development priority for Senegal — a means of simultaneously reducing poverty and improving productivity. Public-private partnerships were introduced to expand and diversify sources of funding for energy projects. Subsidies provided by international development agencies were planned to encourage private investment and to keep local tariffs consistent relative to income levels in different parts of the country. In addition, a "neutral" approach to technology was mandated, allowing the most appropriate technology to be pursued, rather than simply extending the existing traditional energy network.

The agency's primary strategy for electrifying the rural areas is the Rural Electrification Priority Program (REP), under which ASER divides the country into 12 concessions. The REP defines each concession as a group of at least 5,000 rural households lacking electricity as of December 31, 2000. Each concession must be financed by an international development agency, such as the World Bank, the European Union, or the African Development Bank (ADB). Senegal has also invited private-sector firms to compete for the right to develop and run each concession. This mechanism forms the public-private partnership that is a cornerstone of ASER's new approach to rural electrification.

Today, the concessions are in the process of being assigned to the private companies that will undertake technical studies assessing potential customers' ability to pay and decide which technologies would be most appropriate. The private companies are responsible for acquiring and installing the equipment; operating, maintaining, and renewing the equipment; and billing and managing client relationships over the 25-year concession period. This structure allows private concessionaires the freedom to choose the most competitive technology to attain the goals set out in the calls for offer. For example, they can choose to extend the existing network or install a decentralized solar system.

However, despite ASER's new approach to rural electrification, the organization has not made much progress in the decade since its creation. According to the original plan, rural electrification was to reach 30% of the targeted population within six years (or 50%, according to ASER's director). Given the slow pace of past development and considering the ministry's habit of posing "ambitious goals," it is doubtful that these goals can be achieved on time.

Even determining what "on time" means can be problematic. Interviews with, and documentation provided by, the Minister of Energy and ASER reference inconsistent – sometimes mutually exclusive – goals. Depending on the source chosen, the rate of completed rural electrification in 2005 varied between 7% and 15%. The electrification goal for 2015 could be 30% or 50%. The number of concessions already financed by international development agencies could be 12 or three. Finally, only one of the 12 concessions has been won by a private enterprise, L'Office National de l'Electricité (ONE), from Morocco. Discrepancies in timing, targets and partnering strategy directly threaten the credibility of the REP, as it makes the project appear unplanned and poorly monitored. This perception, according to observers, will cause private companies to hesitate to invest in the project.

Economic Viability and Investor Appeal

While the Senegalese government should be commended for crafting a forward-thinking energy policy, present plans do not seem to be economically viable. As noted by several board members at Performances Consulting Group, "The government's current plans for electrification represent the country's theoretical potential and not necessarily the expectations of any of the participants."

The REP as it stands today is not profit-focused. While its appropriateness is arguable for a development project, the model is most definitely inappropriate for attracting the private investors whom the plan claims to target. The possible returns for an outside investor would come from tariffs charged and from CO₂ credits, essentially carbon-credit equivalents that could then be converted to certified emission reductions (CERs) and sold on exchange. Given the rural population's limited ability to pay, most tariff schemes would require heavy subsidization. Taking into account the location and the current cost structure of the industry, our analysis suggests that issuing CERs for a photovoltaic mini-grid over 21 [21 or 25?] years would cover only about 2% of the total cost of the investment. Even if a number of projects are bundled into one to reduce per-project CDM registration and transaction costs, the CDM still does not cover a significant portion of the investment cost. For these projects to have a positive NPV, well over 90% of the investment cost would have to come from subsidies.

On the surface, the necessity for subsidies may not appear to be a shortcoming of the ASER program, given that the renewable energy industry around the world still relies on subsidies for its survival. However, Senegal's unusually high required subsidy puts the credibility of the entire plan into question. To gain approval for a local subsidy, several layers of government and government-controlled entities would have to be involved, including ASER, the Ministry of Energy and the office of the President –

dramatically slowing the speed of electrification. Furthermore, high subsidies produce the risk of subjective standards for project evaluation. According to one director at the Ministry of Energy, "project evaluation is a multi-step, time-consuming process involving several agents within the government, whose interests are not always aligned."

Another shortfall of the rural electrification plan is a potential lack of attractiveness to philanthropic/development-oriented investors because of Senegal's track record of slow bureaucratic decision making and an absence of legislation to safeguard foreign investment. Once projects are begun, project developers would have to contend with serious obstacles including equipment theft, delayed government response to specific developer needs, the slow pace of implementation and a lack of clear legislation for the future of concessions after the first 25 years.

The greatest shortcoming of this plan, however, is its limited scope. The plan allows for the use of renewable energy to address rural electrification, but ignores the much larger problems of the currently insufficient levels of urban and suburban electrification, uncertain system reliability and Senegal's future carbon footprint. Apart from isolated cases where regional governments have been involved in developing small-scale renewable energy plans, there has been no concerted effort to use renewable energy as part of the integrated system. The plan is an excellent point of departure in terms of process, but, according to experts at the IMF and other aid agencies, it should be extended to promote rural, suburban and urban electrification.

Decentralized Solar: A Better Solution?

Experts point out that Senegal might be able to meet its energy goals more easily if it were to pursue a decentralized solar alternative, which includes photovoltaic (PV) mini-grids and home solar systems. These involve panels, ranging from a few kilowatts (KWs) to half a megawatt (MW) that

would cover energy consumption needs ranging from a one-family residence to a community of 500 people. In Senegal's case, this model addresses the problems of large-scale government funding and is also favorable from a financial return standpoint. A quantitative analysis of all forms of renewable electrification in Senegal by the German Ministry of Economic Cooperation and Development asserts that, "in the long term, photovoltaic-based systems ...seem to be the technical solutions with the best economic performance for various demand simulation cases of a village with 500 inhabitants."

In a rural setting, the decentralized solar model would provide electricity to an entire village of up to 500 people from 6:00 A.M. to 12:00 midnight for the equivalent of \in 7 a month (\in 84 annually), compared to a per-capita GDP of €780 a year in rural areas. This translates into roughly 10% of rural per-capita GDP, a manageable figure. In assessing this figure, it is important to note that the model requires no subsidy at all and, in fact, produces both a positive internal rate of return of 5%-20% to the investor (depending on size) and also a payback period of five to eight years. Larger village sizes or round-the-clock power generation would increase subsidy costs; but these subsidies would be required only for the poorest 20% of the rural population, since most Senegalese families can afford the amounts listed above (and in some cases currently pay considerably more for conventional power). Moreover, as technology improves and costs are driven down, these figures underestimate the merits of decentralized solar power generation.

A Solution to Urban Electricity Challenges?

Decentralized solar has an even greater potential in Senegal's urban centers. Ultimately, it appears to be the only cost-effective way to bolster or rebuild the country's existing electricity system. For example, consider the following comparison between centralized and decentralized solar. Managers at a global renewable energy developer argue that the

agglomeration of solar panels in large developments – called solar parks – is, in fact, "dead on arrival." A member of the management of EDF Energies Nouvelles, a major global player in renewables, points out that the economics of centralized solar "simply do not add up in most cases" and that "decentralization will drastically reduce or eliminate the need for subsidies, in the long run."

In centralized solar parks the independent power producers (IPPs) collect the wholesale price (and usually a tariff/guaranteed amount by the government to make the investment worthwhile), whereas for decentralized solar, the installation cost compares favorably with retail tariffs. European power prices have ranged between €30 and €70 per MWh over the past five years, while retail tariffs have ranged between €110 and €250 per MWh (depending on each country's energy costs and utility margins). By comparison, installation of a centralized solar facility costs approximately €250 per MWh at today's prices; in some instances, where land availability is high and preapprovals exist, the cost can drop to below €200 per MWh.

To account for the discrepancy between wholesale prices and costs, most European governments offer fixed tariffs of €300-450 per MWh for set periods of up to 20 years. The benefit of decentralized solar is that it bypasses the subsidy mechanism and compares directly to the retail price. In short, governments are better off incentivizing the installation of small solar panels on roofs, rather than spending large amounts of money on centralized solar panels. The demand-shaving effect is immediate and the required level of subsidy is zero in areas where retail tariffs exceed installation costs, or small in cases where tariffs are lower than the costs.

If the costs of finished solar panels continue to drop at their current rate (25% per year), in four years' time decentralized solar costs will match even the lowest tariffs in Europe, a veritable revolution. With an average retail tariff in 2007 of €230-250 per MWh, Senegal falls well within the high-cost European peer group. The application of decentralized solar in urban areas could revolutionize system reliability, degree of electrification, cost effectiveness and environmental impact simultaneously. For a 10 KW system (a group of 100 people in our model, e.g., a high-rise building), at an installation cost of €250 per MWh, it would take 17% of the customers' income to pay for the project. Assuming a 10-year amortization period, the project would pay for itself, and the customers today should be indifferent about paying Senelec for electricity or choosing to install solar panels. At current price points, it takes only a small amount of encouragement from the government (such as interest-free loans to customers who install panels via Senelec) – a mere fraction of the large subsidies suggested by the REP plan – to create significant demand for solar-panel installation.

There are multiple benefits from this approach. Assuming demand continues to grow at 7% a year for structural reasons (e.g., natural population growth, urbanization), if 10% of the urban population choose to install solar panels, blackouts would fall from 9.8% to 5%, the country's CO2 emission costs would fall by 20%-30% (Senegal is a Kyoto signatory), and Senelec's profitability would improve dramatically. If more than 20% of the urban population choose to install solar panels, the wholesale and retail tariffs would actually drop dramatically (since many inefficient plants would not be called into service during the daytime), benefiting the entire economy. While the precise numerical effect on productivity and growth is impossible to predict, the net impact of a decentralized solar plan in an urban setting would certainly be very positive.

Collaboration as Strategy

Implementing a decentralized solar plan to improve electrification in Senegal requires investment and cooperation from four key groups of stakeholders: Senelec and the Senegalese government, international development agencies (e.g., the World Bank, the IMF, the ADF), IPPs and financial investors.

As the largest player in Senegal's current energy markets, with the most extensive knowledge of existing electricity networks and consumers' habits, Senelec should take the lead in investing in a decentralized network of solar panels. While energy market liberalization does not pose a threat to Senelec in the immediate future, early adoption of new technology could help the company establish the lead in a market that may prove more lucrative than traditional energy.

Since solar panels will be financed largely by retail customers in urban areas, the Senegalese government should provide tax-free loans and other incentives to introduce solar panels into the energy mix. The government should also mandate that corporations operating in Senegal source a certain percentage of their energy needs from solar energy. Finally, the government should lobby the West African Monetary Union for reductions in import tariffs on solar equipment. Benefits to the government include reducing the negative effects of deforestation on agriculture, increasing productivity and GDP from higher rates of reliable electrification, and raising national and international credibility in the eyes of aid agencies and private investors.

International development agency – such as the World Bank, the International Monetary Fund, and the African Development Foundation – should partner with Senelec, the government and private investors to provide financial incentives and subsidies to support decentralized solar projects. Agencies must acknowledge decentralized solar's immense potential to electrify Senegal and other developing countries affordably and efficiently. Support on a small scale will not be adequate;

agencies should commit significant resources to funding, capacity—building and targeted research, recognizing that decentralized solar's potential matches long-held development goals. Solar projects will help meet the basic health, medical and educational needs of rural and urban populations, increasing the standard of living and reducing poverty.

While procurement and fuel efficiency considerations limit Senegal's appeal to traditional IPPs, solar IPPs should view Senegal as fertile ground for investment. Opportunities exist for companies to install, maintain and resell solar panels or to manage load across producing entities. This part of the supply chain has been profitable for IPPs in many other countries, since it is more dependent on human capital management and best practices than on investments in plants and equipment.

While solar energy in Senegal is clearly in a nascent stage of development, it is not difficult to envision a future where decentralized solar in Senegal (and even the rest of Africa) is a feasible and sustainable means of rural electrification. According to Salvador Escobedo, the French CEO of a VC/PE firm specializing in alternative energy and development, the situation in Senegal is "reminiscent of the mobile phone networks that have sprouted up throughout Africa, bypassing the need for a fixed line phone network." Solar IPPs and financial investors – such as private equity and venture capital firms – should recognize this parallel and jump at the chance to invest in the next big technological revolution in Africa: Skip the power lines; Senegal's going solar!

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E-Commerce in Egypt: Opportunities for Entrepreneurs

Tourists will always find Egypt's souks irresistible, but what about the locals? Increasingly, they're facing growing competition for their share of wallet from less traditional shopkeepers — online retailers. E-commerce, still in its infancy in Egypt, is poised to become the country's next big story. That's good news for budding businesses, which once faced big barriers to entry and are now flocking to social networking sites to hawk their goods and services. But shoppers, for the time being, are wary. What needs to change?

"Security stopped me at Cairo airport. Not clear yet why."

In the early morning hours of June 30, 2009, Wael Abbas, an Egyptian blogger and political activist, posted the "tweet" on Twitter, the popular blogging website. Moments later, Hisham Kassem, a prominent publisher in Egypt and a fan of Abbas on Twitter, mobilized Egypt's human rights organizations to call for his release. "We have sent our staff to the airport and speaking to security to end situation," Kassem tweeted. "Prosecutor general notified, complaint made to Ministry of Interior, National Council for HR [Human Rights] also notified." Abbas was released 10 hours later, his laptop and papers confiscated.

Dramatic stories such as this have caught the attention of journalists and other observers, who see online social networking sites as an increasingly critical political tool in Egypt, a country ruled by "emergency laws" since the 1980s. Often overlooked, however, is the fact that these sites can also empower aspirational businesspeople, providing them with a means to work within and around a

commercial environment that traditionally has had significant barriers to entry. Online business activity, or e-commerce, is still in its infancy in Egypt but is poised to become the country's next big story.

According to the government, the number of Internet users increased from 1% of the population in 2000 to 17.2% in 2008, or 13 million people. Nevertheless, a solid e-commerce culture has yet to develop, despite many of Egypt's Internet users being urban youth from high-income households, whose counterparts in other countries are behind the global e-commerce explosion. Online transactions are few and far between – only 0.44% of Internet users conduct commercial transactions online. This statistic is consistent with the low number of secure Internet servers in Egypt. The World Bank reports that in 2008, Egypt had 1.1 servers per million people, compared with an average of 1.8 servers per million people in middle income countries (that is, countries having a per capita income of between US\$1,000 and US\$10,000). Beyond that, the government found that 71% of respondents to a survey it conducted did not know what e-commerce was, while 21%

are aware of it but don't want to use it. Why the reticence?

The primary reason for the underdevelopment of e-commerce is a lack of electronic payment options. Credit and debit cards are the lifeblood of e-commerce transactions. Yet in Egypt, only 10% of the population has bank accounts. Many Egyptians instead open savings accounts with the country's post office. This phenomenon – combined with the fact that 45% of the population is younger than 18 and so are not yet eligible for bank-issued cards – means only 4% of Egyptians have debit cards and less than 2% have credit cards, according to market research firm RNCOS and consultants at Oliver Wyman.

The good news is that the number of people owning credit or debit cards is increasing. Visa International says it experienced a 40% rise in Egyptian card ownership in 2008. Sherif Hashem, executive vice-president of the government's Information Technology Industry Development Agency (ITIDA), says the increase is due, in part, to Egypt's growing credit culture.

Until recently, Egypt did not have a credit bureau, so there were no credit histories and no lasting consequences for a consumer who defaulted on a loan or wrote checks that bounced. To protect themselves, banks only offered credit cards to wealthy clients and required deposits ranging from 50% to 110% of the credit line, an offer too unattractive for even Egypt's wealthiest individuals. "Banks were too risk-averse," Hashem says.

He now hopes that I-Score, Egypt's fledgling credit bureau, will help retail financial institutions manage their risks more strategically. The bureau, launched in 2008 with help from the U.S. Agency for International Development and the International Finance Corporation of the World Bank, reported 4.3 million corporate and individual customers in its first year. Since then, banks have been easing off on requiring collateral on credit cards as they begin using consumer credit ratings and payroll data to approve card applicants.

While waiting for credit and debit card use to increase, some online entrepreneurs have resorted to cash-on-delivery (COD) models. One early COD adopter is Otlob.com, a website founded in 1999 to provide a home delivery service for hungry locals in Cairo, which features menus from dozens of restaurants. The site accepts orders online, which are confirmed over the phone and transmitted to restaurants. The restaurants deliver the food, collect cash payments and later pay a per-order fee to Otlob. But COD is labor-intensive and becomes riskier as a transaction amount increases – customers may refuse to pay, changing their minds and cancelling their purchase after the order is placed.

In addition to COD, Egyptian e-commerce firms are experimenting with other payment methods, including prepaid scratch cards, debit cards and mobile payments. None has yet surpassed COD, especially for small businesses.

The Root of the Matter

Going hand in hand with an embryonic infrastructure is lackluster protection for online transactions. But recent developments indicate that the country is on the right track to address that. Egypt's only law that specifically addresses e-commerce was enacted in 2004. Law No. 15/2004 accorded legal standing to verified electronic documents and added to the ITIDA's vast remit the power to approve agencies that can verify these documents. Meanwhile, on October 5, 2009, the ITIDA announced the launch of the Egyptian Root Certificate Authority (Root CA), which links all certificate service providers (CSPs) in the country in order to provide uniformity and legitimacy to their activities, in addition to connecting them with other Root CAs around the world. The ITIDA's Hashem reports that one such CSP has already received an

operational permit, with two more expecting to have their permits approved soon. The services these companies offer will eventually give e-signatures full force in Egyptian courts.

Validating electronic documents may increase public confidence in e-commerce, but it is far from a comprehensive solution. Egyptians, like e-consumers elsewhere, fear the risk of identity theft and invasion of privacy that online transactions pose. Currently, all Egyptian encrypted information is based on public key infrastructure technology, of which ITIDA has full administrative control. including the ability to punish anyone who abuses the technology or violates its confidential nature. Yet neither identity theft nor privacy concerns have been addressed by the Egyptian legislature, leaving consumers understandably wary. Hashem says legislators are working on a draft law addressing online security, but he doesn't expect it to be adopted for at least another two years. Why the delay? He cites a heated debate that's dividing lawmakers over the fine line between spam and advertising, which shows no immediate sign of being resolved.

In addition to payment methods and legislation, another challenge for e-commerce is how Egyptians use the Internet. Wael Fakharany, country manager for Google in Egypt, Saudi Arabia and North Africa, explains that Egyptian online content is not ready for e-commerce. According to Google statistics, Egyptians consider the Internet to be first and foremost an entertainment medium that's an attractive alternative to censored movies and television programs, rather than a commercial resource. Moreover, Fakharany says most online searches performed in Egypt are difficult to monetize, which, in turn, discourages online advertising and makes it more challenging for online businesses to prosper. He predicts that demand for online transactions will gain momentum first in the business-to-business arena

because online advertising is less important for B2B in terms of attracting customers.

The Government's Response

Internet usage among private businesses is 60%, according to the government. Among households, the figure is only 15%. The government wants to increase both. Under its "A PC in Every Home" program, it has placed three million computers in households through subsidies and generous financing, with payments as low as \$9 per month. According to Euromonitor International market research, there are an estimated 18.4 million households in Egypt, which means that the program has resulted in approximately 16% of households now having computers. The government has also partnered with Telecom Egypt to provide dial-up Internet for the price of a local phone call, making access essentially free.

Meanwhile, the government is moving some of its own services online. For example, teenagers can register for the *thanawiya amma*, Egypt's equivalent of the baccalaureate exam, and get their results online, eliminating the hassle of having to wait for hours in person to find out how they did. During 2009's examination period, Google registered a sizeable increase in online searches related to the exam, as students and parents alike explored the new system. It's one way to help people get used to conducting business online.

The government is also co-developing Arabic-language content on Google through a partnership with Al-Azhar, Egypt's oldest university and a source of Arabic literature. Another program has Google promoting Egypt's tourism, aviation, trade and investment sectors online. As part of the program, Google has agreed to train hundreds of local advertising experts and media experts on how to work on the web as well as invest in Egyptian online startups. There's a good reason for Google's interest: "Media in the Arab world is a \$6 billion

industry, yet only \$100 million is funneled through online channels," says Google's Fakharany.

Google is also bolstering its own online Arabic content. It has developed a tool called Ta3reeb to facilitate Arabic searches on computers with Latincharacter keyboards and launched Ejabat, an interactive question-and-answer website in Arabic. It has also added a tailored version of its Google Sites service, which lets users create web pages in Arabic quickly, and has partnered with Wikipedia to translate 200,000 of the online encyclopedia's entries into Arabic.

Despite the frenzy of activity, the government still faces obstacles. Its forward-looking administrators say they have been stymied by a conservative old guard and have been bogged down with bureaucracy. For example, the Economist Intelligence Unit, which is part of The Economist Group publishing house, reports that the ITIDA reserves seats on its board for state security officials. Part of that bureaucracy includes state security officials, who according to the Economist Intelligence Unit (of the Economist Group publishing house) receive standing seats on the board of ITIDA. State security is cautious when permitting new technology in Egypt.

For example, in 2007, when the government expressed concerns about iPhone users' ability to locate sensitive security sites in the country, Apple agreed to drop the GPS feature from its iPhone model in Egypt. But according to a senior telecoms executive, local industry representatives lobbied at the highest levels to allay concerns, explaining how diffuse this technology already was. The phones are now sold in Egypt with GPS capabilities.

Beyond legislation and regulations, Egyptian officials will have to work hard to address Internet inequalities as well. Currently, dial-up access is virtually free, but the average cost for high-speed

Internet access remains high relative to average per capita income. Statistics from the Ministry of Communications and Information Technology (MCIT) show that households earning more than \$1,400 annually account for 51.8% of Internet users in a country where the average per capita income is \$2,056. In 2008, the International Telecommunication Union found that Egyptians spent, on average, 5.9% of their monthly income on broadband Internet access compared with, for example, 0.3% in Morocco. To address this, the MCIT recently reduced the base price of broadband access from \$27 to \$8 a month. Also noteworthy is that, according to the ministry's estimates, 24% of urban households own computers compared to 4.5% of rural households, with Internet usage reflecting that trend.

Social Networking Meets E-Commerce

As the government pursues changes to the legislative and electronic-payment landscapes to bolster e-commerce, some entrepreneurs have found a way to capitalize on the thirst among high-income urban youth for online distractions. Facebook, with 1.82 million Egyptian users, is leading the charge.

While political-interest Facebook "groups" in Egypt have proliferated, the networking site introduced a feature allowing users to create business-focused groups. This empowers users to showcase merchandise and services online, spread the word about their companies through networks of friends and associates, interact directly with consumers, and join forces with other businesses to advertise their goods on Facebook using links and testimonials. The best part is that it's free – there are none of the rents or fees to pay that hosting and maintaining traditional websites usually require. Essentially, Facebook has become a golden opportunity for many entrepreneurs to set up small online "storefronts," contributing to the rise of new businesses in Egypt.

In addition, Facebook businesses serve a niche overlooked by larger businesses. Given the dearth of

debit and credit cards in Egypt, large and mid-sized businesses have had little incentive to get involved in online commerce because the sales volume hasn't been high enough. The generally smaller Facebook businesses, on the other hand, can serve customers who are small themselves and often require more tailored services than larger companies can or want to provide. Businesses that have been doing well in the Facebook environment include retailers selling homemade products and imported goods.

Mai Ahmed Abdelhany, founder of the Facebook business Paint Ur Life, creates personalized graphic art to sell on t-shirts, mugs and wall hangings. Through Facebook, she has spread the word about her business, reaching nearly 3,500 people. Because businesses such as Abdelhany's generally have low sales volumes, they can use a COD method as Otlob does, but require fewer logistical resources.

Facebook entrepreneurs take advantage of the site's innate tendency to segment markets by creating networks of users who share the same interests and spending habits. In addition, many entrepreneurs add to the exclusivity of their businesses by granting access to their groups by invitation only. Others set up groups solely in English even though Arabic is their mother tongue. "I keep the site in English to attract a certain level of society," Abdelhany notes.

Many businesses also target women. According to Shady Adel, owner of the Facebook-based cosmetics business Marvelous Beauty, Internet usage among women in Egypt is growing, and they tend to spend more on consumer product sites than men. It's not just beauty products attracting female consumers. An array of Facebook groups offer, among other things, personalized t-shirts for women, baby clothes and wedding dresses.

Like bricks-and-mortar companies, Facebook entrepreneurs rely on maintaining high levels of credibility and service standards to keep their customers coming back. But in an online world such as Egypt's, special customer care is especially important in order to help dispel concerns about shopping online. Sharing "friends" on Facebook, promptly answering questions through text messages or emails, encouraging customer feedback, and providing flexible return policies go a long way to putting shoppers at ease. Adel, for his part, acknowledges the importance of such customer relationship management at Marvelous Beauty. "My customers know who I am and can always contact me any time via Facebook," he says.

Given that e-commerce is a new phenomenon with few players in Egypt, Facebook is particularly critical for entrepreneurs launching and expanding businesses, while establishing themselves as first movers in the online marketplace. By focusing on wealthy urbanites, small businesses are reaching a targeted, potentially lucrative segment of consumers. And they're doing this with a robust business model, one with relatively low overhead costs so they can sell products at more competitive prices than traditional retail shops.

The story of e-commerce in Egypt will change as more households connect to the Internet, legislation regulating online activity evolves and consumer credit becomes more widely available. What's more, Egyptians will feel increasingly confident going online as Arabic content in general, and Egyptian content in particular, expands. At that point, large retailers will begin muscling in on the online marketplace. Until then, innovative entrepreneurs can take advantage of their lead, thanks in large part to social networking sites. It is a new and open playing field.

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Can a Desert Oasis Lead the Way to Sustainable Eco-Tourism in Egypt?

Despite what its first visitors must have thought, the Adrère Amellal eco-lodge in the Egyptian desert town of Siwa is no mirage. Eco-tourism might indeed be an unusual phenomenon in this part of the world, but thanks to a pioneering businessman from Cairo, the lodge represents the next frontier for the sector in the Middle East. As a luxurious haven cherishing the beauty of the Sahara's stunning flora and fauna, Siwa is proving that environmental sustainability and a money-making business can co-exist in Egypt. But is there trouble in paradise?

Looking for new challenges after nearly 20 years of development work in Cairo, Egyptian businessman Mounir Neamatalla hopped in his car one day in 1995 and drove to Egypt's western desert. An acquaintance had been extolling the commercial virtues of Siwa, an ancient oasis once visited by Alexander the Great. Walking among its palm groves and gurgling freshwater springs that day, Neamatalla immediately understood his acquaintance's enthusiasm. "Who could have missed Siwa?" he asks 15 years later. "It was one of the poorest places in Egypt [but] with great natural and cultural assets. All the ingredients [for a traveler's destination] were there."

Some would say that fortunately for Siwa, Neamatalla is no typical Egyptian businessman. The environmentally friendly hotels and "ecolodges" as well as the community businesses that his consulting firm, Environmental Quality International (EQI), set up to employ locals turned Egypt's traditional tourism development model on its head. After all, its USD\$350-a-night Adrère

Amellal eco-lodge – with guests sleeping on salt rock beds covered with the finest linens in rooms lit by beeswax candles – shows that environmental sustainability and business can co-exist in Egypt.

But Neamatalla's project and the environmental conservation ideology behind it aren't without controversy. Notably, Siwa is only accessible by car – an eight-hour journey from Cairo – but town authorities are locking horns with Neamatalla and want to build an international airport to make it easier for more tourists to visit the oasis. It could be that the authorities have been inspired by one of Egypt's more typical tourist developments, such as the Gouna project on the Red Sea coast, which is home to international hotels, shopping malls and hundreds of enormous villas that provide thousands of jobs. Indeed, Neamatalla faces a faction which believes more economic development to lift Siwans out of poverty shouldn't be thwarted, even if it means damaging Siwa's resource-strapped environment.

Neamatalla's view? "We would be ruined," he says, when thinking about the proposed development plans.

Whatever side of that debate one falls on, Neamatalla's Siwa project is a promising way forward for Egyptian tourism, which attracted more than 10 million people and about \$11 billion of revenue to the country in 2008. Neamatalla's proponents say his business model is worth replicating, not only in Egypt, but also other parts of the Middle East.

His initial intention wasn't for Adrère Amellal and its sister developments to follow a particular sustainability standard, but rather to help attract a controlled number of visitors to experience the local life of Siwa. To that end, his development has been a success. But a number of factors – not only social and ecological, but also political – are important when sizing up the impact of projects such as Siwa.

In It Together

Until the mid-1980s, Siwa was isolated from the rest of the country without even a paved road providing access to the oasis. Because of this isolation, it was a close-knit society underpinned by conservative norms and community-based decision making. It is with – not against – this culture that EQI has aimed to develop its projects.

After all, one of the largest selling points for visitors is the local culture. That's why Neamatalla has insisted on keeping the architecture of his developments in the local style, while encouraging the development of the local crafts movement and employing Siwans rather than importing employees from other parts of Egypt, even if that may require more training.

EQI directly and indirectly employs 600 locals, and has rolled out programs tailored to women who are

unable to work outside their homes because of Siwa's conservative culture. Neamatalla takes a personal interest in supporting the entrepreneurial initiatives of his employees, most of whom only have a primary school education. That often means nurturing staff with managerial potential, such as the manager of one of Neamatalla's hotels in central Siwa, whose illiteracy hasn't stopped him from being able to make the hotel profitable.

The impact on the environment has been mixed. Although its hotels use little to no electricity, are built almost entirely with local natural materials, and have systems set up to deal with biodegradable waste, EQI says some eco-projects – such as recycling programs for metal, plastic or glass – are still works in progress.

Water management is a particularly thorny issue. Visitors to EQI's establishments have unlimited bathing water and bottled drinking water. "Guests expect a minimum level of comfort. We can't have them shower with buckets and charge them \$300 a night," says Mounir Nakhla, Neamatalla's nephew and EQI's managing director. Some EQI hotels are fortunate to be near springs that flow naturally without the aid of man-made pumps. However, in most of Siwa, diminishing water resources is a highly pressing issue, which EQI has not addressed.

Since its arrival in Siwa, EQI has engaged with local political decision-making and seeks stakeholder input. However, there's concern that if an airport is built and outside developers gain economic power, the political system may shift from responding to local residents' interests to those of profit-driven resort and hotel developers. Although Siwa's political process has been one of community consensus, some Siwans fear that with more jobs – not to mention tax revenues – on offer by the developers, the locals will be swayed to support the developers, who in turn will become more empowered to influence life in Siwa.

High Prices, Low Risks

Siwa is attracting the interest of not only developers, but also Egypt's investor community. Consider business angel Ashraf Zaki. After leaving his job as managing director of investment bank EFG-Hermes, Zaki became a business partner with his friend, Nakhla, after he heard about the Siwa project. "I liked the environmentally friendly product, because it's an area I was interested in," says Zaki, an avid environmentalist. "Plus, the numbers made sense."

He has a point about the numbers. Eco-lodges like Adrère Amellal are relatively low-cost enterprises, and are profitable even with an average yearly occupancy rate significantly below the country's industry average. "In the Four Seasons in Cairo, you might be at 30% occupancy and you'd be losing money. Its fixed costs are huge," says Nakhla. "When we do not have guests, we still pay salaries and we can go enjoy the eco-lodge ourselves. We don't have high fixed costs."

With EBITDA of 27% of revenue, EQI's eco-lodges might at first glance look like an attractive investment with low risks. But that doesn't tell the whole story. From an investor's perspective, says Zaki, the big issue is how scalable and replicable its model is, not only in Egypt, but also globally. "Right now, the business is profitable, but can we replicate it elsewhere to make more profit? Can we find a place as magical as Siwa, which enjoys a local culture that travelers are seeking?"

Admittedly, much of EQI's success in Siwa to date is attributable to the absence of competition. Despite the fact that conventional wisdom says consumers reap more benefits from competitive markets with a lot of competition rather than monopolies, the only way the oasis could be preserved for visitors' enjoyment is by having no or very limited competition. Low prices driven by competition would increase the influx of visitors and ultimately strain the oasis' natural resources.

But, Nakhla notes, "I am not against competition. In fact, I welcome it provided our competitors appreciate the [environmental and cultural] sensitivity of the oasis." Imagine Siwa with 10 Adrère Amellals, he says. "Our occupancy would most likely increase because we would benefit from our competitors' marketing. It's like Ibiza or Sharm el Sheikh. Competition isn't harmful. But building luxury hotels with marble bathrooms or budget hotels at \$30 a night and bringing tourists in large buses would not only destroy Siwa's character but, more importantly, would drain the oasis." As he notes, one way to control mass tourism is to set prices high. It could also require the government to impose new regulations. Yet if Siwa were to turn into a mass-tourism destination, one consolation for EOI would be that it could sell the 74 acres of land it purchased from the government at a very cheap price to build its hotels.

Copy This

The ability to replicate Siwa's business models will be critical to environmentally sustainable tourism in Egypt. Even in an eco-lodge market that is expected to grow significantly, success depends on several criteria, many outside the control of an eco-lodge owner: the implementation of zoning laws, low-cost marketing, the trust of the indigenous population and a close relationship with the government.

While countries such as Jordan, Israel and Lebanon are home to eco-lodges, the concept of eco-tourism is less prevalent in the Middle East than in other developing regions, such as East Africa and South America. A feasibility study is crucial to see whether the model can be replicated, although there is currently no commonly used methodology to do so.

According to Neamatalla, the Siwa development is "very profitable...and replicable." In terms of the latter, he cites two of his new ventures in upper and lower Egypt. Much of the success of his model, he notes, has been based on the availability of cheap

land with spectacular natural landscape. In this regard, the government's cooperation, both local and national, has been vital. Neamatalla purchases land directly from the Egyptian government, which subsequently parcels the land into zones that can be used for commercial tourism.

But many protectorates where eco-lodges are located can only be leased rather than purchased from the government. Adding further risk to the business model is that in developing countries, governments – pressured by structural-adjustment programs and debt-interest payments – often limit funding and incentives for conservation. Despite this, several Middle Eastern governments, including Egypt's, have moved environmental protection and sustainability higher up on their agendas, creating new protectorates to safeguard their natural heritage.

Today, Egypt has 27 protectorates covering 15% of the country, with each preserving indigenous populations and wildlife, including mangrove trees, wetlands and whale sharks. Such conservation efforts are a particularly positive sign for small and mid-sized eco-tourism companies.

Another important element of the Siwa model is its pricing. Unlike over the 70% of eco-lodges worldwide that charge less than \$50 USD a night, Adrère Amellal rates are on the high end of conventional four star hotels. In addition, more than 80% of the world's eco-lodges are located in biodiversity hotspots, containing hundreds if not thousands of species of vascular plants and at least 70% of the original habitat. The Middle East has no such areas. Different branding differentiates Siwa from the standard eco-model and elevates its positioning in the accommodation category.

Accordingly, Siwa does not follow the traditional eco-lodge model in that it requires the preservation of an indigenous community, which Neamatalla claims is the oasis's asset. "Travelers come to see

indigenous communities – to hear about their culture, marriages, kinship, tribes and traditions." EQI's strong bond with the local workforce also makes it different than other eco-lodges. As Neamatalla notes, "In Siwa, we were one of the very few companies that were able to work with the locals and not recruit employees from Cairo to run the hotel. We trained the Siw[an]s.... It's not just a professional relationship; it's more a mentorship."

It's hard also for EQI to turn to bigger players in the sector for tips on developing a sustainable model. "Our perception of travel is very different. Theirs is a cookie-cutter [approach]," Neamatalla says, contrasting his lodges with the hotel chains that dominate the region. "If you read the travel books of the 1920s, you see a traveler who is expecting nothing. He's ready for surprises, for adventures, for the unknown. Today, people travel to the known, and this takes away from the experience.... This is how we differentiate ourselves."

Marketing at Adrère Amellal simply involves inviting tour operators and other key people to be guests at the lodge and relying on word of mouth. Mass marketing is out of the question for small and mid-sized enterprises like EQI, not only due to prohibitive costs, but also the need to limit the number of visitors in their protected areas.

Barriers to development range from the lack of infrastructure to the public sector's low understanding of eco-tourism to the high risk of failure. The latter is perhaps the greatest threat: Most eco-lodges are small and mid-sized enterprises that face an 80% failure rate. In addition, tourism is highly correlated with the political stability and security of a region, a particularly tricky issue to address amid the volatility of the Middle East.

Pointing the Way

While Siwa's environmental impact – negative or positive – is open to debate, it's hard to argue with

the fact that Neamatalla has created a new and sustainable model for tourism development in the Middle East. But how much of EQI's success is personality driven? The lodge is essentially synonymous with the larger-than-life personality of its founder. Erudite and charming, Neamatalla – who received a PhD in environmental health and quality management from Columbia University – mesmerizes guests in fluent English, French and Arabic with his vast knowledge of philosophy, economics and politics. It's also not unusual to find him on walks in Siwa or in deep discussion with the lodge's staff, offering his advice as well as getting their feedback. In addition, he is well-connected, counting ambassadors, billionaire businessmen and artists - Siwa's target clientele - as friends and associates. In other words, Neamatalla is a tourist attraction in his own right.

If awareness about the environment is slowly changing in the Middle East, Neamatalla, with his extensive network, is surely one of the reasons why. Government and popular support for environmental sustainability in the region must change before Siwa's success can be replicated. Unfortunately, the oasis is not enjoyed by a broad enough cross-section of Egyptian society to drive meaningful change in public attitudes. But there are signs that these attitudes are changing and that Siwa can be a model for future eco-tourisms ventures.

This article was written by Nadim Alameddine, Nushin Alloo, Claire Johnson and Will Rasmussen, members of the Lauder Institute at the Wharton School



The Brazilian Consumer: Opportunities and Challenges

For 15 years, Brazil has ridden an unprecedented wave of consumption growth throughout its socioeconomic pyramid. The era has been marked by the emergence of a new middle class and of companies looking for ways to address this market. Yet as Brazil's middle class continues to emerge, companies will have to define their target consumers more accurately, refine their strategies and make organizational adjustments adequate to meet unique segment-specific demands.

For 15 years, Brazil has ridden an unprecedented wave of consumption growth throughout its socioeconomic pyramid. This period has been marked by the emergence of a new middle class and of companies finding ways to address this market. At the same time, a number of consumer goods companies have flourished, employing successful, relatively basic entry strategies. These strategies offer important lessons for other companies seeking to meet the increasing demands of a new group of consumers. Since the turn of the millennium, Brazil has been widely regarded as ready to realize its promise as the "country of tomorrow," and the relatively well-known success stories to date have only added to Brazil's reputation as an attractive growth market.

Despite its rapid growth, the Brazilian consumer market is a complex landscape that could challenge companies as competition increases in the future and the behaviors of Brazilian consumers become more relevant (and, consequently, more important in defining strategy). As the Brazilian middle class continues to emerge, companies will have to define their target consumers more accurately, refine their strategies and make organizational adjustments

adequate to meet unique segment-specific demands. As Julian Gadano, CEO of Region 4, a Latin American research firm, notes, "The emerging consumer market in Brazil has become so large that brand managers can no longer sleep if they are not confident in their approach to this specific segment."

Several vital questions emerge in attempting to understand these trends and issues: What developments are behind the rise of the new Brazilian middle class? How have companies been involved in this development? And what strategies and tactics should companies consider when addressing this segment?

Defining the Opportunity

The first challenge for companies doing business in Brazil arises as soon as one tries to define the consumers. Despite the undeniable growth of this new middle class, there seems to be a significant discrepancy in defining the group in question. The Brazilian Statistics Agency (IBGE) recently redefined the country's economic classes, based on average monthly income per capita, as: Class A1: above R\$9,734 or US\$4,874 (R\$14,400 or US\$7,211 on average, 1% of the population); Class A2:

R\$6,564-R\$9,734 or US\$3,287 to \$4,874 (R\$8,100 or US\$4,056 on average, 4% of the population) Class B1: R\$3,480-R\$6,564 (R\$4,600 on average, 9% of the population); Class B2: R\$2,012-R\$3,480 (R\$2,300 on average, 15% of the population); Class C1: R\$1,194-R\$2,012 (R\$1,400 on average, 21% of the population); Class C2: R\$726-R\$1,194 (R\$950 on average, 22% of the population); Class D: R\$484-R\$726 (R\$620 on average, 25% of the population); and Class E: R\$276-R\$484 (R\$440 on average, 3% of the population).

Even after this official redefinition, which introduced sub-classes (namely, the subdivision of Class C), various entities continue to define the socio-economic pyramid in different ways. For example, the Brazilian Central Bank considers Class C households as those with a monthly income between R\$726 and R\$1,195, and states that they account for 46% of total Brazilian households. Another differing perspective is given by the Getúlio Vargas Foundation, which considers "middle-class households" as those whose monthly income is between R\$3,800 and R\$7,600 and notes that they represent up to 54% of total households. Apart from the fact that these definitions are based on household rather than population figures, both clearly contradict the official IBGE figures, which define Classes C1 and C2 as those that account for only 43% of the total population and have a monthly income between R\$726 and R\$2,012.

The lack of a clear and homogeneous segmentation of the Brazilian consumer base is problematic for companies trying to address the emerging consumers. Not only does it increase the companies' level of uncertainty when assessing market attractiveness, but it also makes it harder for them to define precisely the main characteristics of their target segments and leverage company data to create more complex and insightful customer segmentations. As Wladimir Gomes, a senior partner from Bain, notes, "Splitting social classes

solely on income ignores highly important factors. More significant are consuming patterns and habits, which are driven by what the household already possesses, and which help explain consumers' next needs and moves." To truly understand the needs that should drive corporate strategy, it is important to understand the evolution of this consumer class to date.

A Middle Class in 15 Years

The dynamic evolution of socio-economic classes, as a result of a plethora of political and economic developments, is one of the primary constraints on establishing a consensus on defining the tiers. In the past two years alone, more than 23 million people rose into Class C, and their economic activity ballooned: 10 million people gained Internet access between 2005 and 2007, car sales soared 28% in 2008 and mortgage lending rose 26.5%.

These developments were made possible by the political and economic reforms implemented by the Collor de Mello, Cardoso and Lula administrations, which brought Brazilian consumers and companies a formerly unknown degree of stability. Previously, particularly during the 1980s, rampant inflation and high import tariffs constrained buying power. Consequently, consumption remained concentrated in basic goods. National retail and consumer goods companies were equally constrained, and the import activity of international firms was essentially nonexistent. National firms focused on providing basic and medium-grade goods to Classes A and B – and at relatively high prices due to both their inability to invest in efficiency and a lack of competition. Most companies were regional or even local, and the majority focused entirely on the southern and southeastern regions of the country.

The 1994 Plano Real, a currency stabilization plan, was a pivotal factor in establishing Brazil's modern middle class. The plan was highly successful in its goals of eliminating price indexation and

controlling inflation. Complementary institutional reforms, such as the passage of legislation setting the institutional framework necessary for creating mortgage lending and securitization, demonstrated a commitment to predictability that allowed consumers to plan their spending.

Consequently, corporate planners could build and refine business plans like never before, and the lowering of import tariffs provided additional incentivization (at the risk of losing out to international entrants). Nowhere was this more apparent than in consumer goods/retail companies where, in 1995 alone, sales ballooned 17%. According to Jose Carlos Reis Magalhães, CEO of Tarpon, a Brazilian hedge fund with significant investments in retail, the lifting of import regulations and increased internal competition allowed international entrants to bring improvements in operational efficiency that drove profound transformations among the majority of national companies. From technology to distribution to internal restructuring and efficiency, retail companies in the late 1990s focused on lowering costs to survive in a more competitive market. Although the companies were merely reacting to short-term forces, these very changes set the stage for addressing the emerging middle class more significantly in the future.

Equally important was the boom in credit over the last 15 years. Consumers needed to finance their growing purchases, and companies sought ways to further penetrate the market. In 1995, easing credit restrictions stimulated the first loans for white-goods purchases, which grew by some 34% in 1996. Companies, thus, were not only able to offer financing options to their consumers, but also to finance their own growth and restructuring, facilitating even further growth. Subsequent structural reforms led to an explosion in consumer lending during the Lula administration: Between 2002 and 2006, the number of credit cards in Brazil

rose 91% to 79 million, or about 1 for every 2.3 people. New forms of financing emerged, such as payroll lending, which grew 150% in three years. Overall, credit assets grew 27% per annum from 2004 to 2008.

Such economic changes created a consumption-focused class. With the confluence of these developments, companies began to cater to the burgeoning consumer segment. The speed at which this segment grew meant that innovation was not paramount to initial success. Going forward, as the segment attracts further competition, a rudimentary entry strategy must soon be replaced by a refined and sustainable strategy. First, however, companies must attain a true understanding of this giant segment.

However, according to consultants, understanding the economic profiles of these consumers is merely an initial step. Companies must then analyze consumer habits and winning strategies to develop more effective competitive advantages and attain a sustainable foothold in their newest target segments.

A New Approach

Two of the most pronounced approaches by successful first movers in the new Brazilian consumer market have been the very consumer centricity mentioned previously (e.g., incorporation of consumer habits, lifestyles, etc.) and a more diversified distribution strategy.

As a Booz & Co. market study suggests, companies targeting the new Brazilian middle-class consumers often think of them as a poorer version of those who fall under Classes A and B, which could not be further from the truth. Emerging middle-class consumers differ from those in the upper tiers of the socio-economic pyramid in ways far more significant than mere income.

The products that have succeeded in this segment are those that address the particular needs

stemming from the target customers' day-to-day realities. For example, Unilever recognized that washing was a major social event for women in rural areas and adjusted its market positioning accordingly. Recognizing that powdered soap – typically used in machine washing – was not used in this community, the company quickly made a widespread adjustment to promote its bar soap product and saw a rapid increase in sales. Another important observation is that consumers in this class are significantly more brand-loyal and care more about quality than typically thought (rather than being solely price-driven). Quality matters because these consumers do not have enough disposable income to try out different products (running the risk of buying a product that does not solve their specific needs the first time around).

According to Ismael Gilio, sector specialist of the Inter-American Development Bank in Brazil, consumers often buy the higher priced of a set of comparable products or even products that have a status component, such as energy drinks or colognes. Based on these insights, major consumer goods companies have launched smaller and adapted versions of successful products to meet their lower-end consumers' needs. These new products, however, typically have been launched under new brand names and with different packaging to protect the positioning of the companies' mid-to-high-end brands.

The key for creating a successful pricing strategy is the ability to offer products with price points that match the middle class consumers' limited out-of-pocket possibilities, rather than simply cutting prices. This class often associates cheaper products with bad quality. Furthermore, products that reduce per-unit costs by offering larger quantities frequently do not meet the needs of these consumers, who often opt for smaller-sized but more expensive per-unit products that offer a l ower absolute cost (their key spending constraint).

Successful companies adapt to these conditions by either reducing the size of their products or splitting the price in multiple monthly installments. For example, the Brazilian retailer Fast Shop offers the Brastemp 419L refrigerator for R\$3,594 (US\$1,800) as a one-time payment or in 12 monthly installments of R\$339 (\$170), which yields an all-in price of R\$4,076 or \$2,041 (suggesting a 27% annual interest rate). The latter strategy makes sense for many companies as it allows them to reach more consumers and extract more profit per consumer. Delinquency typically remains low.

Reaching the Consumer

Amid a changing retail environment, consumer goods companies are employing two main approaches to reach the new middle-class retail market in Brazil: selling through smaller-sized stores and creating exclusive distribution networks.

A distinct bipolarization of the Brazilian retail store format is taking place. Larger players are growing organically and consolidating, while smaller local stores are increasingly relied upon to meet more of local shoppers' daily needs. For example, Wal-Mart has acquired many medium-sized regional retailers such as Bompreço and Sonae, while Pão de Açúcar, one of Brazil's largest retail chains, has bought other specialist retailers such as Ponto Frio.

The emerging consumers in Brazil are likely to continue buying in small neighborhood stores in addition to (or in place of) hypermarkets. Previously, hypermarkets enabled consumers to make large purchases in one location to guard against inflation. However, as inflation has been controlled, high transport costs have reduced this trend. According to "How to Create Value for Emerging Consumers," published by Guillermo D'Andrea in the Latin American edition of Harvard Business Review, the discount offered by hypermarkets relative to local stores should be around 25%. The benefits hypermarkets offer

consumers not living in close proximity have been reduced, making shopping at the small local stores more attractive.

Even multinational retailers are changing their store formats to meet these trends. Carrefour has established Bairro, a low-cost neighborhood alternative; and Wal-Mart has rolled out its Todo Dia stores, a smaller specialized version of its Supercenters where "everyday low prices" continue to be the imperative.

Consumer goods companies recognize these trends and are increasingly focusing their sales efforts on these smaller stores. In addition, they are moving toward using exclusive distributors to reach these smaller and more dispersed stores and to increase their bargaining power over the larger retail chains. Carlos Trostli, former CEO of Reckitt Benckiser in South America, notes, "Although having exclusive distributors may bear higher costs, they are more than offset by the margin gains resulting from increased bargaining power. Negotiating with exclusive distributors is more valuable to companies than negotiating with multi-product wholesalers or large retailers." Furthermore, according to Trostli, "exclusive distributors are more open to initial stage tests and trials, allowing them to better manage and innovate their product portfolios."

The emerging consumers in Brazil represent a significant opportunity for both international and domestic companies seeking to expand their consumer base. As Trostli states, "Five years ago, Class C was considered a niche market, and Classes A and B the market. Now, Classes A and B have become the niche, and Class C the market [with 43% of the population]." More companies are competing for the emerging consumer's wallet. As Gílio points out, "As of today, all major companies operating in the Brazilian market are preparing or have already prepared a set of products and services to address the specific needs of the Brazilian emerging consumers."

Nonetheless, it is clear to experts that for retail companies to take advantage of this shift, merely utilizing strategies initially used to target higher-end segments will be insufficient. Detailed consumer segmentations, followed by specifically tailored products, innovative pricing formulas, and complex distribution systems, they say, are necessary to appeal to the emerging consumers. Addressing the Brazilian emerging consumer brings significant promise. Holistic solutions and products must be tailored to the unique needs of the Brazilian Class C consumers for companies to be successful.

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Will New Mobile Internet Strategy in Latin America Pay Off for Spain's Telefónica?

Spain's Telefónica, the fourth-largest mobile-phone operator worldwide, has been expertly expanding in Latin America's liberalizing telecoms sector over the past 20 years. Amid myriad regulations, unwelcoming business conditions and ferocious competition, its Latin American conquest has been a true test of its strategic acumen, tenacity and agility. Now the \leq 57.95 billion telco is poised to capitalize on the opportunities that mobile Internet brings. Can it succeed?

The advent of mobile broadband is revolutionizing Latin America's telecommunications business while changing the way people live and connect with each other. Telecom operators have already shifted their focus from traditional areas of growth to mobile Internet and value-added services, which will not only benefit customers in metropolitan areas, but also allow Latin America's rural population to take advantage of all the Internet has to offer. Spain's €57.95 billion (US\$80.99 billion) Telefónica, the fourth-largest mobile operator worldwide, has been expertly expanding in Latin America over the past 20 years and currently leads mobile subscriptions in several key markets of the region, including Brazil, Chile and Peru. Through its experience in these markets, the company is now poised to capitalize on the opportunities that mobile Internet brings.

A Window of Opportunity

Telefónica was founded in 1924 as Spain's sole telephone service provider to help connect the nation's disparate voice networks. After being nationalized by the government in 1945, the company was heavily regulated until it was privatized in 1997.

Before that, in the 1980s, Spain's network lagged behind those of neighboring countries, and Telefónica had a huge backlog of customers waiting for connections. The company had no choice but to rapidly modernize the country's voice networks. With limited capital available in Spain to help it do this, Telefónica went abroad for funding, tapping international markets and eventually attaining a prominence required to trade on major stock exchanges. It then modernized Spain's fixed-line voice network in an astonishingly short time, a feat that Latin American governments would later view favorably when the telco bid to develop their national voice networks. As Spain joined Europe's economic community and its member states deregulated their telecom industries, Telefónica adopted an outward-looking policy in order to stay competitive.

In the early 1990s, Latin American telecom sectors underwent a wave of liberalization and

privatizations, amid their governments' acknowledgement that competition would ultimately lower the price of services in their countries. Telefónica seemed a natural candidate to develop national networks rapidly given its success in Spain, not to mention the shared culture and language allowing it to begin operations in Latin America with minimum disruption. What's more, its familiarity with navigating Spain's highly regulated markets and knowledge of reform processes allowed it to operate in the fast-changing, but still challenging, political environments of this promising region. For its part, Telefónica recognized that Latin America's underexploited market had high growth potential, especially if it could position itself as a significant regional market leader.

After the first wave of acquisitions, Telefónica shifted from a multi-domestic strategy, in which each country was separately managed, to a transnational strategy, so that the operator integrated networks and services across borders. It was subsequently reorganized along business lines to enable the firm to be innovative in multiple markets more easily. By the late 1990s, Telefónica had invested nearly \$11 billion in Latin America and controlled almost 40% of the telecom market. With some notable exceptions, such as Mexico, Telefónica has established itself as today's market leader across the region.

The Shift to Mobile Internet

Its successful expansion in the region was driven primarily by its deployment of fixed-line voice networks. But this market began to saturate not long after Telefónica's entry and continues today. "Today's youth are 'digital natives' who don't just want to communicate but want to be constantly in touch and connected," notes Gonzalo Martín-Villa, a Telefónica executive. "While they use the latest technology to interact, play games, work and chat with friends, they are increasingly using new digital content and mobile applications that necessitate

access to a high-speed fixed and mobile connection from anywhere, at any time."

As a result, Telefónica and other telcos moved into the emerging mobile voice market. Today, the mobile penetration rate of the region is 80%, compared with 58% worldwide average. Some countries, such as Argentina, have penetration rates greater than 100%. The widespread use of low-obligation pre-pay or pay-as-you-go phone plans in lieu of the common long-term contract system used in countries such as the U.S., has helped considerably.

However, as José María Sanz Magallón, CEO of Telefónica USA, concedes, "Mobile markets are evolving very quickly. The growth of the mobile voice market is decreasing and we are looking to the next expected boom area – mobile broadband and value-added data services."

Mobile broadband, or mobile Internet, allows users of smart cell phones to access data services over high-speed mobile networks – such as 3G – to access email, download music, read news, make purchases, view maps or use myriad other online tools. As a result, telcos are investing heavily to build the high-speed mobile infrastructure required to deliver these services. "As more high-speed mobile networks are deployed and customers gain access to a wider variety of compatible devices, value-added data services will become increasingly important to mobile operator bottom lines," says Tammy Parker, principal analyst at Informa Telecoms & Media, a U.K.-based research company. Mobile Internet will also address the lack of domestic broadband connectivity in rural areas of Latin America that have no access to fixed-line infrastructure.

Sharing a Piece of the Pie

Generally, each Latin American country's telecom market consists of two or three major operators, with the new owners of former state-owned enterprises often holding the greatest market share. Telefónica and América Móvil, a Mexican firm that is one of Telefónica's primary competitors, have emerged as the dominant players, sharing roughly two-thirds of the market between them.

Telefónica earned its leading position in Latin America by leveraging past experience in its home market. Along the way, it developed important competitive advantages over its regional rivals, such as its expertise in rapidly developing and modernizing telecommunications networks in challenging markets; its ability to work with regional governments; and an ability to effectively acquire, integrate and partner with other firms. These skills will serve Telefónica well as it takes on the mobile Internet boom.

Telefónica has grown both organically and through a combination of small and large acquisitions. The latter includes the landmark multi-country purchase in 2004 of Bell South's Latin American assets for \$5.85 billion, which increased Telefónica's mobile subscriber base by 143%. The company continues to pursue acquisitions as it moves across borders in Latin America and, more recently, in Europe. This acquisition strategy is expected to continue as Telefónica diversifies further into the mobile Internet market.

Acquisition strategies in the telecom market over the last decade have yielded a few large, vertically integrated firms, such as Telefónica, which handle everything from networking and infrastructure to managing customers and content. However, the boundaries of the competitive landscape have blurred as the proliferation of smartphones and mobile Internet is challenging the entire industry to rethink business models. Telecoms now compete and collaborate with technology and content firms, such as Facebook, Google and Yahoo in mobile Internet. Consequently, many firms have moved to a "partnership model," in which they outsource parts

of their business to other firms that can handle them more efficiently from the perspective of cost and know-how. Strategic alliances with content and application providers help to cut costs and are crucial for gaining first-mover advantage by bringing new mobile Internet services to market quickly.

One such important alliance is Telefónica's recent collaboration with Chinese telecom provider Huawei to deploy a service delivery platform (SDP) solution in 13 countries. The platform will allow Telefónica to deliver new value-added data services in the shortest time possible across Latin America, ultimately reducing operating costs. Telefónica also signed an agreement with the British application developer SpinVox to provide Latin America's first service that automatically converts voice messages to text messages sent to a subscriber's phone. The service will be rolled out in 12 Latin American countries and is already configured to identify regional variants of Spanish and Portuguese.

However, to reap the benefits of these strategic alliances, telcos must overcome the challenges of mobile Internet adoption. Heavy investments are being poured into high-speed mobile networks, and operators expect a pay-off; but consumers' understanding of the benefits of mobile broadband is still low. Operators are likely to encourage adoption by offering subscribers low-commitment, pay-as-you-go data plans which are already popular in the voice market. But significant marketing initiatives will also be required to address adoption issues.

In a region where socio-economic disparities are prevalent, Telefónica has demonstrated a long-term commitment to educating both children and adults from lower socio-economic backgrounds. While the programs under its socially responsible umbrella foundation, Fundación Telefónica, have had positive social impacts as their mission, they are also

addressing the adoption issue by preparing future consumers to use the services that Telefónica can offer, such as mobile broadband. "We have recently launched a program called Conéctame," says Sanz Magallón, "which aims to confront this very issue by improving literacy in both rural and urban populations." Such initiatives will be crucial for promoting long-term growth in the mobile Internet market.

The Underserved Markets

The regulatory environment in Latin America is also an important consideration. Since the start of the privatization wave, large operators like Telefónica and América Móvil have expanded their market share, virtually unchallenged by government regulation or competitors. Although most of the market share remains in the hands of smaller operators and national companies, some anticipate that a clear duopoly will emerge soon. In this climate, a unified regulatory policy could spread across Latin America, which will aim to control the anticipated collusion of the two huge telecoms.

However, regional governments are already leveraging the investment power of these giants by incentivizing or even requiring that they devote a portion of their revenues to infrastructure development. As a result, Telefónica and others are now building extensive mobile networks in the vast rural areas of Latin America. Though these investments increase future revenue growth potential in the long term, Telefónica must find a means to offset the initial investment costs in the short term. From social and governmental perspectives, the investments open an avenue for important economic development by finally bringing Internet and other communication technologies to rural populations.

As far back as 1995, Chile, a country that has the least restrictive regulatory environment in Latin America, has pioneered the practice of awarding

subsidies to telecom operators that agree to extend networks to rural areas. In its footsteps, a recent example of a government influencing this type of infrastructure development is Brazil, which auctioned the rights to its 3G network at fair prices to all existing operators, including Telefónica, on the condition that they roll out extensive networks in underserved rural and urban areas.

Telefónica has embraced the trend for two reasons. First, due to the saturation of mobile and broadband subscribers in many urban markets, it has been seeing a significant slowdown in new subscribers. The underserved areas are essentially a new growth market. Second, mobile technologies offer an alternative to building a traditional fixed-line infrastructure. Because many of the underserved are scattered across remote areas, deployment of physical lines to each and every household is challenging. In contrast, the infrastructure required to support an expansive high-speed mobile network is relatively cheap and easy to implement despite the challenging terrain and fragmented customer base.

This development will open previously untapped markets to the telecom industry and advance efforts to extend the reach of the Internet into underserved areas. "Fixed broadband penetration is limited in Latin America," notes Marco Quatorze, director of value-added services at América Móvil. "With the mobile, we are offering many people their first experience of personal Internet access, which is really important because the Internet is a necessity, not a luxury, in the 21st century." With that in mind, many of these new customers will have their first reliable, personal access to email, news and real-time market prices of the agriculture that they rely on for their livelihoods.

From a revenue perspective, the trend has a downside. Despite costing much less to deploy than fixed-line infrastructure, high-speed mobile networks still carry a much higher per-customer deployment cost in rural areas than in urban areas. Furthermore, while new subscribers will expand the operators' customer base and drive revenue growth, their current purchasing power will mean lower potential revenues in the short term.

However, for Telefónica, a company expressing a strong commitment to social responsibility, the challenges can also be competitive advantages. In its latest annual corporate social responsibility report, this investment is featured prominently as a way to help close the "digital divide." Approximately 47% of this investment has gone into Latin America, with €162 million being dedicated to universal service projects in Argentina, Brazil, Columbia, Peru and Venezuela.

Telefónica is well positioned to capitalize on the long-term investments it has made in Latin American. Its competitive strategy has evolved from the privatization era to strategic acquisitions.

Today's partnership model has adapted to a dynamic industry that has moved from the copper fixed-line networks of the 20th century to the mobile broadband networks of the 21st century. What's more, its commitment to bridging the digital divide is not only part of its focus in terms of corporate social responsibility, but also a key avenue for collaboration with governments responsible for setting regulatory policies that are both unpredictable and increasingly restrictive.

Telefónica's ability to succeed in Latin America by attaining breakthrough levels of adoption of mobile Internet technologies will be the foundation for attaining further success globally as it expands its strong position in Europe and explores new emerging markets.

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Spain's Caja Navarra: Banking on Community Spirit

In the aftermath of the worst financial crisis in recent memory, banks are more often vilified than praised. But in one heretofore low-profile part of the sector, Spain's Caja de Ahorros de Navarra (CAN) is causing a stir with its innovative model of "civic banking," which empowers customers to have a say in how the bank – and its numerous philanthropic initiatives – are run. Now it wants to introduce its style of civic banking to the other side of the Atlantic.

In the aftermath of the worst financial crisis in recent memory – exacerbated by a financial services sector now exposed for its brazen disregard for the interests of its stakeholders – banks are more often vilified than praised. But in one heretofore low-profile part of the sector, Spain's Caja de Ahorros de Navarra (CAN) is causing a stir with its innovative model of "civic banking," which empowers customers to have a say in how the bank – and its numerous philanthropic initiatives – are run. Zeroing in on the public's growing interest in non-profit and social enterprises, CAN has been inverting the traditional client-banker relationship in order to put its customers' interests first and its money-making prowess second.

CAN originated in Pamplona – the Spanish city most known for its annual running of the bulls fiesta – and is one of the country's 46 *cajas de ahorros*, or savings banks. What makes these banks unusual is that they are government-sponsored regional businesses, which are required to donate some of their profits to community and social-welfare initiatives.

Since launching a new strategy six years ago that CEO Enrique Goñi describes as "rights for the customers and duties for the bankers," CAN has amplified its social responsibility initiatives, dedicating about 30% of its annual profit to public service projects. It also has been honing a policy of providing its customers with unparalleled transparency and input into the investments made in those projects. The way CAN sees it, the focus on civic banking gives it a competitive advantage, and it has the numbers to prove it. It is ranked among Spain's top savings banks in terms of return on investment, return on assets and profit after taxes. Furthermore, despite the recession, CAN's cash flow is forecast to increase to nearly 400 million euro in 2009 from 311 million euro in 2008, according to Goñi.

Lending a Hand

Unlike run-of-the-mill banks, CAN and the other *cajas* have no shareholders. A *caja*'s governing body is made up, in part, of local political authorities, which exert a great deal of influence over how profits are allocated. In the past, this shackled a *caja* to government institutions, often hampering growth prospects.

The original *cajas* were spun out of Spain's *Montes de Piedad* (or "Mounts of Piety"), charitable organizations – typically organized by the Catholic church or other civic organizations – for people needing to pawn unwanted goods. By the 18th century, the *Montes de Piedad* began using their proceeds to provide small, interest-free loans to disenfranchised families who would otherwise be subject to the usurious terms of independent lenders. The loans were often the only way families teetering on the brink of poverty could cover, not only basic living needs, but also the costs of setting up and running their businesses.

Today, the *cajas* account for approximately 50% of bank loans and deposits in Spain. Almost every province has at least one regional chain of *cajas*. While a number of them have a national presence, the institutions remain very regionally focused, largely as a result of the principle of territoriality introduced during Francisco Franco's dictatorship some 50 years ago, which restricted savings banks to operate only within their own regions. While the *cajas* share the same legal origins and socially focused mission, each has the flexibility to decide the amount and benefactors of its donations.

CAN is the result of a merger in early 2000 of Caja de Ahorros & Monte de Piedad (founded in 1872) and Caja de Ahorros de Navarra (founded in 1921), both hailing from Spain's Navarra province and from similar business models. It was in 2002, when a new group of executives was appointed, that a corporate strategy emphasizing civic banking was launched. "We have an obligation to both our clients and community to provide the highest level of transparency in what we do," says Teresa Sádaba, CAN's international relations director. "It is so important to us to be the only *caja* that lets our customers have control of how we invest their money and which organizations receive the benefits of our investments."

Crystal Clear Communication

According to Sádaba, adherence to its customers' "bill of rights" has helped CAN establish a strong foothold in over 10 of Spain's 50 provinces and earned it a number of accolades, including a Five Stars for Excellence award from the non-profit, European Foundation for Quality Management.

One of CAN's most distinguishing characteristics is that customers are kept informed about what happens with their deposits. "At most banks, clients deposit their money and receive a monthly statement that shows their account balance. However, they don't have any idea what the bank is doing with their money," Sádaba notes. In contrast, CAN provides web-accessible reports about the financial return on all its investments. The reports show how much money the bank has earned with an individual client's assets in a given period. In addition, clients can see a breakdown of how CAN has managed the funds: For example, 1.3 billion euro of loans in 2008 helped finance education and various purchases, such as cars, for its younger customers.

Consistent with this mission, CAN signed an agreement in September 2009 with the European Investment Bank (EIB), the European Union's lending institution, to join forces and provide 300 million euro of funding to small businesses. "It is our duty to stand by our customers," Goñistates. "It is no coincidence that [small and midsized enterprises] account for 40% of our balance sheet. In the current economic circumstances, we have to do everything possible to provide them with the necessary finance."

CAN doesn't work alone. It has cultivated a network of over 2,000 non-governmental organizations (NGOs) and public-sector organizations that undertake almost 4,000 projects. But the network is not just a way to promote philanthropy. It also is a marketing and customer-recruitment device. As

Sádaba notes, "Schools, churches and non-profits have their own list of members and we have become their main source of fund-raising." A university, for example, will call up alumni and ask whether they are members of CAN. The relationship is symbiotic, she says. Of the 90,000 new clients projected for 2010, 65,000 are expected to come from NGO referrals.

Beginning with a pilot in 2002, CAN has developed a system in which programs are evaluated, selected and managed in CAN's web-enabled database. Individual customers are given login rights so they can browse project proposals and vote for which ones should be funded. CAN's customers can also go to the site to monitor each initiative according to the amount of money contributed, the progress of the project and the number of people aided by the funds.

CAN also encourages customers to influence operations, regularly seeking their thoughts via surveys. Survey questions range from those typical of any financial institution — such as whether customers feel the bank's fees and charges are a fair reflection of a product or service being offered — to those only a civic bank would dream of asking, such as finding out how customers rate CAN's contribution to environmental conservation. As Sádaba notes, "We strive to be innovative and we use our customer evaluations as a way to continually evolve as a forward-thinking organization."

Making CAN stand out from other financial institutions even more, according to Sádaba, is that the annual bonuses of its staff are determined by clients' evaluations of how well they fulfilled 12 "duties" to clients – a list peppered with socially conscious words such as "evolutionary," "responsible" and "holistic."

A Level Playing Field

In Spanish. the word *cancha* means playing field. It also means a branch of a business. In a way, both translations have significant meaning for CAN. Its

canchas go beyond being banks by also serving as community centers for clients, who can drop in to one of them to have a cup of coffee, check emails or meet with business associates.

A visitor could mistake a typical CAN *cancha* for an art gallery, an office and a coffee shop all in one. All *canchas* have red carpets, a wink to customers that everyone should feel like a VIP. Meetings with financial advisers at round tables instead of desks add to the informal atmosphere to help customers feel at ease when discussing their finances. Likewise, the counters don't have the glass panels separating tellers from customers found at other banks.

Along with public meeting spaces – ranging from a small room to a full-sized conference room that customers can reserve online – it's not unusual for a cancha to hold concerts, art exhibits or seminars on topics such as personal finance. Last April, CAN hosted a tournament called MarioKart (a go-kartstyle racing video game) at its headquarters, which attracted more than 1,000 participants and 5,000 spectators to see 16-year-old Andrey Mengliev win the grand prize of 18,000 euro. Other activities have included a short-story competition and a photography session. "The canchas are not only about bringing in clients but also about projecting the image of CAN," comments Sádaba. "Instead of spending a lot of money on marketing, we go out of our way to position our canchas to reflect how we think as a civic bank."

While the cost of running a typical *cancha* is estimated to be 12% higher than a traditional bank branch, *canchas* enjoy 14% higher returns on average.

CAN is divided into three organizations – the *caja*, the corporate entity and the foundation. The *caja* is the client-facing banking arm. The corporate entity, which is based in a separate office, is responsible for investing the *caja*'s deposits in low-risk,

stable-growth vehicles. The returns generated by this arm are submitted to the foundation, which is responsible for distributing the money to social projects. The corporate entity may also return funds to a *caja* to increase its capital reserves or meet other needs.

The relationship between CAN and the Navarra government goes all the way back to the 15th century. In accordance with laws established then, the non-executive chairman of CAN is the president of Navarra, while the CEO is a professional manager. Meanwhile, seven of the 27 board members are Navarra parliament officials. Yet Sádaba says the role of the elected officials on the board has been largely symbolic and they have had little if any influence on CAN strategically since the merger. Moreover, new legislation has recently been proposed to eventually sever the ties.

From Navarra to Washington?

After explosive growth in Spain over the past eight years, CAN is now crafting new plans to grow beyond its borders. Its executive team thinks it has a first-mover advantage in civic banking, and the time has come to capitalize on this advantage on the other side of the Atlantic.

Based on internal market research, CAN has concluded that Washington, D.C.'s large concentration of NGOs makes it an ideal location to introduce its civic banking model. According to one CAN manager, "Wall Street was the problem, K Street will bring the solution," when asked about the financial crisis and referring to the city's thoroughfare that's home to a number of think tanks, lobbyists and advocacy groups.

But CAN's expansion strategy raises the question whether its size and organizational structure lends will help or harm its ability to set up shop in Washington. CAN is planning to establish at least one *cancha* in Washington, D.C., but has yet to

determine whether it should be an early-stage marketing tool or be postponed until CAN has secured new clients who will use the space to do their banking. Its lack of physical banking space and ATM locations may also work against it. Sádaba concedes that one of the greatest incentives for clients in Spain to join a CAN branch is the proximity of ATMs and branches.

What's more, while the city's NGOs may happily submit projects to CAN for funding, it may be a step too far to solicit their help in recruiting new clients, says Laura Horwitz, a senior analyst at one of Washington's most prominent charitable trusts. "It's a great idea in theory, but might be difficult to execute given the unfamiliarity with the CAN name and our own internal organizational politics," she says.

Casey Wilson, CEO of Wokai, a microfinance non-profit, says civic banking could work in the U.S. but questions whether CAN is the best-placed institution to launch it. According to Wilson, groups like GiveMeaning.org, an online fundraising site, have implemented a similar model already. Like CAN, it enables users to vote for projects for financing, without having to commit their own capital.

One of the biggest obstacles CAN may face is that it is not a familiar brand in the U.S. According to Wilson, "the task from Wokai's side may be too great. We can't ask all of our user base to switch to a foreign bank that doesn't have an established track record or dominant physical presence."

Furthermore, Wilson says if the model is successful, other banks may enter the market and usurp CAN's competitive advantage: "If CAN begins to win market share, there's no doubt in my mind that the large banks will adopt the model before CAN establishes itself as the market leader. It would therefore make sense for Wokai to wait and see how CAN does prior to convincing our user base to switch their bank accounts to CAN."

Yet proponents say CAN will have a significant advantage in the U.S. in that few other local institutions will have the resources to swiftly challenge it. The current financial crisis has left most banks scrambling to re-build reserves and re-establish client trust, leaving little room for them to explore how they can replicate an operating model like CAN's.

Whatever the outcome in the U.S., CAN is laying the foundation for a future in which banks' interests are aligned with those of their customers and society at large. The impact of their pioneering effort could be enormous, yet its success in markets unfamiliar with civic banking, such as the U.S., will be a struggle.

But so confident is CEO Goñi in the model's strength that he thinks other banks will have to adapt or die. "Banking has to change radically," he says. "If banks are not civic in the future, they will not be [around for long]."

This article was written by Philip de Cortés, Jacob Rosenbloom, Margot Stern and William Weinstein, members of the Lauder Class of 2011.



On the Road Again: Infrastructure "Made in Spain"

Experts in international management say robust domestic competition is a prerequisite for international corporate success. For proof, look no further than Spain's top infrastructure companies. Having honed their skills at home, they are now global leaders in projects ranging from toll roads to airports to renewable energy developments. But there's no resting on their laurels. The key to success, they say, is their ability to continuously build better business models and find new ways to manage their sector's notorious boom-bust cycles.

In the recent bidding for the contract to expand the Panama Canal, it was not whether but rather which Spanish company would be part of the winning consortium. Spanish companies were involved in two of the three shortlisted teams, with Spain's Sacyr Vallehermoso spearheading the winning group to construct the canal's new locks. It will likely be a similar scenario in the U.S. as bidding begins for the infrastructure projects at the heart of President Obama's recovery plan, which includes a proposal for an \$8 billion high-speed rail network. To wit, Spanish companies are expected to compete for \$71 billion of the contracts generated by El Plan Obama.

According to trade newsletter *Public Works Financing*, six of the 10 largest transportation concession companies worldwide are Spanish: Sacyr, Ferrovial, Fomento de Construcciones & Contratas (FCC), Abertis, Obrascon Huarte Lain (OHL) and Actividades de Construcción & Servicios (ACS), the latter being the largest of the six with approximately \$22 billion of revenue in 2008 and around 141,000 employees. *MIT Technology Review* says the six companies construct and/or manage about 40% of all major transportation concessions in the world. This world dominance, however, hasn't happened

overnight. These companies spent decades building up their domestic empires, which owe much of their recent growth to the extraordinary real estate boom in Spain and beyond.

But while the end of the boom has wreaked havoc in Spain's construction sector, the country's top infrastructure companies have leveraged their global prowess and diversified businesses to weather the storm. From the Panama Canal to New Delhi's metro to wind farms in the U.S.'s Midwest, they have positioned themselves well to outpace less diversified peers at home and abroad.

Building up Strength

Several political factors have contributed to the rise of the Spanish infrastructure players, most notably government support in the 1960s and Spain's entry into the European Union in the 1980s.

The Spanish Civil War of the 1930s left the country impoverished, isolated and economically feeble, a situation that continued under Francisco Franco's dictatorship for nearly two decades. In 1957, however, Franco's government began to liberalize the economy, adopt capitalism and usher Spain into

the world of international commerce. Recognizing the positive ramifications of infrastructure projects for the entire economy, including its fledgling but promising tourism industry, the government began backing loans with financial guarantees to ensure project funding.

As soon as Spain joined the EU in 1986, foreign investments flowed rapidly into the country. As Antonio Alfonso Avello, assistant to Baldomero Falcones, chairman and CEO of FCC, notes, "Spain's infrastructure industry in particular has benefitted from the direct support of the European Union through its cohesion funds [established to help finance infrastructure projects among member states] and the adoption of the euro, which ensured access to loans at very low interest rates."

According to Toni Brunet, corporate director of research and communication at Abertis, one of the largest transportation infrastructure management groups, the inflow of structural and cohesion funds following Spain's entry into the EU allowed the country to achieve its collective ambition during the early years of democracy of attracting new investment and talent to rebuild the economy. "To emulate the economic success and welfare of our fellow countries in the EU, the inflow [of funds] was mainly invested in Spanish transportation infrastructure, energy and water projects, supporting an emergent local construction sector that later became one of the sectors with the highest international focus and exposure," he says. Construction companies like FCC, Sacyr, ACS and Ferrovial, as well as pure infrastructure management companies like Abertis, have all benefitted.

The opening of the Spanish infrastructure market not only provided tremendous growth opportunities, but also increased the competitiveness of incumbent and emerging players. Experts in international management, such as Harvard Business School's Michael Porter, cite robust domestic competition as a prerequisite for international success. Avello says

this holds true in the case of Spanish infrastructure companies. "The successful global expansion of Spanish players is due largely to the competitiveness of the domestic construction and infrastructure market," as well as to the industry's drastic consolidation, he says. "The past decades [have] forced local players to review their strategy and improve operational performance perpetually. This pressure to survive in a dynamic, challenging domestic market environment simultaneously increased global competitiveness."

Though the pace and style of global expansion varies among each of the infrastructure companies, they share a number of traits in common. A case in point: They all keep a tight grip on fixed costs, giving them a high degree of flexibility as they manage through the sector's notorious volatility. At FCC, one of the country's oldest infrastructure companies, this has been accomplished via the subcontracting of nearly all projects, says Avello, "giving it a substantial edge over global competitors with less flexibility to adjust as markets change." Indeed, this approach not only made these Spanish companies less susceptible to downturns, but also helped them hone skills critical for managing complex projects involving a multitude of subcontractors.

According to Marcos Martín, head of international toll roads development projects at Abertis, "Construction assets do not travel; management skills, on the other hand, are highly transferable, facilitating the development of projects in new markets." Spanish companies are especially good at replicating best practice around the world because of a tough history that's left them all the stronger today, he contends. "Scarcity of resources during the 1960s and 1970s forced us to operate and invest more efficiently than our equivalents in the U.S., and today this means we are better trained to face the coming years after the credit crunch," he says.

Many of these companies also have stable ownership structures, in which one family owns a significant percentage or even the majority of the firm's equity. In the case of FCC, Esther Koplowitz, the founder's daughter, has a 54% stake. "This ownership structure permits FCC to favor long-term strategic objectives," says CEO Falcones.

And despite operating in diverse subsections of the sector, all Spanish infrastructure companies deal primarily with the same type of client: governments. Over the years, they have learned how to establish and nurture long-term partnerships with public entities, a critical "soft" asset when operating at home and abroad.

Finally, education has also contributed to the global rise of Spanish infrastructure companies. The Escuela Técnica Superior de Ingenieros de Caminos, Canales y Puertos de Madrid, founded in 1802, for example, has served as the training ground for the leaders of several of Spain's top infrastructure firms: the founder and former CEO of Ferrovial, Rafael del Pino y Moreno; his son and current CEO, Rafael del Pino y Calvo-Sotelo; the founder and former CEO of ACS, Florentino Pérez Rodríguez; the founder and former CEO of Acciona, José María Entrecanales de Azcárate; and the three founders of Sacyr, José Manuel Loureda, Luis del Rivero and Manuel Manrique.

Spreading Their Wings

Despite their impressive growth, these companies aren't resting on their laurels. The recent economic boom-and-bust period in Spain has served as a harsh reminder of the cyclical nature of the transportation and construction industries and the need for regular re-invention. In response, companies like Abertis, Acciona and FCC are diversifying business lines and geographic reach. By expanding into new areas of business, these companies hope to reduce exposure to economic downturns and create additional revenue streams.

Acciona is a leading example of the diversification strategies. During the 1990s, the company began expanding into industries facing less cyclicality than traditional construction and civil works. Since 2004, CEO José Manuel Entrecanales has led a transformation of the company, adopting the slogan, "Pioneers in Sustainability," to focus on three new business lines: infrastructure, water and, perhaps most significant, energy. According to directors from Acciona's strategy and innovation department, "Sustainability is the backbone of the group's innovative business model."

Under this strategy, Acciona has aggressively established itself as a major player in renewable energy at home and abroad. In 2006, the company acquired a 26% share of Endesa, Spain's electricity giant. It recently divested this stake in exchange for 2,080 megawatts (MW) of wind, hydro and mini-hydro assets valued at €2.85 billion, making Acciona the world's number two renewable energy provider.

Although Acciona is active in all major renewable energy technologies (wind farm development and wind turbine manufacturing, CSP and PV solar, hydroelectric, biomass, biodiesel and bioethanol), its primary focus is wind farm development. By the end of 2008, Acciona had 5% of the world's wind capacity, and by the end of 2009, was expected to have installed or acquired an accumulated capacity of 7,500 MW in over 260 wind farms in 14 countries, including 490 MW in the U.S. As a result of its diversification and repositioning, energy-related operations accounted for over 60% of all revenue in the first half of 2009, up from 8% for all of 2004.

Other Spanish infrastructure companies are dedicating more resources to environmental services in an effort to ensure more predictable cash flows in the long term. Because their contracts with local governments are long term and there is continuous demand from customers, environmental services are not cyclical. In addition, the recurring revenue streams generated by environmental services can have higher profit margins than construction projects. In 2008, for example, the

EBITDA margin for FCC's environmental services businesses was 17%, compared with 6% for its construction business.

Working in the company's favor, says FCC's Falcones, are external trends that are boosting demand for public services, such as population growth and continuing urbanization. FCC's goal is to be the leader in local services that promote sustainability and contribute to the well-being of citizens. "The current strategic plan is to achieve a revenue breakdown of 50% environmental services, 25% renewable energy and 25% infrastructure, including construction and cement, by 2015," he notes. By expanding the non-construction part of the business and changing the corporate image, the management team is confident that it is creating a more valuable enterprise.

Geographic diversification has also been important. For example, Abertis and Ferrovial have focused primarily on investing in developed markets such as France, the U.K. and the U.S., while other firms, such as Acciona, have moved ahead in developing countries such as Mexico and Poland.

Companies managing infrastructure assets tend to follow an expansion strategy characterized by investment in developed economies, which offer more stable and predictable political and legal environments. So unlike Spanish multinationals in other sectors, such as banking, telecommunications or even infrastructure construction, the country's infrastructure management firms have not chosen Latin America as their number one destination. In choosing foreign markets, these firms put a premium on the long-term security of their investments rather than on language and cultural similarities.

That explains Abertis' focus on Western Europe. After the company achieved a dominant position in Spain, managing 58% of all toll roads, Abertis – whose contracts can typically last 30 to 40 years, sometimes even exceeding 50 years – spent the past few years making sizeable acquisitions in neighboring

European countries. In 2005, for example, it acquired 53% of the French motorway Sanef and now manages 1,743 kilometers of toll roads, generating 27% of its revenue in France. Similarly, in 2006, competitor Ferrovial led one of the largest acquisitions ever undertaken by a Spanish infrastructure company with its £10.3 billion purchase of BAA, the owner-operator of London's largest airports – Heathrow, Gatwick and Stansted.

In contrast to their infrastructure management peers, companies that focus on construction seek fast-growing economies with a need for large investments in infrastructure. A typical construction project generates returns within a few years; political and economic stability is therefore less of a concern. The shorter-term focus has permitted Spanish construction companies to expand into Eastern and Central Europe and Latin America. About twothirds of FCC's international revenue comes from Eastern and Central Europe, while Acciona has one of its largest international engagements in Poland and recently intensified activity in Mexico, where the company has won €400 million of contracts to build and manage hospitals, convention centers, university campuses and a wind park.

Despite the acute effects of the global crisis on the Spanish economy, diversified Spanish infrastructure companies are set to continue to participate in growth opportunities offered by massive government spending to combat the crisis. The U.S., in particular, could soon be their primary growth market. Indeed, according to the American Society of Civil Engineers, the investment required in infrastructure in the U.S. over the next five years is \$2.2 trillion. To put this figure into context, the federal government's annual budget is \$2.6 trillion. Given their expertise in managing government relationships, expect to see Spanish players at the helm of infrastructure projects in the U.S. and worldwide.

This article was written by Mia Adelberg, Stephan Jacob, Greg Mitchell, Luca Ratto and Jeff Thelen, members of the Lauder Class of 2011.



Why the World Is Acquiring a Taste for Spain's Gastronomy

No part of the world in recent years has been better at delighting the stomachs of gourmands than Spain. After transforming its kitchens into laboratories of culinary innovative, today the greatest number of world-renowned restaurants per capita anywhere can be found in the Basque region and Catalonia. But while Spanish cuisine has ascended on to the world stage to much acclaim, can these regions in northern Spain sustain their competitive advantage? Spain's star chefs offer some food for thought.

The gastronomical world's most authoritative evaluation of top restaurants is the star system of the *Michelin Guide*, the publication that originated as a simple guide for motorists. The *Michelin Guide* awards coveted stars to only the best restaurants in the world. One star tells readers that the restaurant is very good in relation to its peers, two stars signify excellent cooking for which a detour is worthwhile, and three stars urge readers to make a special journey to visit the restaurant. While the guide rates restaurants according to a number of characteristics (quality of food, service, ambiance and so on) the rise of Spanish cuisine is centered on the one characteristic without which the others would be irrelevant – preparation of the food.

In recent years, no part of the world has been better at delighting stomachs through the innovative use of food than Spain, particularly its Basque region and Catalonia. In these two small areas, the greatest number of world-renowned restaurants per capita anywhere can be found.

But while Spanish cuisine has ascended to the world stage over the past decade, can the innovative

regions in northern Spain sustain their competitive advantage? For many years, French food dominated the gastronomic world, and many believed that because the Michelin Guide is a French publication, its contributors rated the world's restaurants through French eyes. In fact, French cuisine enthusiasts point out that only six restaurants in Spain hold the prestigious Michelin three-star rating, compared with 26 restaurants in France.

Nevertheless, it is undeniable that Spanish chefs, led by Ferran Adrià, have surpassed French cuisine when it comes to innovation and have pushed Spain to the forefront of European gastronomy. It was not until 1989 that Spain received its first three-star award, for Juan Mari Arzak's self-named restaurant Arzak. But Adrià's influence has been felt throughout Spain, including San Sebastián, a small city of less than 200,000 inhabitants that has three restaurants with three Michelin stars, the most per capita of any city in the world.

While Spain's rise in the world of gastronomy may seem swift to outsiders, Pedro Subijana says it feels different to the locals who brought about the change. In an interview with Arzak at Akellare, his three-star Michelin restaurant, which has been at the forefront of gastronomic changes in and around San Sebastián, Arzak noted that "I have lived the change at a rhythm that for the most part has been very gradual. So for me, it has been a slower development."

The phenomenon of specialization in a small region is known as clustering. The most famous example in the United States is found in Silicon Valley, south of the San Francisco Bay Area in California, which is famous for having the largest number of siliconchip innovators and manufacturers. It is known as the epicenter of the high-tech sector. Much like Silicon Valley, Spain's Basque region and Catalonia have formed a revered cluster. Top chefs in these regions – such as Subijana, Adrià and Arzak – have reinvented the reputation of traditional Spanish dishes and increased awareness of their delectable local cuisine while ensuring its future prominence.

More than Just 'Great Luck'

Adrià is certainly the most celebrated Spanish chef today. In fact, he has been the most celebrated chef in the world ever since his restaurant, El Bullí, was named the world's best restaurant four consecutive times by *Restaurant Magazine*. But Adrià is by no means the only acclaimed Spanish chef. Six Spanish restaurants – three in the Basque region and three in Catalonia – have three Michelin stars, and Spain claims four of *Restaurant Magazine*'s top 10 restaurants of 2009.

Clearly proud of the rise of Spanish cuisine, Adrià modestly downplays the culinary skills honed by the current generation of top chefs, giving more credit to the region's general culinary heritage. "This is the great luck of having a country so rich in a diversity of cultures, traditions, products," he says. "[T]his obviously marks each region with its own stamp, but at the same time, there is a philosophy of cooking and a manner of doing it that is common to the entire country."

Adrià is renowned for not only his innovation in the kitchen, but also his influence on other chefs. In 2008, The New York Times' "Diner's Journal" referred to Adrià as "probably the most influential and intriguing chef in the world. He essentially invented what has come to be called molecular gastronomy, even if he doesn't care for the term itself." Three of the other four chefs heading restaurants in Restaurant Magazine's top five this year – Heston Blumenthal of England's Fat Duck, Andoni Luis Aduriz of Spain's Mugaritz and Juan Roca of Spain's El Caller de San Roca – have worked under Adrià's guidance. Carme Ruscalleda, the only female three-star chef in Spain, said of Adrià in the Spanish newspaper *El País Semanal*: "He is a benefit to good cooking, that which shares a place with the most modern and the most traditional. When cooking contains cultural, nutritional and healthy ideas, Adrià adds the freedom of ideas."

Adrià's virtually inimitable El Bulli is open just six months each year. This gives him time to explore new cooking techniques and sample other chefs' creations. During the six months it is open, El Bulli is a gastronomic feast, with dozens of courses. With just one seating daily, only 8,000 diners have the pleasure of eating there every year out of more than one million requests for reservations.

What's more, chefs worldwide study and copy Adrià's innovations. When asked how he feels about this form of adulation, he says, "What I feel most proud of is having helped to raise hopes for cooking."

Catalonia's other three-star chefs are Ruscalleda of Restaurante Sant Pau and Santi Santamaria of Can Fabes. Ruscalleda's two restaurants (the second is in Tokyo) have a total of five Michelin stars, more than any other establishment run by a female chef. As an additional honor, she was selected to be the chef for Spanish Crown Prince Felipe's wedding in 2004.

Spain's other gastronomic center is the Basque region, in the province of Guipúzcoa and the city of San Sebastián. Subijana of Akelarre, Arzak of Arzak and Martín Berasategui of the eponymous restaurant Martín Berasategui are based there.

According to José Carlos Capel, food critic for newspaper El País, the new wave of inventiveness in northern Spanish cuisine dates to the late 1970s, when "a group of San Sebastián chefs, led by Juan Mari Arzak, created a new Basque cuisine inspired by French nouvelle cuisine." At the time, most of the changes involved cooking methods rather than new ingredients or types of preparation. Thus, dishes were still very traditional (for example, tortilla española), yet with a hint of innovative excitement. Subijana and Arzak have remained friends and collaborators in pushing Spanish cuisine ever forward, despite some resistance met initially as they tweaked traditional Spanish recipes. Eventually, they became two of the major proponents of the "new Basque cooking."

Spain's Basque region has innate advantages over other culinary capitals due to its abundance of seafood and produce. The Basque region of France is less than 20 miles away, but the two differ in style. Subijana says of the differences: "We respect, know and have a great friendship with the creators of new French cooking. But we [don't] have the same objectives. Given that our history of cooking was different, the evolution had to be different."

In 2005, *The New York Times* dining critic Frank Bruni said of San Sebastián: "I would go right now if my sole agenda were to eat." He said the city topped his list for being at once "old and new," "traditional and trailblazing," and "a place to which a food lover might retreat for its rustic, timeless culinary virtues and a place to which a food lover might flock in order to be conversant in the here and now."

A young Spanish chef who has seen the cooking evolution from a different perspective than Adrià and Subijana is Ramón Piñeiro of 1860, a restaurant at La Rioja's luxurious Marqués de Riscal Hotel. Piñeiro describes the evolution as "almost incomparable." He notes that the diversity of fresh food available due to Spain's favorable climate cannot be replicated everywhere. Like Adrià and Subijana, he stresses the collaboration among Spanish chefs, as opposed to chefs in France who "take their recipes to the grave." In Spain, "the magic is that the tradition and the vanguard are combined."

Culinary Clusters

Why such a phenomenon occurred in Spain — where the cuisine had long been synonymous with unchanging tradition and easily replicabled dishes — might be hard for a casual observer to understand. Unlike East Asian cuisines, such as Thai or Japanese, which have been "discovered" by Westerners over the past few decades, Spanish gastronomy, though respected in culinary circles, had a low profile. Even though Spain is one of the world's largest tourist destinations and its cuisine was known globally, it had never been considered cutting-edge enough to deserve much attention.

What's more, Spain's restaurant market has been highly fragmented, which increases competitive pressures. The country has one restaurant per 137 inhabitants, the highest ratio in the European Union and much higher than the 1-to-415 ratio in the U.S. This means Spaniards have more choices available than anywhere else, resulting in lower scale and increased rivalry among restaurateurs. Such intensity is as prevalent among higher-end restaurants as among the others. When compared to its peers with Michelin stars, the small northeast region of Spain is formidable. Counting six chefs with three Michelin stars – compared with five in the New York City area and 10 in or around Paris – its high-class dining market is also highly competitive.

Examples, such as the Silicon Valley technology cluster, validate the point made by Harvard's Michael Porter that rivalry leads to innovation and long-term success. The Basque region and Catalonia, where an unparalleled culture of innovation has emerged among top chefs, are no different.

The Alchemist in the Kitchen

Process innovation alone, however, would not propel Spain to the height of world-class cuisine — a new concept was needed. Adrià is recognized as the "alchemist of the kitchen" because of his advances in molecular gastronomy. This science studies the micro-properties of culinary ingredients and has led to the development of some of his unique creations. Working in collaboration with chemists, universities and other restaurateurs, Adrià has translated external influences and cutting-edge research into avant-garde concepts and ultimately delectable culinary recipes, such as smoke-flavored foam and "tapioca" of Iberian ham.

As in any highly competitive market, other chefs have followed Arzak and Adrià in their quest for gastronomic innovation. Famous chefs, such as Aduriz – who is known for his "physiochemistry" of vegetables and creative dishes, such as garbanzo broth tinted a shocking green with chlorophyll extracted from herbs, and Ruscalleda, who is often described as "ingredient-obsessed" – have followed suit in the quest for innovation. A number of other chefs, albeit not as innovative, are determined to translate such radical concepts into increasingly accessible food across the country.

Another crucial factor for the culinary movement in the region lies in its culture, which is more collaborative than competitive. Despite the keen rivalry, prestigious restaurateurs have managed to create an environment where the sharing of ideas and knowledge transfer are valued. Capel describes the new generation of chefs as "all friends [who] travel to each other's restaurants. Spain is like a cooking school with open doors – there are no secrets. When somebody invents something new, everyone knows about it immediately." According to Adrià, the fact that high-end chefs "are personal friends, not only professional colleagues" is important. This facilitates information sharing and the adoption of best practices, while allowing individuals to exercise their own creativity in the kitchen.

More interestingly, the culture fosters excellence without competitiveness. Many of the top chefs, when asked to compare new Spanish cuisines with gastronomy in other countries, shy away from the question of superiority. Adrià, for example, says that "it is not a question of surpassing anything. The important thing is to be there, among the elite, without wanting to be the best but with the spirit of improving and wanting to become better every day."

In many European countries, meals are an important form of social interaction. Spaniards seem to take this ritual more seriously than their neighbors do. Offices and shops usually break from 2 p.m. to 4:30 p.m. every afternoon in Spain, while the average lunch break is 28 minutes in the United Kingdom and no more than 60 minutes in France. The emphasis on meals is so engrained in everyday life that business hours in Spain usually include a two- to three-hour break in the middle of the day for a long lunch and the occasional siesta.

Another example of the importance of food in Spain is the popularity of cooking clubs, most notably in San Sebastián. These private clubs involve groups – usually men – gathering together and preparing food for one another. The clubs not only help disseminate the collective cooking knowledge of their members, but also serve as laboratories for small-scale innovation. Club members, often novice chefs are doing their part to increase Spaniards' culinary sophistication.

Academic support is another of northern Spain's differentiating factors. Even though culinary schools are common in many parts of the world, the combination of scientific knowledge and gastronomy has been successful in only a few places, Spain being one of them. A number of universities and research institutes have partnered with renowned restaurateurs to foster innovation in the kitchen.

The University of Zaragoza is a case in point. Its new food science department has developed research similar to that of Frenchman Hervé This, an influential molecular gastronomer, to advance the young discipline of studying the physical and chemical processes that occur in cooking. As a result of the collaboration, Senen Gonzales has invented a technique for simultaneously grilling and frying food, such as potatoes.

For his part, Subijana excitedly mentions that the Basque Culinary Center (with some support from Spain's Ministry of Science and Innovation and the Basque government) will open in 2011. The center, long a pet project of Subijana's, will award a Bachelor of Arts in culinary arts and four postgraduate qualifications. Also noteworthy is the involvement of renowned chefs in international projects. Adrià has participated in the EU-wide INICON project, which promotes collaboration among scientists, chefs and restaurants. El Bulli also has a strategic partnership with Harvard's School of Engineering and Applied Sciences to research food textures and structures.

Finally, cooking now uses technology more than ever. Since Blumenthal and Adrià began using liquid nitrogen to freeze mousses and siphons to turn squid ink into foam about five years ago, the walls between the laboratory and the kitchen are crumbling.

Playing their part, Sergio and Javier Torres, twin Catalonian chefs who own and operate Eñe, the most renowned Spanish restaurant in Brazil's São

Paulo, joined efforts with a group of scientists at Valencia Polytechnic University to develop the gastrovac. This device uses vacuums and extremely low temperatures to cook food, infusing it with the liquid in which it is pouched. Unlike techniques that transform one type of food into another, such as olive oil into false olives, this patented device uses technology to make food taste more like itself, preserving the colors, properties and taste.

Spanish Cuisine Goes Global

In a fairly new phenomenon, several major cities now have their own examples of the refined taste and superb innovation of Spanish gastronomy. Tokyo, New York and São Paulo have more in common than their astonishing sizes and hurried lifestyles, with each home to exquisite Spanish restaurants. Tokyo has Ruscalleda's two-star Michelin restaurant, Sant Pau. Three of New York's numerous Spanish restaurants have received at least two stars from *The New York Times*: Bolo (three stars) and Boquería and Solera (two stars each). In São Paulo, Eñe was chosen by *Prazeres da Mesa*, a Brazilian magazine, as that country's best restaurant in 2008.

Is it possible to export the know-how of Spanish chefs, while maintaining the innovation and flavor combinations that mark Spanish gastronomy? We set to find out by interviewing Eñe's owners. Eñe is a great example of the internationalization of Spanish gastronomy. The restaurant opened two years ago and has already reached an unparalleled level of recognition, winning major prizes during its short lifespan – for São Paulo's best pork dish in 2008 and as one of the top three restaurants in all categories as judged by *Prazeres da Mesa* in 2009. In addition, Sergio and Javier Torres have received a number of prizes from international gastronomy publications for their book about merging Catalonian and Brazilian cuisines.

The idea of opening a restaurant in São Paulo came about after the Catalonian chefs and a local investor, Acadio Martínez, spotted an opportunity in the market. Says Martínez, "The Spanish gastronomy is well recognized internationally but it is really difficult to find great quality Spanish restaurants out of Spain." The choice of city also seemed logical, as he notes that São Paulo is dynamic and open to innovation. The city hosts restaurants representing more than 51 nationalities and is often called the world capital of gastronomy.

Bearing all this in mind, it's clear that the key factors for success have been know-how, innovation, availability of high-quality ingredients, implementation of the latest gastronomic technology in preparing different recipes and market demand. The Torres brothers' know-how is critical, lending credibility to the venture.

Both chefs have very impressive résumes, having begun their studies and work experience in gastronomy at the age of 14. Since then, they have learned from high-profile chefs and worked in several three-star Michelin restaurants in Spain and notable restaurants in France. In 1992, Sergio was selected as the best Spanish chef, and Javier was the executive chef at El Raco de Can Fabes, a three-star Michelin restaurant, for eight years. They currently are leading a new gastronomic venture in Barcelona, the restaurant Dos Cielos.

Having Spanish chefs should almost guarantee innovation, which is the essence of new Spanish cuisine. But the twins take it further than importing recipes from their home country. By infusing traditional ingredients with local ones, they create unique recipes as they make connections with the regional taste and culture. Furthermore, many agricultural products in Spain are also available in Brazil, which helps the chefs in their pursuit of culinary perfection.

Thinking about Spanish cuisine is almost the same as thinking of new ways to cook food. The Torres brothers do it particularly well by using specially created machinery. Their *gastrovac* is just one of several innovations they have brought to the kitchen. They focus on not only the ingredients and their combination, but also cooking methods: "For each plate we create, we also engineer a specific cooking method," says Javier Torres. By not limiting themselves to traditional equipment or techniques, they have created a recipe for slowly cooked veal that requires 18 hours of preparation. "We want to foster equilibrium between traditional and modern cuisines, respecting the value of each ingredient," says Javier.

The combination of these elements has led to another successful recipe from Eñe: good business results. Martínez recognizes that Spanish cuisine's recent rise to prominence has helped foster his success, but he also observes that "the lack of tradition and knowledge of the Spanish cuisine in Brazil required a lot of media effort." All the other factors would not have yielded results if the idea had not been embraced by the media and the proposition accepted by the customers. The recent opening of a second Eñe locale in Rio de Janeiro and the extensive coverage and rave reviews are proof that this model can be replicated outside Spain.

One can reasonably assert that haute Spanish cuisine is as good as any in the world. Even so, popular Spanish cuisine may not have reached its peak. Adrià stated it best in an interview a few years ago in *El País Semanal* when he said, "At the peak [of the pyramid], we are above France. In the 100 restaurants that come next, we are at the same level. But when we go down to the following thousand, things change: The French restaurants are above us. We are lacking generations of gastronomic culture."

Things are gradually changing as Spain's gastronomic culture spreads, and its cuisine receives

global acclaim. Still, many wonder if this innovative cluster that emanates from northern Spain can maintain its competitive advantage. French cuisine enthusiasts point out that far more French restaurants have the three-star designation than Spanish restaurants do. And despite Spain's dramatic rise, certain Spanish chefs face challenges as they strive to hold on to this new recognition. Some say the emergence is a fad; others argue that its longevity will rely on a genius at the helm (such as Adrià) or on constant innovation. As Subijana notes, "It is something that can last, if we don't fall into the trap of chauvinism. The others are not idiots. We have to keep making good products and innovating."

Philadelphia-based food critic Craig Laban agrees about the need for continuous innovation by Spanish chefs. This may prove difficult. Innovation such as sea urchin custard, nitrogen-frozen cheese shells and quail-leg lollipops can certainly capture people's interest; but as Subijana says, "I can be content, but I can never be satisfied."

The globalization of Spanish cuisine offers challenges and opportunities. According to Spanish chef Acadio Martínez, who operates one of the most successful Spanish restaurants outside Spain, "One of the key challenges that Spanish cuisine faces is international expansion. For Spanish cuisine to secure itself globally, a high quantity of high-quality Spanish restaurants needs to be opened during the coming years."

The future of Spanish cuisine is, indeed, up for debate, but so is that of gastronomy as a whole. As Adrià notes, "The course of global gastronomy is becoming more generalized, transforming from cuisine with a single country of origin to a more global gastronomy." Just as the plates of Spanish chefs offer an endless range of tastes and sensations and are resplendent with surprises, so is the future of gastronomy.

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A Brave New World for Venture Capitalists in China

Despite its short history, venture capital in China has already made big contributions to the country's development of private enterprise and the promotion of innovation. But the learning curve has been steep for both local and foreign players. Limited exit options, tricky regulations and a lack of local market knowledge have left many venture capitalists struggling. Now, many industry watchers say if China's VC market undergoes much-needed structural changes, it will soon become one of the most exciting in the world.

China's venture capital (VC) market has undergone tremendous growth in recent years and has emerged as one of the most important in the world. Despite being a nascent industry in China, it has made enormous contributions to innovation and entrepreneurship in the country, while successfully providing Chinese entrepreneurs with access to global capital markets.

Although entrepreneurship and private ownership are an integral part of Chinese history, developments from the 1950s to the early 1970s shifted attention toward state ownership and collectivism. It was not until the late 1970s, when Deng Xiaoping began to transform China's planned economy into a market-driven economy, that private ownership and entrepreneurship were reinvigorated. Some academics believe that the birth of the Chinese VC industry can be traced back to the mid-1980s, when the Chinese government created numerous VC agencies to support the technology sector. However, during this period access to capital was limited, and most entrepreneurs relied heavily on family and friends for funds. As a managing director of a successful

Beijing-based venture capital firm concludes, the concept of "equity ownership and capital investment needed time to take off."

It was not until the late 1990s that the Chinese VC industry began to take shape. The initial wave of investments into China took place in sectors that closely mimicked successful initial public offerings (IPOs) in the U.S. Following Yahoo and the like, early VC activities in China focused on web directory ventures including Sohu.com and Netease.com, both of which listed on NASDAQ. The attention of Chinese VC firms then turned to Internet service providers and eventually to business-to-business companies, such as Alibaba. During these early days, prominent active VC firms in China included IDGVC, Softbank and Walden International.

Between 2001 and 2004, the VC industry was still small and activity was limited. There were no public listing exits and only three major foreign-led acquisition exits: 3721 Internet Assistant (a browser helper object technology acquired by Yahoo), Joyo (a web retailer acquired by Amazon) and EachNet

(an e-commerce company acquired by eBay). However, in 2004, VC exploded following the successful IPO of Shanda (盛大互动娱乐有限公), which yielded a 1,300% return for the Softbank Asia Infrastructure Fund. Other subsequent successful IPOs included those of Kongzhong (空中) in July 2004, Focus Media (分众传媒) in July 2005, Baidu (百度) in August 2005, and Tencent QQ (腾讯QQ) and Home Inns (如家酒店集团)in October 2006.

As a result of this surge, the Chinese VC market experienced a huge influx of capital from the U.S. and Europe. According to Zero2IPO Research, total capital raised increased more than 30% between 2004 and 2005. In 2008, \$23.4 billion of capital was raised, representing an increase of more than 100%.

The number of VC firms operating in China also grew rapidly. But as one industry expert notes, "There was a lot of money chasing a limited number of good deals." It was an unsustainable market. During the height of the investment craze, certain VC funds altered their investment strategies to focus on growth-stage or pre-IPO investments because they were perceived as a "free ride." These companies had proven business models and significant cash flows and were much closer to going public than startups. They also required significantly less due diligence, direct management, and understanding of the underlying technology or business model. Increasingly, larger funds also contributed to this trend, with later-stage investments requiring more upfront capital. VC firms had less incentive to earn high returns because they could make money from management fees.

Another challenge during this time was the nature of entrepreneurs in China. Many worked on multiple deals concurrently, resulting in less focus on sustainable business models. One example that highlights the issues was ITAT. Among the many banks involved in the deal were Goldman Sachs, Merrill Lynch, Morgan Stanley and Deutsche Bank.

But allegations of accounting fraud and questions concerning ITAT's business model forced the cancellation of its \$1 billion IPO. Most entrepreneurs and investors were simply seeking a quick return on investment and did not consider long-term growth.

This situation mirrored the previous dotcom boom in the U.S. The frenzied pace of investment and unrealistic valuations created conditions for a Chinese VC "bubble." Around the end of 2007 and beginning of 2008, China's VC industry experienced a rapid slowdown in the quantity of new investments. According to industry data, the increase in the total amount invested slowed from an average of 67% in 2007 to 29% in 2008. One venture capitalist comments, "The euphoria of the previous years had clearly disappeared."

What You Know, Who You Know

Initially, large foreign firms dominated Chinese VC, but recently domestic firms have become significant players. Although foreign and domestic VC firms operate under different constraints and cultures, both acknowledge that having access to the right people and local resources is critical.

The major advantage foreign firms have over their local counterparts is easier access to capital thanks to better connections with foreign pension funds, insurance companies and other investors. This is crucial because of the limited number of exit options for renminbi-denominated VC funds in China. Another advantage that foreign firms have is greater investment and business-building experience, which they have gained in home markets. Finally, foreign firms bring established investment processes and greater professionalism.

At the same time, domestic VC firms have major advantages over foreign companies. Most important is a deeper knowledge of local markets, which is vital for sourcing deals and adding value to portfolio companies. Their local relationships and

contacts with governments, universities and stateowned enterprises are also critical in a market in which most deals are sourced through personal and professional networks. Meanwhile, in terms of the regulatory environment, a foreign firm with foreign-denominated funds investing in a domestic company must form a complicated offshore limited partnership, which adds an additional level of complexity.

In the long run, domestic firms will increase their advantage over foreign firms as the domestic market becomes a more important source of capital. A number of executives believe that as the Chinese stock market develops healthier exit options for RMB investments, most capital will be sourced domestically. Local RMB-denominated funds are already showing signs of gaining popularity.

Foreign firms realize that they must become more localized to survive in China. Although firms previously imported experienced staff from abroad, they are increasingly able to find highly qualified candidates locally. Many foreign VC firms now manage only the fundraising through their home offices and grant full autonomy to their Chinese teams to execute and manage deals.

Of Culture and Collaboration

The first step in the VC investment process is identifying opportunities. In China, deals are typically sourced in three ways. The most common and effective method is through personal and professional networks. As found in many other sectors in China, success in venture capital relies heavily on relationships and extensive networks. The second method is through financial advisory firms, which provide banking services to new companies. One drawback to this method is that these firms have incentives to generate inflated valuations. The third method looks within a sector to identify potential market leaders. While this can be time-consuming, it is feasible because a

number of sectors are still underdeveloped in China.

In the U.S. deals are also sourced mainly through personal and professional networks. However, the second and third methods are rarely used. The managing director of a prominent Shanghai-based VC firm says this is because, "in the U.S., the VC industry is already highly efficient."

Once an opportunity has been identified, a VC team must conduct due diligence. This is an essential step in the process globally, but in a market with so much uncertainty, it takes on added importance. Due diligence in China typically requires more effort than in Western markets because of crude financial information and opaque disclosure. Some VC firms even comment that readily available information signals an "over-shopped" deal and might be cause for concern. Due diligence can last from three months to more than a year, and the process varies widely, sometimes as a result of legal issues.

Because of these difficulties, due diligence is heavily dependent on trust and local networks. It is important for VC firms to spend time with entrepreneurs to get to know them, and it is equally important to know whom to call for references. Against this backdrop, due diligence in China typically involves more senior decision makers than in the West.

The last step is deciding whether to commit capital and invest. Among the numerous criteria for selecting a deal, the most important factor cited is people. There has to be mutual trust between the VC firm and the entrepreneur. There is always the risk of an entrepreneur taking the investment money but not delivering on pre-agreed commitments. Just as importantly, many Chinese entrepreneurs are unfamiliar with the concept of venture capital, and its legal frameworks are still unstable, so trust is necessary to form a workable

relationship. A number of established VC firms in China have incorporated the concept of "cultural fit" and "willingness to collaborate" in their identification and due diligence processes.

Creating Accountability

Once deals are secured, venture investors actively will want to participate in the company's development to generate a healthy return from the exit. The amount and level of involvement vary depending on the venture capitalists' preferences and experience, as well as the invested firm's stage of development.

Implementing a corporate governance structure is widely acknowledged to be the most significant value-adding service. The primary objective is to instill a high level of transparency and accountability in management and operations, which is particularly important in China. This structure not only ensures successful management of the investment during the holding period, but also maximizes valuation by gaining market confidence. Typical corporate governance activities include setting up an independent board of directors, improving accounting and reporting standards, and working with independent auditors.

Venture capitalists also add value by providing access to resources and relationships. Business in China is highly dependent on the ability to access the right people, information and government offices. Many venture capitalists in China are extremely experienced and have extended networks both in China and overseas. Thus, early-stage companies often benefit tremendously from being part of venture capitalists' networks and having access to those resources.

Results in attempts by VC firms to implement "value-added" initiatives in Chinese companies have been mixed. Entrepreneurs are fearful of venture capitalists taking control of a business and do not welcome outside interference. It is

particularly important in China to invest additional time to develop trust and build a long-term partnership to minimize difficulties down the road. The managing director of one of the first foreign firms to enter China identifies this as being among the most difficult and important tasks. A number of executives like him acknowledge that the ability to "read" the local market and people, acquired through years of experience, gives a VC firm a strong competitive advantage. The ability to generate real returns on these investments requires patience, trust, persistence and mutual understanding.

Dispelling Common Myths

The challenges facing China's VC industry has become a popular topic in global media. Yet some industry experts say the challenges – such as the movement of capital, the talent pool and regulatory environment – are overblown and contend that for every risk, there's an opportunity. For example:

"Everyone is going inland to get the deals now":

China's VC industry has been concentrated in three cities: Beijing, Shanghai and Shenzhen. Beijing is home to an abundance of technology and R&D expertise as well as being China's political power center. Shanghai is China's financial epicenter and the location of many multinational headquarters. Shenzhen is its manufacturing hub, boasting plentiful labor, world-class infrastructure and proximity to Hong Kong. These cities have been the engines of China's growth and the focus of VC firms.

Because of escalating wages and competition, many companies and jobs are moving inland with support from government initiatives. At the same time, Beijing, Shanghai and Shenzhen are attracting an increasing number of foreign VC firms and regional players, leading venture capitalists to declare the market to be oversaturated. As a result, some private equity firms are raising funds focused exclusively on China's interior.

Despite the apparent interest, a number of venture capitalists maintain that this is not a dominant trend. Even if a fund hopes to shift geographic focus, the transition would take time. As mentioned, personal connections are very important and a firm cannot establish networks instantly. In addition, some venture capitalists argue that inland provinces only provide opportunities in certain sectors, such as manufacturing and natural resources. Investments in technology and consumer products are still predominantly made in Beijing, Shanghai and Shenzhen. Finally, these three coastal cities still offer ample investment opportunities. According to one venture capitalist, "Beijing, Shanghai and Shenzhen continue to be the most mature and active markets."

"There is limited talent": As in most of corporate China, talent is one of the major constraints cited by managers. The global VC industry has a high standard for new entrants, with most jobs requiring significant experience. Considering China's relatively recent economic development, this would seem like a particularly difficult issue for VC firms.

However, most VC firms do not view the lack of experience as a serious problem and hire professionals with credentials from sectors outside of VC. Some firms look for applicants who are passionate about technology and easy to work with. Some also look for candidates with good networks, but other firms are wary of candidates who claim to be very well connected. As one venture capitalist comments, such candidates "usually end up bringing nothing." VC companies can find a number of candidates trained at investment banks, consulting firms and other multinationals. The necessary skill, after all, can be learned on the job.

"The Chinese regulatory environment is debilitating": The complex regulatory environment in China is difficult for VC firms and their investments to navigate. They must obtain

operating licenses that limit their potential investments and exit options. Another challenge is the lack of structured exit routes in China, which often increases the length of time required to hold an investment. While most firms would prefer an exit after 18 months, the reality is often closer to five to seven years.

However, many leading firms have incorporated these unique factors into their processes and adapted to the circumstances to generate extremely attractive returns in China. Many industry experts cite having early access to the right information as one of their most important core capabilities. For example, one VC firm did not pursue an investment in a seemingly attractive YouTube-type site because of the government's stance on public media – the site has been blocked for extended periods due to disputes with government officials over its content and has yet to turn a profit.

The Chinese government and regulatory system can be challenging for venture capitalists in China, but successful investors navigate around the obstacles and profit by correctly anticipating potential issues.

What Lies Ahead

Despite recent challenges in the VC industry, China continues to be one of the most vibrant investment communities in the world. The managing director of a large Beijing-based VC firm states, "There is still tremendous untapped potential in China, especially with the growth in entrepreneurism and innovation." Many say that Chinese VC will undergo significant structural and market changes in the near future. The managing director of a domestic VC fund that is focused on early-stage companies predicts a significant consolidation among top-tier firms while smaller players exit the market. Overall, industry consolidation will be a positive change because it will help create sustainable business models and curb overzealous investments.

The second major prediction is the localization of VC firms in terms of people, funding and processes. As alternative investment becomes more accepted in China and the exit routes become more established, increasingly the sources of funds will be locally based. As a result, hiring employees with a deep understanding of local consumers' preferences and cultural norms as well as established market relationships will become vital for success.

In terms of industries of interest, many venture capitalists agree that technology and consumer products will be among the key sectors attracting money. The technology category includes firms focused on Internet applications, gaming, clean tech and energy. The consumer goods sector covers education, advertising, health care, beauty, social networking, food and agriculture. The breadth of the sectors covered makes China stand out from some of the more focused, established markets, including the U.S. and Europe. One venture investor

cites the market size and lack of institutionalized funding options as the primary drivers of this phenomenon.

Despite its short history, VC in China has already made significant contributions to the development of private enterprises and the promotion of innovation. As China develops its position as a global business leader by moving into an innovation-driven economy, venture capitalists will play an important role in the incubation of new entrepreneurs. Regardless of origin, venture investors who understand local markets and consumers, develop deep trust-based relationships, and successfully apply lessons from the past will claim their stake in what is currently the most exciting and rewarding VC market in the world.

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Coming of Age: A Look at China's New Generation of Investors

Ever since the Shanghai and Shenzhen stock exchanges opened in 1990, China's nascent mutual fund industry has been evolving in a much different way than in the U.S. or other developed economies. Indeed, understanding China's largely inexperienced retail investors – many of whom are betting on quick wins with short-term investments regardless of the high risks involved – sheds light on the quirks of China's securities markets in general, and the mutual fund industry in particular.

An old man sits comfortably in one of the many drab, white-walled securities company offices in Pudong, Shanghai. He takes a sip of tea from his large thermos and scours a dog-eared stock market journal for information. He then moves to his trading terminal and enters trades. Three other old men eagerly watch their respective terminals while occasionally mumbling about their recent trades. Imagine this scene multiplied hundreds, if not thousands, of times and you get a better idea of what makes China's financial markets tick than by reading the business section of *The New York Times* every day.

These retail traders are a big reason why China's nascent mutual fund industry has been evolving in a much different way ever since the Shanghai and Shenzhen stock exchanges opened in 1990 than in, say, the U.S. or any other developed economy. Indeed, understanding China's largely inexperienced retail investors – many of whom are betting on quick wins with short-term investments regardless of the high risks involved – sheds light on the quirks of China's securities markets in general, and the mutual fund industry in particular.

Share and Share Alike

The growth engine of China's financial markets has been equities. In April 2007, the Shanghai stock exchange's market capitalization surpassed that of Hong Kong and is now approaching that of Japan. Public share ownership in China is complex, and the three classes of traded shares – A, B and H – reflect the government's cautious approach to securities liberalization over the last 20 years. A shares are local share listings denominated in renminbi (RMB) for domestic investors, while B shares are Hong Kong or U.S. dollar-denominated shares generally owned by foreigners. H shares are for China-incorporated companies traded in Hong Kong. Unlike the hands-off approach of Hong Kong's government, the China Securities Regulatory Commission (CSRC), the People's Bank of China and the State Administration of Foreign Exchange closely monitor and regulate the Shanghai and Shenzhen markets.

To put the growth path that China's markets face in perspective, assets under management (AUM) of the U.S.'s mutual fund industry is more than 65% of GDP, while in China, it is less than 10% of GDP.

In the first half of 2009, the AUM in China's mutual fund industry totaled 2.4 trillion RMB (US\$351 billion). Five mutual fund firms manage nearly one-third of that amount, led by local players China AMC and Bosera Funds. The third-largest company by AUM is Harvest Fund Management Co., which is 30% owned by Deutsche Asset Management and has approximately 122 billion RMB under management, or about 5% of the market. (Foreign asset management companies are allowed to operate in China under a maximum 49% ownership joint-venture structure.)

Not all foreign investors – retail or institutional – can own A shares although mutual fund investment has been liberalized slowly over recent years. Since 2002, a limited amount of foreign investment in A shares has been allowed through the Qualified Foreign Institutional Investor (QFII) program. The current quota is US\$30 billion. Similarly, Chinese domestic investors have been allowed to invest in foreign securities markets since 2006 through the Qualified Domestic Institutional Investor (QDII) program. This allows a limited number of institutions in China to invest in foreign assets – bonds and money market funds as of 2006, Hong Kong equities as of 2007 and U.S. equities as of 2008.

These developments, however, need to be viewed in a broader social and economic context, particularly given the dramatic changes that have occurred as the era of the "iron rice bowl" – the term referring to the job and benefits guarantees that Chinese have enjoyed – comes to an end. During the heyday of the country's centrally planned economy in the previous century, much of the population relied on the state to provide lifelong jobs and material benefits. Although the compensation was far from luxurious, it was reliable enough for individuals not to have to worry about personal financial planning. Economic modernization has ended the paternalistic, all-encompassing state system and has paved the

way for the rise of a new capitalist mindset emphasizing private savings and asset ownership.

For the first time in their lives, many Chinese are confronting the complex decisions that accompany wealth management and retirement planning. As they struggle to balance consumption and savings, choosing the correct investment vehicles has become even more challenging. And while the number of people reliant on the iron rice bowl is decreasing, the remnants of its mentality are influencing the mutual fund market, not least because the average Chinese investor doesn't yet see the need to seek long-term and stable returns.

Churn, Churn, Churn

The accumulation of new wealth in the absence of a widespread financial planning culture is generating several striking phenomena in the mutual fund market, says Gao, the district trading manager of Nanjing Securities in Shanghai. "There is a common tendency of investors to view the relative valuation of a fund by the absolute number of its share price," he notes. So for example, if Fund A trades at 2 RMB, it would be considered twice as expensive and overvalued compared with Fund B, which trades 1 RMB. While the fundamental reason for this may be the superior quality of assets in Fund A (or may even be due to the difference in the underlying shares outstanding), many mutual fund investors look only at the 2 RMB price to conclude that A is overvalued so they should sell A to buy B.

This attitude was prevalent in the recent bull market. When the price of mutual funds, which always begin trading at 1 RMB, doubled or tripled in price within a year, investors would lock in their gains by selling and then re-investing in a new fund starting at 1 RMB. As Gao notes, "This fundamental misunderstanding of mutual funds by investors in China is in part responsible for investors selling well-managed mutual funds that are increasing in value to buy more shares of a newer and lower-priced fund."

The peculiar approach to investing combined with the remarkable increase in asset values until 2008 created tremendous volatility and "churn" in mutual fund portfolios. As an article by Asia Money states, "Churning – or chao – is a major feature of the mutual fund industry [in China].... [A] jackrabbit investor approach means that funds have to keep 10% or more of their assets in cash to meet redemptions and so underperform [in] a bull market." This is double the amount of cash most U.S. equity mutual funds hold in reserve. It's the culprit behind underperformance, which was clear in data from the first quarter of 2007 amid the last extended bull market. According to Morningstar, during this period, 174 of 183 Chinese equity mutual funds - or 95% of all China-based funds underperformed on the Shanghai-Shenzhen benchmark.

A second consequence of investors taking the absolute price as a signal of a fund's relative value is that Chinese funds keep their share prices artificially low. Funds face a strong incentive to distribute large dividends in order to lower unit share prices and encourage investors to maintain their holdings. This, of course, means that a fund manager needs to sell stocks at a less-than-optimal time and then re-invest when prices may already be too high. Furthermore, this has negative tax implications and increased transaction costs for the fund and its investors, and can hinder a fund manager's ability to pursue an optimal, long-term investing strategy.

Another noteworthy aspect of the Chinese market is the overwhelming popularity of new issues. Aside from the appeal of the low initial price, there is a common misperception among investors, particularly in the retail segment, that new funds are better than older ones. Many view mutual funds as being no different from common stock, a unique security that can be traded freely for short-term profit. Funds are not widely perceived as a long-term, risk-reducing investment vehicle. For this

reason, the issuance of a new mutual fund often draws the same excitement as an initial public offering.

Although this is not the only factor entering investors' decision-making, it plays a critical role in attracting retail investors to the fund. One fund set a record in 2009 by raising 24 billion RMB in the three days following its release. After all, as a Chinese proverb goes, "Prefer the new, dislike the old."

The impact of all this would not be as significant as it is if smaller retail investors controlled less of the market. However, institutional investment accounts for 55% of all investment in China, compared with roughly 76% in the U.S. At the same time, while institutional investors have the knowledge to act more rationally, they often cater to less-experienced retail investors. That's opened the former to be criticized for short-termism and excessive speculation, while not paying sufficient attention to market fundamentals. A case in point is the use of equity in fixed-income funds. These funds facilitate investments of up to 20% of assets in equities, which some funds have used fully to increase their yields. In the U.S., high-yield funds rarely resort to purchasing equities, and most fixed-income funds would not think of having equity exposure for fear of losing their core investor base.

Similarly, fund managers' incentives are structured with a big emphasis on short-term performance. That explains why monthly rankings are one of the key metrics used by investors, and a short drop of just a few months can result in significant investor redemptions. As Zhang Xingxiang, legal policy counsel for a multinational corporation in China, puts it, "If a fund manager sees the fund under his management drop for two or three months in a row, it can be a disaster. Investors typically look at these rankings, which makes the pressure for short-term success too great to develop long-term strategies."

In more extreme cases, the success or failure of a fund's launch might depend on its dollar amount and size. To attract the attention of an unsophisticated retail investor, who views larger funds as more prestigious and more profitable than others, a fund manager might turn to family and friends when issuing a new fund to boost its initial size. This practice is detrimental to returns because, shortly afterwards, family and friends withdraw their capital, leading to large redemptions and a lag in the fund's performance.

Controlling the Ups and Downs

Meanwhile, the government has been very hands-on in developing mutual funds, using its regulatory power over funds to influence broader stock performance. One of the government's key goals over the past few years has been controlling market volatility. The QFII program was set up in 2002, in part, to help increase the number of longer-term, stable institutional investors. The CSRC has been known to limit new entrants to the program if it deems that there is too much liquidity in the market.

Then, amid the growing stock market bubble in 2006 and 2007, the government opened the QDII program to allow domestic investors to invest overseas. At first, that applied only to fixed-income products (including government securities) but was expanded to certain international equity markets. The government also actively influences the market – for example, when it did not let allow any new equity funds in 2007.

In some circles, the government's willingness to intervene in capital markets is seen as a major cause of volatility. To Western analysts accustomed to less government intervention, the market's dramatic sensitivity to political rumor and news can be difficult to understand. However, relatively large government shareholdings in many listed companies reduce market sensitivity. From a fund management point of view, low transparency, poor

implementation of securities regulations, and restrictions on hedging and risk management tools remain sore spots – as is the "heavy hand of the government," notes a foreign investment fund executive.

Yet government regulations are limited when it comes to investor education and protection. A brokerage firm in China is not responsible for tailoring its service to the experience level of its customers. Despite serving a diverse clientele, Gao says he recommends "the same mutual fund to all my clients because I trust it." Similarly, the simplicity of the investment account application is astounding, asking three basic questions: name, health and risk tolerance. Based on the responses, a brokerage firm will allow an investor to buy and sell any amount of any security.

More focused on managing market movements, the government has yet to wield its influence extensively to improve requirements for investor protection. As one expert notes, "The Chinese government needs to do a better job of educating investors, especially about market risks.... The lack of quality information often goes beyond bad intelligence to a failure to distinguish between basic investment categories."

Until 2008, most investors in Chinese markets saw only consistent and large gains, which made weighing investment risk less important. In light of this, an acute sensitivity to government policy or market momentum, along with a preference for locking in short-term gains, appear far more rational than in more mature capital markets. If short-term change is the norm in China, it may be fair to ask why a long-term outlook would necessarily be beneficial.

Despite the work-in-progress nature of the mutual fund industry, the market is becoming more developed and efficient. For instance, investor education is increasing. Both regulators and the private sector are running educational seminars and programs, which can slowly lead to investment decisions that are more oriented to the long term. In addition, institutional investment is growing and is a priority for the government. China's National Social Security Fund, with approximately US\$40 billion under management, is beginning to invest – although slowly – in both domestic and international securities. Likewise, many government enterprises are now providing employee pensions. These sources of institutional capital will provide a more stable and long-term-minded pool of capital. Continued growth in the QDII and QFII programs will bring further institutional capital to the Chinese markets.

The Shanghai stock exchange is also developing a global exchange-traded fund, further adding to long-term investment options. Finally, as part of a commitment to making Shanghai a global financial center, China will continue to encourage the investor community to embrace long-term horizons. Overall, despite their current quirks, China's capital markets, specifically the mutual fund industry, appear headed in a promising – and profitable – direction.

This article was written by Matt Anderson, Daniel Curtis, Derek Lin and Ian Van Reepinghen, members of the Lauder Class of 2011.



Corporate Social Responsibility in China: One Great Leap Forward, Many More Still Ahead

Corporate social responsibility (CSR) has grown in leaps and bounds in the last decade in China. Today, the country's most proactive CSR practitioners are taking their cue from western multinational corporations and extending their focus on environmental and social sustainable development far beyond basic philanthropic exercises. But a shortage of local expertise and low public awareness are among the formidable barriers Chinese companies face as they transform their CSR initiatives from good to great.

In the past, corporate social responsibility (CSR) was something only Western companies were concerned about. That is no longer the case. CSR in China, for one, has made great strides over the past 20 years making a big impact not only on future Chinese businesses, but also the country's economic development. Marc Parich, senior associate director at the Beijing office of APCO, a government relations consultancy, notes: "While wary of CSR in the past, the Chinese government has in recent years promoted the practice as a means to fill developmental gaps and meet social objectives."

CSR – according to the International Organization for Standardization, which establishes and certifies management and organization standards worldwide – is about what an organization does "to take responsibility for the impact of its activities on society and the environment, where these actions are consistent with the interests of society and sustainable development, are based on ethical behavior, are in compliance with applicable law and intergovernmental instruments, and are integrated into the ongoing activities of the organization." In

other words, the key for companies that want to perform CSR well is to do so with all stakeholders in mind, including individuals or groups affected by the company's goods or services. Stakeholders can include consumers, government authorities, media, local communities, non-governmental organizations, competitors and/or suppliers.

To many private, for-profit organizations, CSR often puts them in a dilemma. If they are to be functioning economic entities, is it in their – and their stakeholders' – interest to allocate the company's limited resources to further social objectives? One way companies have been addressing that tension is to ensure harmony between the two by melding their CSR practices with corporate strategies.

Chinese CSR is no exception. It works within these and various other parameters just as other CSR practitioners around the world do. But it does have important differences. Before 1980, the danwei, or work unit, was the social hub of urban socialist China. As the sole provider of social welfare, health

care and education, the danwei provided a range of services, from job placements and housing to childcare and education. But when China's economic reform gained momentum, the danwei disappeared.

That's why the recent wave of CSR in China strikes many observers as an important revival of corporate promotion of social objectives. The way Nora Gao, senior manager of Social Venture Group, a Chinabased CSR consultancy, sees it, CSR in China isn't new for most organizations, but rather it's a formal return to the social objectives they once pursued.

Today's current form of CSR was introduced to China by Western multinational corporations (MNCs) during the 1990s. According to Gao, the catalyst was MNCs' efforts to mollify Western consumers who were concerned about labor conditions in their foreign operations, including those in China. To address those concerns, early CSR activities in China were focused on monitoring and enhancing labor standards. It then spilled over to MNCs' suppliers and then was adopted by local companies exporting to Western markets. Now, according to Leo Jia, a founding partner of CSR & Company, another China-based consultancy, "CSR activities...now envisage the advancement of a variety of specific social objectives, such as education, health care or environmental protection."

But there's a big gap between vision and action. APCO's Parich explains that – because initial CSR adoption in China was due, in part, to consumer protests over labor exploitation – the earliest and most basic practitioners felt it was simply a way to receive a "license to operate" in the country – in other words, it was a box-ticking exercise aimed at satisfying local legal and regulatory requirements. "To a large extent, the promotion of CSR in China [has been] about ensuring compliance to basic standards and regulations," he says.

The way Ren Zhiqiang, chairman of Huayuan Group, a real estate company in Beijing, described it to journalists recently was that CSR means operating "in accordance to law and in accordance to fairness – assuring workers' [well-being], while maintaining day-to-day operations within the law." Today, companies in China at the most rudimentary level "observe the law and generally have optimal conditions of operation." Further along the CSR spectrum, however, companies are typically more proactive about interacting with local communities and dedicating corporate resources to the betterment of society.

Government support has been critical in increasing awareness of CSR among local companies. New regulations include an amended company law that requires companies to adhere to social and business ethics as well as fulfill social responsibilities. CSR's scope is now clearly extending beyond labor issues to a broader range of activities.

Same but Different

CSR in China has two unusual features. First, it came to the country from abroad; it was not a response to local consumer demands. In fact, because consumers in China are generally unaware of CSR, they rarely have attained status as an important stakeholder affecting business practices. In contrast, the government is a major CSR stakeholder in China in two respects – it monitors business practices and sets standards for companies operating in the country, and it is involved in companies, as a shareholder, a customer or an operator of government-backed non-governmental organizations, or NGOs.)

The other notable feature of CSR in China is that it is relatively undeveloped. According to the Asian Philanthropy Forum, CSR in China tends to mostly involve short-term actions in the form of philanthropy, whereas CSR in the West has moved beyond this and is being integrated into a company's long-term strategic planning.

The 2008 earthquake in Sichuan province is often cited as a turning point for CSR in China, as it generated an enormous outpouring of volunteerism and an unprecedented number of donations: A case in point: The high-tech multinational Cisco Systems pledged \$45 million over three years to support rebuilding projects in Sichuan. However, according to China-based CSR consultants, the generous response to earthquake relief efforts might be a rare charity event having more to do with nationalism and less with a long-term commitment to CSR.

It is still rare to find companies that fully integrate CSR initiatives in every part of their organisations. A recent study by SynTao, another Chinese CSR consulting company, concludes that local companies are generally not aware of the value of CSR reporting and performance monitoring. The study found that only 121 Chinese companies published sustainability reports between January and November 2008. (As of October 2009, the Shanghai Stock Exchange alone has more than 800 companies listed on it.) What's more, some companies publishing CSR reports only offer the public abridged versions or grant only government authorities and supervisory organizations access to them.

Of Tractors and Technology

According to the study, companies in China decide to issue a CSR report for two main reasons: to enhance their corporate image as part of an increasing awareness and dedication of CSR among senior management, and to satisfy government requirements. For the most part, according to a consultant specializing in government relations in China, MNCs in particular view CSR as part of their "government relations package."

That's the case with Cisco's CSR initiatives in China. Cisco is among China's CSR pioneers that offer important lessons to other companies in terms of the different approaches they can take when launching and managing programs. Having

established operations in China in 1994, the Silicon Valley-based manufacturer of Internet networking equipment has designed CSR activities there to deepen its ties with the local government and develop closer relationships with existing clients, including large Chinese multinationals.

Employing more than 3,000 people in 12 offices and an R&D center, Cisco China has a dedicated CSR department with full-time employees, which reports directly to corporate affairs in Cisco's U.S. headquarters. Although the parent company sets the global CSR strategy and allocates budgets, Cisco China's CSR department is responsible for implementing national activities within those parameters. To get country initiatives in motion, the Chinese CSR department devises its own action plan and is not limited by directives from headquarters.

Another CSR pioneer in China is Caterpillar, a large manufacturer of earth-moving and construction equipment as well as diesel and natural-gas engines and turbines. In 1996, the Peoria, Illinois-based company established Caterpillar (China) Investment Co. Ltd. in Beijing. Today, it has 18 facilities and offices in China, employing over 5,000 people in more than 60 business units. Caterpillar's program is handled by a local corporate affairs department, which helps with the approval and funding of local business units' CSR activities. The corporate affairs team works closely with the Caterpillar Foundation, an independent charity founded in 1952 with a worldwide presence, to determine which CSR initiatives to fund. In addition to relying on the foundation for financial support, Caterpillar China recently began allocating a portion of its budget to support local initiatives.

Both companies, as many others do, align their CSR initiatives with Chinese government programs. For instance, Caterpillar's current initiatives focus on education, health care and environmental

protection. The company has based its initiatives in communities where it has factories, contributing to local human capital development, with the added benefits that the program can be a good way to source its future engineers. Cisco, for its part, focuses on improving the livelihoods of its employees. Its initiatives include career advisory services, diversity initiatives and support for NGOs that employees are involved in. Outside the company, Cisco focuses on developing education and health care.

But as companies like Cisco and Caterpillar know, an array of factors can stand in the way of more proactive CSR activities in China today, including:

Lack of Government Initiatives: A World Bank report titled, "Public Sector Roles in Strengthening Corporate Social Responsibility: A Baseline Study," identifies the government as a main enabler of CSR in developing countries through legislation that stimulates the evolution of civil society. But regulatory restrictions often do exactly the opposite.

In particular, the lack of a regulatory framework limits the development of private NGOs. These are important players in CSR, as they provide program implementation advice to companies, most of which don't have sufficient intellectual or financial resources to plan and run social initiatives in-house. NGOs have expertise, human capital and local knowledge, all of which are crucial for successful CSR initiatives. Both Cisco and Caterpillar partner with local organizations such as these, despite the high level of expertise of their own CSR personnel.

When asked to identify factors that limit the development of CSR in China, Gao of Social Venture Group, cites the underdeveloped nature of NGOs in China. Most companies partner with GONGOs (government-operated non-governmental organizations) because they have state approval to work with disadvantaged

communities and are allowed to issue charitable receipts to Chinese donors. However, some common complaints about GONGOs involve their financial opacity and inefficiency. Grassroots NGOs, which form the largest group of NGOs in China, are seldom targeted for corporate partnerships because they often lack the legal status to issue receipts. The Chinese government is said to be reluctant to advance nonprofit development, especially in relation to sensitive social issues.

Lack of Expertise: The under-development of NGOs has not only hindered the evolution of corporate CSR initiatives, but also limited the development of a strong local CSR workforce. There is a lack of professional expertise in both companies and nonprofits. The result: CSR activities are not as effective and efficient as they could be. That explains why many companies integrate CSR with other departments so that CSR planning and implementation are frequently undertaken by the same staff who are responsible for government or public relations.

Furthermore, independent CSR monitoring and benchmarking do not exist in China. Although some companies have internal metrics to measure CSR effectiveness, there is no uniform benchmark within the community, except at the pure donation level. As SynTao's study highlights, disclosure of CSR is patchy at best, making it difficult for external stakeholders to stay abreast of the latest developments. The absence of external scrutiny of a company's CSR strategy and implementation leaves one less incentive for companies to raise the bar.

Lack of Consumer Awareness: Leo Zhang, senior research analyst at Social Venture Group, confirms that CSR awareness among consumers is generally low. "Because CSR in China did not evolve as a response to local consumer demands, there is little pressure from the market to implement CSR," he says. What's more, because market competition in

China is still based mainly on price, companies face immense cost-saving pressures, making it easy for some of them to justify their "license to operate" status.

Experts say few, if any, local consumers pay attention to a company's CSR program. Cisco, in fact, acknowledges that its CSR activities are not aimed specifically at raising awareness about particular issues among consumers. But experts say that even if CSR may not be in response to demand from the market at the moment, ongoing initiatives will, no doubt, help cultivate greater awareness of CSR externally in the long term.

All Together Now

Given the top-down trend in China's CSR, the government, its organizations, and private local and foreign companies can all encourage its growth. The most pressing areas for allowing companies to engage in more proactive CSR activities in China include:

Regulatory and Operational Environment: The government is integral to building a regulatory and operational environment that is conducive to CSR. In particular, it can offer tax incentives. That is already been happening to some extent. In 2007, a new law for corporate income tax was introduced to raise the permissible level of tax-deductible donations from 3% to 12% of annual profits. Huang Haoming, director of the China Association for NGO Cooperation, says the initiative should spur companies to increase their financial assistance to NGOs in China.

In addition, the government can also encourage information sharing among stakeholders to help CSR activities develop efficiently. Currently, limited CSR information is available for stakeholders, especially the general public. However, the situation is changing rapidly. One reason why, according to Mihela Hladin, founder of Greenovate, a

consultancy specializing in CSR development in China, is that local media coverage of CSR has increased dramatically. While this is a step toward greater public awareness, the government can accelerate the process by mandating the publication of CSR-related information in a central repository, such as in annual reports. This will ensure that relevant information is accessible for all stakeholders, which will, in turn, improve the quality of the disclosures.

Various regulators have already taken a step in that direction. For example, in 2008 the Shanghai and Shenzhen stock exchanges have thrown their weight behind the movement by publishing papers about why CSR in general is important for listed companies. As a result, the number of companies releasing CSR reports shot up to 121 reports in the first 11 months of 2008 versus 77 the entire previous year.

Expertise Development: A recurring theme in CSR development in China is its undeveloped talent pool. But Chinese companies now know that CSR is at the forefront of the government's agenda. The government has begun promoting CSR as a social objective in China, helped by its recent mandate that state-owned enterprises set up independent CSR departments. This could help attract more people to the field.

Public Awareness: Enlightening the general public and employees is also necessary to develop CSR. For example, in 2009, Shanghai's municipal government sponsored a social venture competition, in part to raise awareness of CSR-related issues. The general public should also be reminded that they, in addition to the government and investors, represent an important group of stakeholders.

Collaborating with mass media is an effective way to raise public awareness. At Cisco, its CSR initiatives have been attracting positive media coverage, which sends a strong message to potential new clients and contributes to a vibrant, socially aware work ethic in the company. As a result, the socially minded younger generation of jobseekers who share Cisco's ethos to – in the words of its corporate motto – "change the way the world works, lives, plays and learns," will consider the company a good employer to work for.

Chinese CSR is unlikely to replicate its Western counterpart soon, but evolve with its own special characteristics. In a developing economy such as China, CSR has the potential to aid much-needed social progress for a large and important part of the population. The challenge is to foster CSR so that it is not only efficient and effective, but also can generate a virtuous circle of benefits to business and Chinese society.

Jia of CSR & Company says, "Active engagement in CSR activities presents a mutually beneficial opportunity for private corporations on the one hand and society as a whole on the other." The reality for companies in China today is that they are operating in a rapidly changing society with an increasing awareness of CSR and should assume an active role in promoting CSR. First and foremost,

companies can stimulate the implementation of macro measures. In terms of promoting awareness, companies can publish CSR annual reports and improve CSR metrics.

Foreign and Chinese companies can strengthen the expertise in the field by recruiting and developing professional CSR staff. By acknowledging that finding specialized professionals to integrate CSR into an organization's business strategy is a major challenge, companies can create dedicated CSR posts and provide these employees with formal training. Companies can also enhance the autonomy and capability of their CSR departments, enabling intra-company specialization with regard to CSR. In addition, they can encourage the growth of a socially-conscious public by providing incentives to their employees to participate in CSR activities, being creative in communicating these activities to customers, improving how they engage the media and developing products that feature their contributions to society.

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Behind the Behemoths: The Development of China's Second- and Third-Tier Cities

As Shanghai and Beijing draw the eyes of the world toward China, another drama is playing out in remote parts of the country where cities like Changsha, Chengdu and Wuhan, unheard of by most, seek to join the ranks of the world's largest urban areas. Yet reluctance to implement market-driven development at the local level of these second-and third-tier Chinese cities, combined with a lack of national oversight and coordination, have led to overlapping development strategies, causing industrial oversupply and preempting efficient industrial development.

As Shanghai and Beijing draw the eyes of the world toward China and enter the lexicon of dinner conversations around the world, another drama is playing out in remote parts of the country where cities like Changsha, Chengdu and Wuhan, unheard of by most, seek to join the ranks of the world's largest urban areas. These second- and third-tier Chinese cities are developing under a laissez faire central economic policy. While the four provinciallevel municipalities of Beijing, Shanghai, Tianjin and Chongqing are administered directly by the central government, provincial- and township-level authorities manage local command economies that direct the development of most Chinese cities. Reluctance to implement market-driven development at the local level, combined with a lack of national oversight and coordination, have led to overlapping development strategies, causing industrial oversupply and preempting efficient industrial development.

While the prevailing view of China's governance is one of authoritarian control, the history of economic development in China has actually been a story of tension between the central government and the provinces. This tension was most apparent during the early twentieth century, after the fall of the Qing dynasty, when several renegade provinces seceded from Beijing.

The early Communist period from 1949 to 1962 marked the golden age of centralized power, with Beijing using Soviet-style planning principles to maintain unprecedented control over the national economy. However, this centralization all but eliminated responsiveness to local conditions, exacerbating a famine during Mao Zedong's Great Leap Forward industrialization campaign.

Beginning in the late 1970s, Deng Xiao Ping initiated the Reform and Opening policy aimed at establishing a market economy. This reform initiative released power to local administrators, with local government units constituting the key drivers of economic growth. While Deng's reforms are uniformly credited with propelling the massive wave of economic growth that continues today, the

accompanying decentralization allowed a resurgence of provincial power and the rise of "economic warlordism," with provincial authorities neglecting central orders and competing for localized economic benefits. Today, local and provincial authorities continue to direct localized development schemes, resulting in structural imbalances in the national economy.

The Second- and Third-Tier Cities

While China is often portrayed as a single economic entity, the country actually comprises three distinct economic regions, each of which presents a unique economic landscape for urban development.

According to Xu Fei, professor of economics at Shanghai Jiaotong University, the eastern coastal provinces are the most developed, utilizing 71% of foreign direct investment (FDI) in 2007. These provinces include Beijing; Tianjin; the Yangtze River Delta regions of Shanghai, Jiangsu, and Zhejiang; and Guangdong in the Pearl River Delta. These areas comprise 14% of China's land area, 42% of its population and 60% of its GDP. The manufacturing prowess of these provinces constitutes China's economic engine, driving the country's exportoriented growth model. The region's combined GDP output was RMB17.0 trillion (USD\$2.5 trillion) in 2007, and its per-capita GDP was RMB30,140 (USD\$4,432).

In contrast, central Chinese provinces such as Anhui, Henan, Hubei, Hunan and Shanxi comprise 30% of China's land area and 33% of its population, but only 25% of its GDP. This region relies on an outdated industrial base made up of state-owned enterprises. Fei explains that the central provinces "once had solid infrastructure, but since the introduction of Deng's market economy in the early 1980s, insufficient investment has caused [these] provinces to fall behind the booming coastal region. Therefore, much of the infrastructure in the central region is outdated." This has left the region

largely dependent on agriculture and other primary industries, which together constitute 15% of its GDP. The total GDP output of these provinces was RMB7.0 trillion (USD\$1.03 trillion) in 2007, and the per-capita GDP was RMB15,684 (USD\$2,306).

Finally, western provinces such as Gansu, Qinghai, Sichuan, Yunnan and Tibet lack an economic base due to their rugged and inhospitable geography. Together, these provinces comprise 57% of China's land area, 25% of its population and 15% of its GDP. According to Fei, "unlike the central region, the western provinces never had any infrastructural development." Consequently, development of basic infrastructure through policy initiatives, such as Develop the West, has become a primary goal of the central government. Furthermore, the governmentinitiated stimulus of 2009 has allocated substantial resources to such infrastructure development. As of 2007, the combined GDP output of the western provinces was RMB4.3 trillion (USD\$632 billion), and the per-capita GDP was RMB12,363 (USD\$1,818). The industrial production value was RMB974 billion, only 8% of the national total.

With the development of basic infrastructure in the western provinces, companies such as Intel and Toyota are moving their facilities inland from the coastal provinces, creating a potential windfall for local governments. One government official of a Hubei city, who asked to remain anonymous, states: "We are looking for investment in any industry, and we will work out a tax package to encourage investors to come." Consequently, each province is attempting to develop its largest cities into economic powerhouses, boasting pillar industries such as steel, cement and automobiles. This phenomenon is creating product oversupply and the need for industrial consolidation.

Fei warns that locally controlled development, lacking an overarching, coordinated plan, can lead to redundant industrial investment across provinces. He cites the overabundance of automobile manufacturing as a prime example: "In 2002, over 100 motor vehicle manufacturers were competing in an increasingly saturated market." The Chinese automobile industry stood as an extreme example of uncoordinated, locally driven development and has recently become the target of a centrally mandated consolidation.

Two Cities in Transition

The cases of Qingdao and Chengdu illustrate the localized dynamic of modern Chinese urban development. Qingdao is a coastal city attempting to correct structural and zoning issues stemming from rapid, uncoordinated development. Chengdu, a western city, also faces challenges from rapid economic growth. However, competent technocrats are running the city's planning offices with input from the central government. This local-central collaborative effort may serve as a model for future urban development in China.

Qingdao, the birthplace of Daoism, is marked by a tumultuous past of invasion and re-creation. From 1897 until the outbreak of World War I, Qingdao was under German control. In 1914 Japan took over and continued colonial rule. When the May 4th movement was launched in 1919, protestors demanded the resumption of Chinese sovereignty over the city. Japan re-invaded in 1938 and maintained control until 1945, when the nationalist government overtook the city.

Since the Communist Revolution of 1949, Qingdao has enjoyed rapid economic growth. In 1984, the central government named Qingdao's Huangdao district a Special Economic and Technology Development Zone (SETDZ). This district and the entire city witnessed the dramatic development of secondary and tertiary industries. As an important trading port, Qingdao has enjoyed abundant foreign investment and international trade. In 1994, it was named one of the country's 15 vice-provincial-level cities.

In 2008, the per-capita GDP comprised RMB52,895 (USD\$7,616). The GDP has grown steadily at an average pace of 16% annually. Internationally, Qingdao is best known for the Tsingtao Brewery, founded by German settlers in 1903. It is also home to Haier, a large appliance manufacturer, and Hisense, a major electronics company.

By the end of 2006, Qingdao's urban area was estimated to be home to approximately 8 million residents, about 3 million of whom live in Qingdao city proper. Another estimated 5 million live in satellite cities under Qingdao's jurisdiction. Qingdao's living standards are among the highest in China due to its strong export economy and relatively high per-capita GDP.

In recent years, the Qingdao government has initiated an ambitious development plan similar to those of second-tier cities across China. This plan seeks to transform the city into a commercial and financial center driven by tertiary industry, namely tourism. Implementation of this plan has forced the Qingdao government to remove existing factories from the central business district to allow for commercial and residential development.

The factory relocation process is characterized by a lack of national oversight, which leaves room for local adaptation and corruption. Currently, the local government undertakes a valuation of the land on which a given factory sits. Following the appraisal, the company receives 40% to 50% of the land value and has two years to relocate to a rural area. The relocation sites include Qingdao's five satellite cities: Jiaonan, Rizhao, Pingdu, Jimo and Laixi. The company receives the remaining 50% to 60% of the initial land appraisal value after relocating, after which the Qingdao government publicly auctions the land.

In addition to the government taking advantage of land-value appreciation and controlling the appraisal process, private enterprise is frustrated by other side effects of relocation, e.g., retaining talent. Current government efforts to promote talent relocation have proven unsuccessful.

On the flip side, China's rural areas are fighting for the opportunity to attract the relocating factories to their newly created development zones. Representative offices of the satellite cities have recently been set up in Qingdao to help attract these companies. The director of one such office notes that "[t]he office was set up in Qingdao because our city is too far away and the people of Qingdao believe that it is a very poor place, unsuitable for development. Our office facilitates communication and the opportunity to introduce the modern day situation of our city to more investors without forcing them to travel outside of Qingdao proper."

Attracting outside investment is not the only purpose of the representative offices. They also facilitate building relationships with officials from Qingdao's legal and trade bureaus, who are responsible for the factory-relocation process. This process is often influenced more by personal relationships and business interests than by a vision for what is most beneficial to the city. Building personal relationships with these officials is, therefore, essential for developing the satellite cities.

Industrial land prices are fixed by the provincial government at RMB96,000 (USD\$14,118)/Mu (1 Mu = 666.66 square meters), but industrial land is regularly sold at half that figure or less. In addition, taxes are reduced illegally and infrastructure fees are waived as local officials compete to secure investment in their districts. While the relocation process allows Qingdao to remedy past zoning mistakes, the lack of coordination and disregard for rule of law create a certain level of chaos for satellite cities.

One Qingdao official noted that "in order to attract more investment, infrastructure needs to be developed for service industries. Furthermore, government leaders need to view themselves as servants to investors rather than controllers, and strict regulations need to be formed by the central government to map development and provide guidelines for local government behavior." The official also hopes to see a greater push for the education of China's youth in order to meet the requirements of internationalization. "English and international regulations are key."

Competition for Skilled Labor

In 1949, Chengdu had a population of 600,000. Today it has more than six million. This city has long been the standard-bearer of southwest China's political, cultural and economic development. Its urban population has been growing at a rate of 5% for the last 15 years, and the population of undocumented workers has been growing at a rate of 17% per year. Over the same time period, the service sector has expanded from 50% of GDP to 55%. Chengdu enjoys abundant natural resources, a well-educated population and low-cost labor.

According to the McKinsey Global Institute's report Preparing for China's Urban Billion, Chengdu faces three major challenges to its continued growth. First, there is ferocious competition for its skilled labor, particularly from the large coastal cities of Beijing, Shanghai and Guangzhou. Second, there is a growing economic imbalance between Chengdu's urban and rural areas. Finally, the report notes the possibility of Chengdu's low-cost labor advantage eroding over time. Pan Xin Chun, of the Chengdu Hi-Tech Industrial Development Zone, believes that many problems have arisen from short-sighted city planners combined with the blazing speed of development. "We no longer have one guy in the city planning office who sketches something up that is immediately implemented. Instead, we now use domestic and international design firms, hire

respected consulting firms to evaluate proposals, and review all plans before they are implemented." While Pan feels the situation has improved, he believes zoning problems may re-occur within the next 20 years as the city expands further.

In 2004 the Chengdu city government enacted the Three-Concentration Policy to meet the rising problem of rural-urban imbalance caused by rapid development. This policy promotes the concentration of the city's industrial base, the development of large-scale agriculture, and the "townization" of dislocated farmers. This "townization" process provides displaced farmers and villagers with resources to create local businesses such as shoe-making and tourism. In addition, it promotes the urbanization of Chengdu's outlying areas. The Three-Concentration Policy includes creating large industrial zones on the eastern and western peripheries of the city, closing factories near the city center and consolidating arable land. This policy has decreased the number of industrial zones from 166 to 20 and has resulted in increased agricultural productivity. Pan indicates that state-owned enterprises, having already been relocated from the city center, are moving once again to outlying areas. Although an attempt is being made to move polluting industries out of the city proper, all industry is to stay within the Chengdu municipality rather than be pushed to other cities. This placement of industrial enterprises, directed by the Chengdu municipal government itself, differs from the factory relocation system in Qingdao and reflects greater coordination in the implementation of national objectives.

As Chengdu develops, it continues to both shape a well-defined strategy that plays to its historical strengths and respond to ongoing development challenges. According to Pan, "Chengdu is targeting electronics, heavy machinery, cars, Chinese medicine, aviation, telecom, biology, and software companies." To attract finance, commerce and trade talent, Chengdu's government is supporting private firms in these industries to provide packages with higher pay and better social benefits. The city is also attempting to increase the number of college graduates to ensure that the future demands of Chengdu's development will be met.

Most importantly, Chengdu's strategic position as a center for western development has placed it at a level of national involvement that is uncommon outside Beijing, Shanghai, Tianjin and Chongqing. In particular, the city has benefited from the central government's oversight, ensuring that the top administrative talent is given important roles within the municipal government, effectively coordinating local and national strategies. It is this coordination that has helped steer the city's leadership and planning and makes it a potential model for other developing cities.

Challenges and Solutions

The single greatest challenge facing those who shape the modern Chinese economic landscape is the lack of coordination among local command economies. The effects of this phenomenon manifest themselves in a variety of ways that hinder the effective and sustainable development of second- and third-tier cities.

Leaving the fate of economic development in the hands of local governments can have adverse effects on the long-term prosperity of developing cities. This is due, in large part, to local officials' evaluations based on GDP growth within the geographic area under their supervision. According to Fei, "this leads officials to be shortsighted in their development vision, attempting to capture as much short-term profit as possible in order to secure their political prospects." In addition, environmental quality continues to deteriorate, and increasing numbers of college graduates find themselves highly educated, misallocated, and underutilized.

In combating shortsightedness, pollution, and corruption, the central government should enforce greater cooperation and coordination among all levels of government. Recent central initiatives – e.g., posting experienced Shanghai officials to leadership roles in such critical western cities as Chongqing and Chengdu – have proven successful in increasing coordination between these cities and the central government. Extending this strategy to other second- and third-tier cities would lay the foundation for improved coordination, allowing for strategic industrial development and the more efficient use of national resources.

Although China faces challenges created through decades of uncoordinated local initiatives, centuries

of occupation, and millennia of power struggles between central and local governing bodies, it is undeniable that the "sleeping dragon" has awoken. China's governing structure now allows for quick policy decisions and rapid implementation. It is imperative that the central government use this strength to coordinate local and provincial-level economic planning. Without such a strategy, local government units, acting as independent command economies, will continue to stymie the implementation of Deng Xiao Ping's market reforms and lead to inefficient industrial development.

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Japan's Eco-Technology Gets the World to Go Green

Can economic development and energy efficiency co-exist harmoniously? Japan says they can. Creating a domestic market for green technology – or eco-tech – has helped the world's second-largest economy reduce emissions relative to GDP while creating new markets for its private sector, from hybrid cars to eco-friendly household appliances. The key has been a combination of government initiatives for both consumers and companies, providing lessons for other countries around the world.

Over the years, Japan has created a culture that encourages moderation and discourages waste. They even have a word for it – *mottainai*, which according to the *Daijirin* Japanese dictionary, means "a sense of regret concerning waste when the intrinsic value of an object or resource is not properly utilized." *Mottainai* has made the leap into other cultures and sparked an international movement promoting humble conservation and an obligation to protect the earth for future generations.

But the debate in recent times is whether *mottainai* and economic development can co-exist successfully. Japan has shown that they can, by doubling its GDP while improving the country's energy efficiency by over 37% and reducing oil consumption by 8% since the 1980s. And it's not only cultural influences that have driven Japan's conservation efforts. Necessity has played a role, too. The country imports between 80% and 90% of its energy resources, according to government estimates, creating a pressing economic reason for conservation.

For those reasons, Tokyo has been on a mission to promote environmentally responsible technology,

or eco-tech. In a speech in 2008, then Prime Minister Shinzo Abe stated, "A low-carbon society is one that offers great opportunities for economic activity that is compatible with the environment." Speeches by other top officials along with ambitious policies have made it clear that eco-tech is an economic priority for the country and the government has used a combination of top-down (supply) and bottom-up (demand) strategies to develop an eco-tech industry.

Take It from the Top

One of the primary ways the government has deployed top-down strategies in the eco-tech market is by having the state finance and lead research. Thanks to a formidable track record throughout the second half of the last century, Japan has shown other countries how government-sponsored R&D can indeed generate private-sector innovation.

Among the most notable initiatives was the large-scale R&D system under the Ministry of International Trade and Industry (MITI). Often referred to as *O-puro*, or Big Projects, it was

launched in 1965 to help Japan's private sector develop, through industry-state-academia cooperation, technologies that it would otherwise not be able to on its own because of the prohibitive costs and high risks involved. MITI did this by identifying and funding visionary technology managed through internal and external corporate research consortia. The model achieved some remarkable successes. An oft-cited example is the VLSI project, which as Martin Fransman explains in his book, Japan's Computer and Communications *Industry*, was initiated in response to a similar plan being developed by industry-leading IBM. The project subsequently helped Japanese manufacturers capture 70% of the world large-scale integration (LSI) memory market.

However, as officials from the Ministry of Economy, Trade and Industry (METI), MITI's successor, recall, the model's future became "unclear" in the 1980s, after Japan caught up with the United States technologically and MITI's vision faltered. Among MITI's missteps were the super computer and fifthgeneration projects, conceived in the 1980s, in an attempt once again to challenge IBM's industry supremacy at the time. Several of the radical new technologies MITI chose had limited commercial relevance and worse, MITI failed to anticipate the pending paradigm shift in computing of the microprocessor. Despite heroic sentiments, Japan failed to become the computer industry's trendsetter.

Japan responded with policy reforms, shifting from an emphasis on basic research to create the Council for Science and Technology Policy (CSTP), a body comprising cabinet ministers and external experts. CSTP aims to ensure that experts – rather than bureaucrats – have the final say on the government's technological investments. Today, CSTP reviews proposals from government ministries and ranks them according to their consistency with the ministries' and government's plans. According to

Yuko Harayama, a former CSTP executive member, proposals receiving the highest rank of S ("special") will be accepted into the government's annual budget request with little additional scrutiny, while those that receive the worst grade of C are likely to be rejected.

These rankings also apply to eco-tech, including the new generation of rechargeable batteries. Through a project launched in June 2009, the government wants to develop technologies to allow batteries to store three times more energy than they do currently. Toyota, Panasonic/Sanyo and Kyoto University are among the 22 members of the project's research consortium. The development of the battery, a crucial component in hybrid and electric vehicles, will be financed and managed by METI's New Energy and Industrial Technology Development Organization. In contrast to the large projects of the past, METI is focusing on the basics, analyzing the general mechanics of batteries rather than developing a single technology that METI, rightly or wrongly, predicts will revolutionize the industry. The rest is left to industry and academia, according to a METI official.

Despite the change of approach, METI continues to commit Japan to a broader technological direction, which essentially still exposes the country to the risk of not anticipating a paradigm shift, such as the rise of another microprocessor-like phenomenon. However, the more basic research-oriented approach is an improvement from the former Big Projects and an example of how Tokyo is financing environmental research in ways that are better at coping with a world of fast-changing and unpredictable technologies.

A second top-down approach is Japan's ability to influence domestic industries through policy and regulation. Japan has one of the strictest emission standards in the developed world and is leading OECD members in regulating toxic chemicals.

Japanese companies, subject to high environmental standards in their home market, have incentives to innovate in order to remain competitive in markets that are beginning to embrace tougher environmental regulation. Harvard Business School professor Michael Porter and the other co-authors of *Can Japan Compete?* argue that Japan's 1979 energy conservation law triggered efforts to reduce energy usage and led to the invention of the rotary compressor, a technological breakthrough that gave Japan world leadership in compressor technology.

Incentive to Innovate

As another example of how government is influencing eco-tech, one of METI's new regulations aims to curb residential and commercial energy consumption by setting best-of-class performance standards for products ranging from passenger vehicles to vending machines. Under the regulation, energy consumption standards are reset periodically and the most energy-efficient product is systematically used as the norm. It has several advantages over the more arbitrary methods of other regulators in that it leads to more stringent standards being put in place more quickly. From corporate Japan's point of view, there's a greater incentive to develop innovative green products, which could become de facto standards.

Fluorescent lights were among the first products to be targeted by the policy; between 1997 and 2005, sales of these energy-efficient lights increased 36%. It is not a coincidence that Japanese companies continue to conduct research in the field. For its part, Panasonic began marketing a new light fixture in 2007 that further decreases energy consumption by more than a third.

Japan is not the only country to encourage innovation through regulation. The U.S. Congress passed a federal energy bill in 2007 to begin phasing out inefficient incandescent lighting in 2012. The

bill has spurred significant innovation in lighting technology from both domestic and international manufacturers. This is in sharp contrast with the scant innovation the technology underwent over the entire last century. But Japan's program goes further than the one-off changes introduced by the U.S.'s bill by having standards reset periodically.

Some Japanese electronics makers, in the face of tough domestic regulation, are putting eco-friendly products at the core of their strategy. For example, Panasonic's environmental policy is more than a corporate social responsibility exercise. The company is dedicating an entire section of the Panasonic Center in Tokyo to showcase energy-efficiency improvements of its products. It also took a bold step in the middle of the recent credit crisis by acquiring Sanyo, a market leader in solar cells and rechargeable batteries for hybrid cars.

Auto making is one sector that is arguably among the sectors that has benefited the most from the government's eco-tech drive. For example, as part of a METI-sponsored research consortium, Panasonic has also branched out into the auto sector, developing batteries that will triple the range of hybrid cars by 2020. What's more, local regulation also encouraged the country's auto makers to enter the hybrid car market, in which Toyota and Honda are now global market leaders.

Japanese companies benefit from environmental regulations in other countries, too. An amendment to the 1970 U.S. Clean Air Act set the most stringent emission standards in the world. Honda, still a small player in the auto market at the time, seized the opportunity to design and launch the Civic CVCC, the first model to qualify under the new standard. This allowed the company to grab a leading position in the U.S. market for energy-efficient cars, a market that has been growing ever since.

From Supply to Demand

In addition to the top-down approach on the supply side, the government has been rolling out a number of domestic consumer-oriented subsidy programs to help create more markets for eco-tech products. The two largest and most successful programs are those involving subsidies and tax reductions encouraging consumers to buy fuel-efficient vehicles and the eco-point system for home appliances.

In terms of eco-friendly cars, tax reductions are granted to consumers who purchase low-emission and fuel-efficient vehicles, while there's a 10% surcharge slapped on diesel vehicles that are 11 years or older and for gasoline vehicles 13 years or older. Also being considered is a "scrap incentives" program, which is similar to the cash-for-clunkers plan launched in the U.S. by President Obama in 2009 which paid consumers to replace older vehicles with newer, more environmentally friendly ones. Tax breaks and rebates on low-emission vehicles have helped two hybrids, Toyota's Prius and Honda's Insight, become best sellers, having the dual effect of stimulating sales of eco-friendly products and giving the stagnant national economy a boost.

The "eco-point" program also shares those goals. The idea is that consumers are given incentives to participate in environmentally friendly activities and purchase environmentally friendly products. The number of eco-points are awarded according to a product or activity's ability to reduce pollution, and now covers a range of activities, from the obvious – energy-efficient appliances, car pooling and energy-efficient home renovations – to the more innovative – second-hand purchases, refusing room service at hotels or plastic bags when shopping, and CO₂ emissions-reducing lifestyle changes. Points can be redeemed for e-money, vouchers and carbon offsets. It has not only helped stimulate consumption, but also raised the profile of

eco-friendly products. The program generated 1.52 million eco-point redemption applications, worth 10.4 billion yen in July and August alone in 2009, according to METI.

The government also wants to offer subsidies to promote "over-the-horizon" green technologies that are currently not economically viable for consumers. The most prominent example is the EcoCute product subsidy. It gives up to 100,000 yen to each household that upgrades to an approved energy-efficient electric pump, which uses heat extracted from the air to heat water. These pumps consume a third to a quarter less energy than standard water heaters but at prices starting at 500,000 yen, about five times more expensive than the cheapest water heaters.

Even further on the horizon is a plan to turn all households into small energy producers through fuel-cell systems. Known as EneFarms, the systems combine hydrogen with oxygen in the air to produce electricity and hot water in a pollutant-free manner. Because the technology is relatively new, the systems are expensive – typically costing more than 3 million yen, with the government subsidizing up to nearly half the amount.

Lofty Ambitions

With basic frameworks in place, the government has unveiled lofty plans for not only the country's eco-tech companies but also Japan's place in an increasingly eco-conscious world. In 2007, then Prime Minister Abe, referred to the plan as Cool Earth 50, which, he said, sets "a long-term target of cutting global emissions by half from the current level by 2050...for the entire world." Then, during the G8 summit in July 2008, Abe's successor, Yasuo Fukuda, rolled out Japan's proposed plan for taking the Kyoto Protocol beyond 2013 and furthering Japan's goal of lowering global emission rates.

The plan is ambitious. It calls for an initial investment of \$30 billion over five years in three primary areas of innovation – technology, lifestyle and infrastructure. The majority of the budget will go to supporting corporate R&D initiatives, such as hydrogen-powered cars, improved solar-panel technology, and domestic co-generation and fuel-cell technologies, such as hot-water and power systems.

Each of these areas is expected to grow significantly. For example, annual sales of "next-generation" vehicles are projected to increase from 2% in 2005 to over 50% by 2020. The number of homes using solar-powered panels is expected to increase from 320,000 in 2005 to more than 3.2 million by 2020, and the use of domestic co-generation and fuel cells in homes is forecasted to increase from 700,000 units to 28 million units over that same period.

The government says much of this rapid growth will be due to the lower costs of running eco-friendly technology and subsidies to consumers. Meanwhile, Cool Earth 50 has earmarked funds to develop educational programs about eco-tech for Japanese consumers.

As for R&D funding, in addition to the \$30 billion, another \$10 billion budgeted will be spent in developing countries. Much of this funding will be used to purchase Japanese-manufactured eco-tech in countries such as Senegal, Madagascar and Guyana. As former Prime Minister Fukuda noted, "Japan is ready to look into...creating a new financial mechanism with a substantial [pool] of funds for [the]...long term, and calls on other industrialized countries and international

organizations, such as the World Bank and the United Nations, to respond and take part in this international cooperation." Through financial incentives, Japan hopes that a greater number of developed countries might be motivated to invest in eco-tech, expanding the program globally and broadening the market for Japan's green products.

Creating a domestic market for green technology has helped the world's second-largest economy reduce emissions relative to GDP while creating new opportunities for corporate Japan. As other governments begin embracing environmentally conscious policy making, many Japanese companies have already begun racing ahead in a field poised for rapid growth. However, government tech spending involves the same risks they always have. If the market does not mature as expected, the opportunity costs will be great. The government needs to place as much emphasis on communicating the importance of eco-tech as it does on the development of the technology.

Japan has successfully leveraged its domestic strengths to develop superior products at home before taking that ingenuity abroad. However, as Japan faces a shrinking domestic market, it must also forge a stronger presence in the international community to ensure that the value of the county's eco-tech innovation is fully realized. The last thing it wants to see is its eco-tech efforts become mottainai.

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