

2013

THE LAUDER GLOBAL BUSINESS
INSIGHT REPORT

Building Blocks for the Global Economy





Introduction

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In this special report, students from the Joseph H. Lauder Institute of Management & International Studies present new perspectives on some of the latest developments in the global economy.

The articles cover a wide variety of topics related to consumer markets around the world — including online dating and consumer credit in China, e-commerce in Brazil, retail chains in Russia and tourism in Colombia — showing how advances in technology and traditional market forces blend together to produce new opportunities for companies.

The transformation of more established industries in the wake of the financial crisis is another topic that is driving innovation. German beer companies, Colombian coffee firms and French wineries are analyzed with a view to identifying the prospects for global growth in well-established product categories.

People and human resources are vital components of the knowledge-based global economy of the 21st century. Articles on education in Brazil, Colombia and India report on new institutional arrangements and private initiatives in this area.

Entrepreneurship and managerial careers are the topics of articles that cover new developments in high-income markets such as France and Japan along with those in emerging economies such as Colombia and China. In addition, the report offers an in-depth look at silicon wafers and semiconductors in the Gulf.

Finally, this year's report analyzes private equity in Brazil and Colombia, two intriguing new markets, and explores the issue of water scarcity, one of the world's biggest challenges in the coming decades.

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Consumer Credit in China

“I’m a little embarrassed.” Liu Jing leaned in closer and lowered her voice, revealing for the first time a hint of discomfort since the topic of credit cards had been broached. After a pause, she smiled, took a breath and said, “but let’s chat.”

Liu was born in Henan, a province in central China 600 miles northwest of Shanghai. Despite coming from a solidly working-class family, she was encouraged to study hard as a child and prepare for the *gao kao*, China’s rigorous college-placement examination. She received high marks and earned a coveted position at a public university in Beijing. While she had studied English in Henan, it was not until she arrived in Beijing that she discovered her gift for language.

After four years at the university and despite never having left mainland China, Liu gained a strong command of English and an understanding of Western culture and business practices. She stood out as a model of success within China’s stunted education system. She cultivated her skills by befriending Western exchange students and young British expatriates working in the capital. Due to her competent English, she landed a position as a junior executive at a digital advertising firm. While her salary was slightly below the entry-level standard for white-collar jobs in China, the position allowed her to remain in vibrant, growing Beijing.

Soon after entering the workforce, however, Liu began to grapple with economic reality. Her salary barely covered her rent and other basic necessities. She also realized that with Western friends came lifestyle choices. If she wanted to maintain her English skills, she would have to be comfortable accompanying her Western friends to restaurants and bars, which meant additional spending.

On the back of a napkin, Liu spelled out her financial conundrum. As a junior executive, she netted 5,000 RMB (US\$800) a month after taxes. From this, she paid 2,000 RMB (US\$320) per month in rent for a shared flat near Beijing’s fourth ring road. This left her with 3,000 RMB (US\$480) a month in disposable income, or 100 RMB (US\$16) a day. With this sum, she had to cover her remaining living expenses. Liu tried to stretch her income as best she could, but when she suddenly lost her job due to a company acquisition, she was hard-pressed to make ends meet.

At this moment, a friend recommended that Liu apply for a UnionPay credit card from one of China’s large state-owned banks. She was hesitant at first, given the Chinese cultural tendency to avoid borrowing, but this was the help she needed. As she was no longer employed and was in a weak position to apply for a line of credit, she begged a friend in the accounting department of her former company to forge the necessary documents to show she was still employed and had a monthly income. Begrudgingly, her friend helped. A month later, Liu had her first credit card.

At first, Liu used the card to make ends meet. She would borrow against her credit at the beginning of the month and pay off most of the balance within 30 days. But as time went on, the allure of this “extra” income and the social benefits it allowed compelled Liu to slowly increase her borrowing. She soon discovered that borrowing is a slippery slope.

After using the card for one year, she had accumulated debt of 15,000 RMB (US\$2,400), or three times her previous monthly income. “I don’t really know exactly how my credit card works, like how much interest I need to pay every month,” she acknowledged. Even so, she was acutely aware that this money would need to be repaid eventually.

She had no plan for paying off the balance. She would try to save more, and perhaps her next job would pay her a higher salary. Until then, Liu Jing, an exemplar of China’s new middle class, was trapped.

A Variety of Credit Options

Despite a personal credit system that is underdeveloped by Western standards, China has a long history of informal personal finance. Both usury and interpersonal interest-free lending date back nearly 3,000 years to the Western Zhou period. Cooperative loan societies, known as *she*, originally established by Buddhist monasteries, were set up to fund large one-time expenditures such as funeral or travel expenses. Non-religious organizations also were formed to service other sectors of society. Mutual financing associations, known as *hui*, allowed members to contribute a set amount to a common pot each month. A lottery system, often a simple shake of the dice, determined who could use a portion of the funds that month. Participants would usually use the money to purchase large and relatively expensive assets. A farmer could use the funds to buy a new cow, or a merchant could invest in a new riverboat. The *hui* were hyper-local, and participation was often driven by patrilineal duty. This tradition continues in China today, where it is not uncommon to find small villages pooling their resources to help a resident make a critical investment.

While traditional Chinese society offered a wide variety of credit options to both wealthy merchants and peasants, by the early 20th century, China’s personal credit industry was in flux. With the rise of larger and more sophisticated banks in China during the 19th century, most high-level lending began to flow through official banks. In 1929, the Chinese Communist Party banned usury on an individual level. When the People’s Republic of China was founded in 1949, private lending institutions were banned nationwide. The only

remaining options for personal credit were the remnants of the traditional *hui* and *she* lending networks. The market for private lending remained shut until the 1980s, when, following the start of Deng Xiaoping’s Reform and Opening movement, banks began formal lending programs and modern credit systems began to develop.

Since being introduced in 1985, the number of credit cards issued in China has grown at an astonishing rate, reaching 285 million in 2011, five times the number in 2006. Growth has remained consistently high and is expected to continue at 31% per year over the next five years, according to an RNCOS report on the industry. According to the *2012 Chinese Credit Card Industry Bluebook*, US\$1.2 trillion of purchases were made with credit cards in China in 2011, a year-on-year increase of 48%. This figure represented almost 40% of all purchases of consumer goods. In 2000, the corresponding proportion was less than 10%.

MasterCard projects that annual credit card spending in China will more than double by 2025, and over the next decade, the country is expected to become the largest credit card market in the world by number of issued cards, overtaking the United States. Although the figure is high, it is worth noting that in China, credit cards are still used mostly for large-ticket items, while cash is still the predominant payment method for smaller purchases. Indeed, one study on credit card holders in Shanghai showed that 80% of purchases below 100 RMB (US\$16) are still made with cash.

Despite these optimistic growth projections, China’s cash-centric consumer culture and traditional beliefs about personal finance have meant that consumers are resistant to change, thus slowing the adoption of electronic payment methods. Many of these cultural beliefs stem from Confucian values, which see borrowing as shameful because it means living beyond one’s means, and which state that a good person always saves for the future. Indeed, studies have shown that the majority of Chinese consumers remain uncomfortable about borrowing for daily consumption.

However, recent studies, including one by Fudan and Monash Universities, have also shown that these traditional value systems are changing, and that Western

consumption-driven lifestyles are finding their way into China, especially among the youth. This is demonstrated by the materialization of a new class of *yue guang zu*, those “with no savings at the end of the month.” This group includes young urban students and professionals under 35, largely in first and second tier cities, who have begun to abandon some of the cultural taboos surrounding borrowing money in order to fund their modern, highly consumerist lifestyles, in some cases spending well beyond their means.

Many of these changes in the cultural attitude toward credit have been driven by aggressive marketing by banks issuing credit cards, which offer rewards, discounts and lucky drawings to encourage spending. A number of banks now make it very easy to obtain a card, even for young consumers with no income. Some bank customers have even reported receiving in the mail high-limit credit cards for which they never applied. While most young people remain responsible for fear of losing control of their finances, a small but growing group of *ka nu*, or “card slaves,” has emerged. These *ka nu* usually begin using credit cards for convenience and security or because of the special offers, but end up losing control over their spending, usually to meet a social expectation or to maintain “face” among friends and co-workers.

The needs of the family have always come before those of the individual in traditional Chinese culture. This, in combination with demographics, has exacerbated the trend toward increased reliance on credit. China’s rapidly aging population and the government’s One-child Policy have created a “sandwich generation”: those married with a young child and aging parents who have significant financial responsibilities that lead to higher credit card use. A Jiao Tong University study also examined attitude factors that drive credit card use, concluding that “social power,” the desire to display material wealth, played a significant role in the willingness to take on debt. These findings point to the adoption of Western consumer-centric attitudes and the shedding of traditional reluctance to take on debt among young, urban Chinese.

Paying off Debt

“I have access to credit, but would only use it as a last resort,” said Zhou Lin, a young entrepreneur based in Beijing. In 2007, Zhou opened her first boutique in Beijing’s Haidian District, selling Korean and Japanese apparel to fashion-conscious university students. Since then, she has opened new stores and expanded beyond brick-and-mortar to new sales channels, including a robust e-commerce platform. With a keen aesthetic sense and an ability to hone in on China’s ever-changing fashion trends, she is part of a wave of young Chinese entrepreneurs with their finger on the pulse of China’s consumer demand.

Zhou readily admitted that she had more than one credit card. “I applied for them because of the benefits they provide. This one gives me deals when I travel abroad. The bank that offers this card organizes shopping events in Beijing, and if you use your card, you can get deals.” Almost all of Zhou’s friends had cards as well. She noted that having a credit card in the early 2000s was a status symbol. If you had one, it meant that you or your family had money. In recent years, however, the plastic cards have become commonplace and no longer bestow an air of privilege upon their holders. “I’ll carry them when I travel outside of China for business,” Zhou added. “If something goes wrong and I have to stay for an extra few days to meet with suppliers, I know my credit will cover me.” Despite having multiple credit cards, Zhou rarely, if ever, used them in China. When shopping in Beijing, for example, whether for personal purchases or for business, her cards rarely left her purse. She attributed this behavior to her experiences with credit when she was 19.

When she left Shanghai to attend a university in Beijing, Zhou’s father issued a duplicate of his credit card under her name, for use in an emergency. While a common practice in the West, Zhou’s situation was quite rare in China at the time. She was the only one among her college friends with a credit card.

One day, after a prolonged argument with her father over the phone, Zhou decided to take revenge and used the card to go on a spending spree. She recalled that

when her father received the bill, he was outraged and devastated. He spent the next few months paying off her debt. This taught Zhou an important lesson: Credit is dangerous and its use has serious implications — a belief consistent with traditional Chinese values.

Despite rapid economic growth, the Chinese government has recently been attempting to spur consumer spending, which has remained stubbornly low as a proportion of GDP. Before the global financial crisis, the cliché was, “Chinese save, Americans consume,” with the average saving rate in most Chinese households running at over 40% of annual income. However, as consumption plummeted in Western countries in the wake of the financial crisis, the Chinese government realized the importance of encouraging domestic spending as a way to compensate for diminished demand for its exports, and it has attempted to change the savings culture. In the U.S., the credit card industry helped give rise to the middle class and the culture of consumerism. The Chinese government has begun deregulating the industry in an attempt to achieve the same result.

One significant concern is whether regulatory oversight of Chinese banks is sufficient to prevent a consumer-credit bubble. Asia as a region has seen a number of such events over the last 15 years, and Hong Kong, Taiwan and South Korea have all experienced a credit card crisis driven by excessive household spending, which severely threatened the stability of domestic banks.

Regulators are encouraging Chinese banks to improve their risk management, debt collection and new-product development, and industry insiders have called for the loosening of consumer credit to be backed by a sound risk-management infrastructure, transparency and a continued focus on solid criteria for lending. Even so, important questions remain as to whether Chinese consumers, with very little prior exposure to credit, can safely handle large-scale growth in credit availability.

As China continues to evolve culturally and its financial institutions continue to mature, growth in the availability of consumer credit is only natural. Will a sophisticated ecosystem around personal credit, including the regulatory system and a cultural familiarity with and acceptance of credit, develop as it has in Western societies? Will the typical Chinese credit card customer look more like Liu Jing, on a slippery slope to insolvency, or like Zhou Lin, whose early credit-related mishaps fostered a mature respect for the benefits and risks of credit? The impact of consumer credit will have far-reaching implications for the overall direction of Chinese economic development.

This article was written by William Hart, Thomas Kidd, Lane Rettig and Nicholas Walker, members of the Lauder Class of 2014.



'An Iron Hand in a Velvet Glove': Challenges Facing Chinese Female Managers

Chinese female executives face a variety of management challenges in a traditionally patriarchal society — including discriminatory hiring practices, balancing the different needs of both male and female employees, and managing men who are unaccustomed to female leaders. On the surface, it appears a variety of influences — such as the Communist Party's efforts to promote gender equality, China's rapid modernization and the One-child Policy — have weakened the hold of traditional perceptions that relegated women to a subordinate position in society.

It may appear that Chinese women have an excellent opportunity to climb the corporate ladder. However, in reality, traditional gender roles and biases in China are still very tangible. Practical financial considerations and the changing structure of China's family have encouraged female participation in the workforce, but ultimately have had little effect on eroding restrictive gender roles. In fact, modern trends appear to have expanded Chinese women's obligations both in the workplace and at home. The modern female Chinese manager faces not only the professional difficulty of managing teams in a society traditionally biased against women, but also the need to fulfill familial obligations.

The pressure to make ends meet in a country with soaring inflation and steadily rising costs of living has thrust millions of women into the labor force. Historically, China's economic environment created a context in which women needed to work to keep the family running. This trend has continued to accelerate. The Cultural Revolution paved the way for women to break past traditional family roles so they could labor in the fields among men. Those women did it all — professionals or laborers by day, housekeepers and perhaps mothers by night.

Today, many families rely on two incomes in order to survive. Against the backdrop of an increasing wealth gap in China, women at the bottom of the economic ladder continue the quest to feed their families, and those at the top strive to attain more than their neighbors. One cannot conclude that greater female participation in the workforce and an increasing number of female managers in China are the result of more progressive gender attitudes. Rather, economic necessity has driven these changes and has left aspiring Chinese women facing many of the same challenges.

Communist Gender Equality

In a developing country that faced deep economic problems for many years, everyone who was able to work, worked. Universal employability went hand-in-hand with Mao's notion that everyone was equal as China worked toward a socialist utopia. Women broke through their traditional roles at home to put rice on the table, but this was a necessity in the 20th century as a way to fuel the family's economic engine.

China's One-child Policy was introduced in 1978, when the country's rapidly increasing life expectancy and reduced infant mortality rates indicated a risk of overpopulation. Although the policy is no longer

enforced as strictly, it is still clearly a factor in the reduced birth rates in China. According to China's state-run media outlet, the *People's Daily*, since its enactment more than 30 years ago, the One-child Policy has prevented 400 million births.

This policy has forced a revision of Confucian family values toward parenting. The traditional Chinese gender hierarchy would lead parents to focus more attention and resources on raising sons to the detriment of daughters. In a one-child household, all attention is focused on that one child, regardless of gender. As Elizabeth Schimel, executive vice president and chief digital officer at publishing company Meredith in Beijing, noted, "The One-child Policy has been a great equalizer. ... If you only have one child, family expectations land on [the child], regardless of gender." That said, the Chinese government more recently built in some flexibility for families whose first child is a daughter, suggesting that the preference for a male child is still very strong. Currently, more than 50% of Chinese households are allowed to have a second child if their first is a daughter, according to China's population planning agency.

The One-child Policy has also shaped social expectations for women in the workplace. It affects hiring decisions for employers because they know that most women will have only one child. Indeed, Chinese employers often discriminate against women who plan to have children. While illegal, the practice is hard to control. China's generous paid maternity policies — women have up to 98 days of paid leave in Beijing — contribute to employers' discriminatory hiring. But the expectation that women would have only one child each also changed women's perceptions of their own careers. Alice Au, a senior executive at executive search firm Spencer Stuart in Beijing, said that as a career-minded Chinese woman, "You can have your one child and you're done, so you can basically go on with your life."

It may be tempting to view the One-child Policy as a liberator of women's time, allowing them to focus on their careers. However, even if the Chinese professional female has a successful career, she is still expected to fulfill the traditional domestic roles of wife and mother. "When I come home, my husband expects me to take

care of household duties and raise our son, even if I make more than he does," said As Li Hong, a real estate executive at Vantone group. This is because China has a long history and traditional culture, she noted, which means that these gender roles are not only deeply entrenched, but also are difficult to eradicate.

The many discussions about gender roles in the West signify awareness. But this dialogue is nonexistent across many spheres in China, which suggests there is room for the evolution and development of the conversation. In addition, the lack of gender-equality rules and regulations in the workplace makes it easy for discriminatory practices to take hold.

Clearly more and more ambitious Chinese women are entering the workforce. Because many families have only one child, it is quite common for mothers to outsource daycare to cheap nannies or their own parents (who often live with them), allowing the women to focus more on their careers. Although this may appear to be an empowering factor, many women work because of financial obligations to their households. On a nationwide scale, the Cultural Revolution in the 1960s and 1970s granted women more equal access to employment but did not trump the traditional neo-Confucian gender roles that limit women's status. Chinese female professionals might receive help during the day, but they still have family obligations when they return home. Chinese "soccer dads" have yet to arrive.

Establishing Credibility with Peers and Superiors

In addition to the challenge of balancing family responsibilities with growing professional expectations, Chinese female executives also face a number of gender-related challenges in the workplace, which can take the form of direct discriminatory practices as well as more subtle ones.

In China, the onus is on female managers to establish their credibility and gain respect in the workplace. These managers need "to be seen as objective and all about the business," striking a balance between being "appropriately personal and appropriately respectful of hierarchies," according to Schimel. To compensate for this perception, female executives need to rely

on business acumen and a grasp of their particular market, product or opportunity to “[earn] authority through expertise and command of the business.” Male executives, on the other hand, are given the benefit of the doubt more often and do not need to establish respect with the same sense of urgency; they just “assume they have [the respect and authority],” Schimel noted.

If females do not manage these perceptions and establish their authority quickly, awkward situations can occur. In many cases, male employees in China are quite surprised to have a female manager. For example, when Rachel Kot was introduced to several new teams at Alcatel Lucent, the large French telecommunications equipment firm, numerous employees mistook her for the secretary, despite her senior status.

Thus, women need superior soft skills when leading Chinese teams. Schimel suggested that “women need to be stronger [than men] in the areas of communication and [goal-setting]. Women need to excel. There needs to be no question of authority.” Women also need to have great emotional intelligence while leading teams, and should spend more time “building consensus quietly as opposed to open public forums,” according to Nancy Liu, president of Forevermark, the brand of De Beers Diamond in China. Women tend to build consensus with a bottom-up approach, whereas men utilize a more top-down method. In addition, female executives must learn to read between the lines, especially in Chinese societies, where employees are reluctant to disagree openly with their superiors.

Liu added that female managers “need to learn signals and then leave an open door for [employees] to come and have that discussion with you later on.” She also emphasized the need to help male subordinates maintain “face” by not publicly refuting their ideas or criticizing their work. Successful female executives are also extremely good at leveraging their feminine strengths in the workplace by being soft but firm. Liu likened their management style to an “iron hand in a velvet glove.”

Another clear difference between managing men and women in the Chinese workplace is the employees’ approach toward establishing relationships with their managers. “Chinese females look for female mentors and

want to develop more personal relationships [whereas the men do not],” according to Schimel. She noted that while men are respectful of their female managers, they do not want to get close and maintain a “typical boss and employee relationship,” whereas “for young women, having a woman as a boss really means a lot to them.” Some observers suggest this may be because women are more relationship-oriented and men more task-oriented. As Alcatel Lucent’s Rachel Kot commented about an ongoing gender study involving focus groups in her company, “Women believe having the right mentor will help [them] to accelerate more, whereas men believe having the right business acumen will have more of an effect.”

Female managers in China feel that managing male employees sometimes entails a balancing act between stroking their egos and optimizing business decisions, according to some women. Li noted that she allows her male employees to implement minor decisions she disagrees with from time to time because she knows it will be too damaging to their egos otherwise. On issues of significant consequence, she will insist on the most optimal decision, but, generally speaking, she feels she needs to give male employees more breathing room to feel empowered.

Similarly, Schimel described an experience where she managed a Chinese team that was led by a male manager, and realized she had to make an effort to empower him so he would not feel destabilized. In general, these situations are more delicate in China than in the West. “In Asia, these moments are fraught with a little bit more risk and discomfort, so it is harder to get back on good footing afterwards [if you make a mistake],” Schimel said.

Female managers may have to be extra careful to win the respect of their male employees and manage their egos, but managing female employees presents a different challenge because they are often more timid. As Kot noted, “[Conversations with male employees] are more structured, and [much of the] time [men] expect a lot more respect for what they are saying, which is great, because coaching them will be easier. As long as the bottom line is set, you just let them brainstorm their creativity out. [Yet] when it comes to the women, they

need more encouragement to speak what is on their mind. Men do not have that problem.”

Career Perceptions

Varying perceptions toward their careers create distinct differences between male and female employees and, therefore, different types of management challenges. Generally speaking, Chinese men feel much more pressure to succeed. In a survey released by the Civil Affairs Ministry of China in early 2012, 80% of single women who were interviewed said a man “does not deserve” to have a girlfriend if he makes less than US\$650 a month. Considering the average salary for urban residents in China was only US\$300 in 2010, this bar is not set low. Even if a Chinese man does achieve at least a minimal salary, the pressure for societal advancement is still hard to ignore. Therefore, it is not uncommon for the man to feel sensitive about his career.

“In China, you might see your peers at another firm gaining a title before you or advancing more quickly. This creates a lot of pressure,” said Au. “You may think, ‘My company is not doing right by me, or there must be something wrong with me.’ This is true of men and women, but less so of women.... When I look at my managers, many of the male associates probably get a lot more peer pressure than their female counterparts. That peer pressure in society translates into titles, how they

need to be treated at work in the office. This has resulted in the tendency for males to be continually changing jobs and looking for a better opportunity.” Kristy Sheng, the Asia Pacific business director of Hewlett Packard’s special printings group in Beijing, agreed, adding that “female professionals [in China] are more stable than men.”

However, while men may feel pressure to succeed, women experience much more traditional societal pressures, such as “filial piety, duty to your parents, etc.,” said Liu. These pressures also extend to child rearing: “Fathers receive less judgment for how [their] children perform.” Sheng agreed: “You never see males who say, ‘I want to have a child, so I cannot take the promotion.’”

Female managers in China — still a relatively small number — face acute challenges both at home and in the workplace. Balancing the demands presented by rapid economic growth, a changing social structure and evolving gender attitudes creates significant challenges for both female managers and direct reports. Yet through strong soft skills and a commitment to their expertise, many of these women have established their credibility despite these obstacles.

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The Entrepreneurship Vacuum in Japan: Why It Matters and How to Address It

Empirical research has shown that “opportunity-driven” entrepreneurship is the wellspring of growth in the modern market economy. In Japan, the relative dearth of opportunity-driven entrepreneurship has contributed to the nation’s economic malaise over the past two decades — since the asset price bubble burst in 1991.

Although there are encouraging signs — given the sophistication of Japan’s technological base, the promise of female entrepreneurs, the advent of start-up incubators and the rise of “intra-preneurship” within established companies — entrepreneurship levels today are markedly low relative both to pre-1991 Japan and to current levels in other developed countries. Ironically, during Japan’s two lost decades, foreign-run enterprises, small businesses and entrepreneurs accounted for nearly all job creation. To revitalize its sluggish economy, Japan must create incentives to promote homegrown start-ups and must rapidly commercialize patented, cutting-edge technologies.

Japan is currently facing a myriad of intractable and unprecedented challenges — from a demographic crisis to border conflicts to a strong yen. The population is aging quickly. The energy sector is still reeling from the March 2011 Tohoku earthquake, tsunami and nuclear disaster. The younger generation, having grown up amid deflation and economic stagnation, is loath to take career risks. Students are studying abroad in fewer numbers. Tepid economic growth, combined with massive public sector debt and continued deficits, will likely produce a fiscal crisis in the near future — despite the fact that more than 90% of the debt is held domestically. Gross public debt to GDP now stands at nearly 250%. In spite of government efforts to raise cash by boosting the

consumption tax rate, a financial implosion may come soon if interest rates ratchet up. It appears that Japan is stuck in an economic Catch-22.

The Japan Center for Economic Research projected GDP to flat-line for the next 40 years. But this prediction may be too rosy absent any drastic changes in Japan’s policies. One former advisor to Prime Minister Hashimoto actually hopes that Japan “will confront a meaningful crisis this decade,” so the country will be compelled to alter its policies. With crisis comes opportunity.

GDP growth derives from three factors — an increase in the workforce, invested capital, and the productivity of labor and capital. Given Japan’s shrinking population and overstretched government coffers, economic expansion must arise from productivity gains. New companies have propelled most of the productivity growth and job creation. Kyoji Fukao, of Hitotsubashi University, and Hyeog Ug Kwon, of Nihon University, noted that Japanese companies founded after 1996 contributed a net positive of 1.2 million new jobs, whereas older companies shed a net 3.1 million jobs. In 1989, Japan’s Ministry of International Trade and Industry (now called the Ministry of Economy, Trade and Industry) cautioned that a reduction in entrepreneurship would result in economic slowdown. The warning was prescient.

How Does Japan Compare to Other Advanced Economies?

The World Bank has shown that, among Organisation for Economic Co-operation and Development (OECD) countries, Japan ranks dead last in the average annual entry rate of new enterprises. This rate recently slumped to less than a third of that in the U.S.

Data from the OECD Science, Technology, and Industry Scoreboard reveals that, both in absolute terms and relative to GDP, Japan trails all other OECD countries in the annual amount of venture capital invested.

According to 2008 figures, as a percentage of GDP, the U.S. deployed nearly 20 times more venture capital funding. The Kauffman Foundation found that nearly one out of every eight American adults (11.9%) is currently engaged in “entrepreneurial activity” — among the highest rates for large developed economies. The Global Entrepreneurship Monitor found that 4.9% of U.S. adults between the ages of 18 and 64 are working actively to establish new businesses, compared to only 1.9% in Japan.

Japan has also witnessed a steep decline in the number and volume of IPO filings. According to data from KPMG Japan, the number dropped from 204 in 2000 to 121 in 2007 and to 20 in 2009. In comparison, according to Renaissance Capital, U.S. firms filed 298 IPOs in 2007, 119 in 2009 and 261 in 2011. In addition, the American Chamber of Commerce in Japan has observed that exit opportunities via buyouts, corporate acquisitions or joint ventures remain limited.

A 2009 survey by the Global Entrepreneurship Monitor measured perceptions about entrepreneurship in 20 innovation-based advanced economies. Japanese citizens demonstrated the highest level of fear of failure, while Americans were in the quintile displaying the lowest level. Moreover, Japan, followed by South Korea, had the fewest citizens who saw opportunities in entrepreneurship. The U.S. was close to the median. Japan also ranked last in the proportion of people interested in entrepreneurship as a career. One entrepreneur stated that the ecosystem in support of entrepreneurship in Japan is “less than 1% of that in Silicon Valley.”

Japan’s dearth of entrepreneurs is not for lack of technological sophistication. The country’s R&D spending rate surpasses that of all other OECD countries, running on average around 3% of GDP. Research conducted by Robert Eberhard and Michael Gucwa, of the Stanford Program on Regions of Innovation and Entrepreneurship, demonstrated that Japan has a considerable patent advantage in Asia, particularly in renewable energies. Given the March 2011 nuclear accident, the impetus to find renewable, eco-friendly sources of power has become even more urgent, and there will likely be more Japanese patents in this area. This vast storehouse of patents could serve as the foundation for dozens of enterprises in the new economy. Thus far, however, Japan’s patent base is considerably underutilized and has not translated into many start-ups or commercial products.

Why Is Japan Lagging in Entrepreneurship?

Japan-based venture capitalists, entrepreneurs, CEOs of SMEs, academics, financiers and former government officials have largely attributed Japan’s entrepreneurship gap to cultural, societal, educational, legal and financial factors. There is also a failure of political will.

CULTURAL FACTORS: The impact of culture cannot be underestimated, as it directly informs behavioral norms. Tomoko Inaba, a former AIG Director and current entrepreneur in Japan, commented that, in general, the Japanese culture is “not one that encourages risk-taking behaviors or the pursuit of unexploited opportunities.” It tends to be more cognizant of rules, tradition and customs, and it encourages highly conscientious and detail-oriented behaviors. It emphasizes conventionality, consistency, community and relative risk aversion. In contrast, the American culture tends to embrace individualistic and nonconforming behavior. It tends to foster debate, forgive failure and cultivate the development of open-mindedness and creativity. The Kauffman Report argued that the culture of the U.S. is the strongest force driving entrepreneurship there. In Japan, on the other hand, the fear of failure and resulting social alienation pose a huge psychological barrier for would-be entrepreneurs.

SOCIETAL FACTORS: Toshiko Oka, the CEO and founder of Abeam M&A Consulting Ltd., noted that the status of entrepreneurs in Japan is not high, particularly relative to their counterparts in the U.S. Inaba agreed, commenting that society's perception of entrepreneurs is neutral at best. She added that the "typical Japanese parent often does not support his or her child's aspiration of becoming an entrepreneur." These parents tend to want their children to go to an elite public university and join the bureaucracy or a major conglomerate (*keiretsu*), such as Mitsubishi or Mitsui. A well-known publicly traded firm, such as Toyota or Hitachi, also suffices. Due to historical patterns of lifetime employment (*shushin koyo*), the vast majority of parents still believe these paths present the most stable careers, the highest cumulative pay and the most prestige.

Because of the social pressure on men to support the household, married women can be better situated to become entrepreneurs. Men tend to wait until after age 30 to consider entrepreneurship.

Many successful entrepreneurs in Japan have spent time studying abroad. Kosuke Mori is representative of such entrepreneurs. He graduated from Tokyo University in 2000 and joined Mizuho Financial's leveraged finance unit. In 2004 he moved to California to attend graduate school at Stanford University. After graduation he launched his first company, a financial data aggregator targeting U.S.-based hedge funds. He stated that his education in the U.S. and the connections he formed within the venture capital community gave him the confidence to incorporate his company. He noted that, had he stayed in Japan, he would not have pursued his dream of entrepreneurship. He now runs a company that provides real-time consumer survey data via a smartphone-based app.

When he graduated from Stanford, Mori said he felt that Japanese society was cautiously optimistic. Now the society has become deeply pessimistic and conservative. Neither students nor businesspeople take risks and "the younger generation has become less ambitious." In the 1970s and 1980s, Japan, Inc. aimed to catch or even surpass the U.S. But today that goal seems far-fetched, according to experts. The younger generations are uncertain about economic growth and have come to

question the relentless work ethic of the older generations. There is a clear ambition gap. Such a climate, these experts add, does not bode well for entrepreneurship.

EDUCATIONAL FACTORS: Educational institutions in Japan certainly ought to shoulder more of the onus in presenting entrepreneurship as a viable option to their students. Mori commented that "virtually none" of the students in his graduating class from Tokyo University, the preeminent university in Japan, pursued entrepreneurship right after graduation. He felt that five years later, "no more than 1% of the students were engaged in entrepreneurship." And today, more than 12 years after graduation, he still "does not know anyone in his class who has similarly started a company." The brightest students flock to careers at the largest companies (e.g., Mitsubishi, Mitsui, Nomura, Mizuho and Toyota), foreign-owned companies (e.g., Goldman Sachs, Procter & Gamble, BCG and McKinsey), distinguished law firms (e.g., Morrison & Foerster) and government agencies (e.g., METI).

Robert Laing, co-founder of Gengo, a translation company in Japan, noted that entrepreneurship "needed to start with the universities." Like parents, universities are too risk-averse and do not "prepare students for business and encourage [them] to go into entrepreneurship." He observed that successful entrepreneurs in Japan have studied abroad, are proficient in English and have connections to the U.S. He emphasized that the last two factors are nearly indispensable. The educational system should do more to promote exchange programs abroad and mastery of English.

LEGAL FACTORS: Certain Japanese legal frameworks must also be adjusted. William Saito — a renowned entrepreneur, venture capitalist, professor and public policy consultant — declared that the very first thing that needs to be addressed to promote domestic entrepreneurship is to "change bankruptcy laws." If start-ups receive debt financing (and occasionally even equity financing), the assets of both the company and the individual are collateralized. The legal restriction on "piercing the corporate veil" is not clear-cut in Japan and is not strictly enforced. Furthermore, debt is transferrable. In other words, if the start-up fails, the founder's guarantor or family then assumes

responsibility for the unpaid debt. Even if the founder dies, the family is still liable for the debt. Saito argued that the law of limited liability is not nearly as clearly delineated as in the U.S. This burden of shared risk inordinately skews the risk-reward structure for entrepreneurs in Japan. In Saito's opinion, it is one of the primary factors blocking would-be entrepreneurs there.

FINANCIAL FACTORS: The final component is the financial aspect. By far, the most challenging task for start-ups is raising capital. Capitalization of start-ups in Japan is a huge problem. There is a fairly even distribution of wealth, and the average income hovers around US\$45,000 per year. As such, entrepreneurs are largely unable or unwilling to turn to their family or friends for financial assistance. It is even difficult for them to secure a financial guarantor. The angel investor community in Japan is quite limited. Saito knew only a handful of active and engaged angels. The first generation of successful entrepreneurs is mostly unwilling to support the second generation partly because the older generation is comprised of "one-hit wonders" who are fairly conservative with their investments, preferring Japanese government debt securities or U.S. public equities.

Banks are unwilling to lend to entrepreneurs, and even if they did, their onerous lending rules would impose harsh conditions on start-ups. In particular, the banks would demand to collateralize all of the assets. Large trading corporations, such as Mitsubishi, Mitsui and Sumitomo, or large companies, such as DoCoMo, do make strategic acquisitions of established young companies. Foreign-based venture capital firms have almost no presence in Japan, with the exception of DCM Capital and a smattering of other firms.

U.S.-based venture capitalists are generally disengaged from Japan and see the Japanese market as too small. They are willing to interact only with Japanese start-ups whose founders speak English proficiently or are interested in expanding their services outside the limited Japanese market. (Japanese refer to companies' inability to expand outside the archipelago as the "Galapagos Syndrome.")

That leaves the domestic venture capital firms. The

structure, nature and composition of this sector in Japan act as a serious deterrent to the emergence of a vibrant start-up culture. In some ways, a vicious cycle is at work. There is a low level of venture capital funding in Japan, given that there are relatively few opportunities to chase. But, because minimal venture capital funding is available, would-be entrepreneurs are unwilling to launch, knowing they will have difficulty securing capital. Many start-ups that do launch are unable to "make it" due to lack of funding, leading to fewer viable early-stage companies in which to invest.

Saito called the Japanese domestic venture capital community "conservative, cowardly and unprofessional." Local venture capital firms are administered primarily by "salary men" who have no operational experience running start-ups. They tend to make decisions that are as risk-averse as possible, which is difficult to do in the venture capital business given its inherent riskiness.

Promising Signs Ahead

There have been several notable successes in Japan, such as Rakuten, Gree and DeNA. A few promising start-ups are also emerging within the renewable energy and tech sectors. And there are increasing numbers of female entrepreneurs, despite the "titanium ceiling" confronting them in the Japanese business world. Saito noted that he sees more passion for entrepreneurial endeavors among his female students.

A number of incubators are operating successfully in Kyoto and Tokyo. Examples include Impact Japan (the organizers of Japan Startup Weekend), Open Network Lab (an incubator modeled on U.S.-based Y Combinator), EGG Japan, Souzei Village and Saito's MOV Lounge in Shibuya.

Would-be entrepreneurs have ample flexibility to innovate within established large enterprises. A comprehensive study of this "intra-preneurship" activity in Japan is necessary to understand the benefits and costs of such a model.

Concerted promotion of opportunity-driven entrepreneurship can help lift Japan out of economic gloom. Women, in particular, hold significant promise. Japanese policymakers, school administrators and

the media need to showcase the advantages of entrepreneurship and put in place incentives that reduce the risk calculation for would-be entrepreneurs. Furthermore, they need to encourage universities to give students the confidence and skills necessary to start new businesses. Veteran entrepreneurs should discuss their failures and successes openly with the younger generations and should support promising young entrepreneurs with capital commitments. Japan can also look to the Israeli model, which generated a

robust venture capital and entrepreneurship sector by encouraging FDI; promoting immigration; reallocating government spending; building private-sector incubators; aligning research institutions, the military and entrepreneurs; and highlighting entrepreneurship in schools across the country.

This article was written by Andrew R. Karlin, member of the Lauder Class of 2014.



Dating in a Digital World: Trends in 21st Century China

Wandering into the main gate of People's Park, a large public gathering space in the heart of Shanghai, one might think he or she has stumbled upon a bustling flea market. Rows of colorful stalls line the walkways, which are crowded with old couples elbowing each other to examine the thousands of offerings.

But the “goods” being hawked by the seasoned ladies behind the stalls are not scarves or souvenirs, but rather singles. Welcome to the People's Park “marriage market,” where thousands of adults — mostly aging parents — come daily to scan the sea of personal ads, meet with matchmakers and chat up other parents eager to find a partner for their overworked, unwed children.

These marriage markets are a logical extension of the traditional Chinese matchmaking culture, where family elders drive the screening for, and selection of, their child's future mate. At the same time, however, there is an entirely different market in operation, one where millions of exchanges happen daily, and the “shoppers” are the singles themselves. This is the world of Chinese online dating, a nascent industry that has taken off and is expected to break two billion RMB (US\$318 million) in total annual revenue by 2014, according to a recent report by Analysys International.

What is interesting about this industry is not only its rapid growth in a conservative society that frowns upon courting more than one person at a time, but also its potential to change the social norms that are part of dating both online and offline. That is not to say that online dating has changed the values and criteria of Chinese singles completely. On the contrary, the primary players in this space — Jiayuan, Zhenai and Baihe — advertise themselves explicitly as marriage websites focused on helping singles find their future life partner.

While the mean age of marriage is rising, marriage is still nearly universal among the Chinese. More than 99% of women between the ages of 35 and 39 in mainland China have been married at least once, according to a study by Gavin W. Jones at the Asia Research Institute.

The traditional emphasis on finding a partner with a similar educational pedigree and economic standing is still followed in the digital world. According to Shang-Hsiu Koo, CFO of Jiayuan, China's largest online matchmaking website, what users value most in a potential match are education level, age, height and residency (in China, having a residency permit, *hukou*, in a top-tier city is highly desirable because only those with permits have access to public services and certain employment opportunities in that city). In addition, for men today to be taken seriously, they must own a car and hold a deed to an apartment. (A generation ago, a washing machine and refrigerator would have sufficed.) All these personal facts can also be found on the profiles hanging in the People's Park marriage market. So why have so many singles gone online?

According to the United Nations, 2011 marked the first year ever that the number of people living in Chinese cities exceeded the number living in the countryside. As the Chinese government gradually relaxed its control over urban migration — by loosening the restrictions of the 1958 Hukou System, which afforded social benefits only to those who could prove identification from the

local province — more and more individuals have taken advantage of new economic opportunities by migrating to cities. This trend will continue, as the urbanization rate is expected to surpass 60% by 2020 and 75% by 2045 (currently more than 82% of the U.S. population lives in cities).

While a great deal of research has explored the economic, political and environmental issues that will be affected by increasing urbanization, far less has examined how this trend has impacted China from a social standpoint. In particular, urbanization in China has uprooted the traditional community-based networks through which people meet their spouses and has thus made it more difficult for Chinese adults to find mates.

“More so than ever, Chinese people are leaving their hometowns for educational or professional opportunities in cities like Beijing, and in doing so are forced to recreate their social network from scratch,” says Koo. While urbanization opens up economic opportunities for these individuals, it simultaneously closes social outlets, making online dating networks increasingly important in the search for a potential partner.

Impact of the One-child Policy

Moving to a new city and restarting one’s social life might be considered commonplace in many countries. However, it is intensified by additional characteristics of the Chinese experience. In particular, the long-term implications of China’s One-child Policy have not only made it more difficult for the growing number of urbanized individuals to find a spouse, but have also raised the stakes for them to do so.

The One-child Policy was one in a series of population-control measures advocated by the People’s Republic during its first three decades. Early in his tenure, Mao Zedong promoted population growth during the 1950s and 1960s as an “adequate solution ... in production,” according to Princeton University’s professor Gregory Chow. China’s population responded, so much so that in the 1970s the government implemented the two-child family plan in order to guard against overpopulation. Because this policy did not have the desired result, in 1979 the government enacted the One-child Policy,

which restricted parents to one child, in some cases offering incentives to ensure compliance.

China quickly felt the impact of this series of population-control measures. The decade-long, relatively steady fertility rate in the 1960s of about 5.7 births per woman declined on average 6.4% per year from 1970 to 1981, according to the World Bank. By 1981, the fertility rate fell to 2.6 births per woman. With fewer children to raise, parents’ resources and attention were now concentrated on children of the One-child Policy generation.

With this increased attention, children face greater pressure from parents to be successful in both school and the job market. This means more time studying and less time building social networks, as Vanessa L. Fong documented in her book, *Only Hope: Coming of Age Under China’s One-Child Policy*. In addition, with no siblings at home, these offspring also are growing up with far fewer opportunities to socialize. Such factors make online dating more attractive to this generation by providing them with instant access to an extensive network of singles and a low-pressure environment in which to approach potential partners.

Rising Pressure for Both Sexes

As a result of the One-child Policy, many families began to selectively abort female children in order to try to have boys, who are traditionally preferred due to the cultural expectation that men will help support the family and take care of their parents in old age. In *Crisis and Reform in China*, E. Bliney estimated that more than 1.5 million sex-selective abortions were carried out in China between 1983 and 1990.

Both men and women are under growing pressure to find a partner in an increasingly difficult environment. As of the 2005 census, there was a staggering gender gap of approximately 32 million more males than females under age 20.

Because of this gender gap, the first level of pressure comes from the fact that there are simply not enough women available for all of the men. With a birth rate of 120 men for every 100 women, rural, lower-income men are most affected. General demographic forecasts suggest that within the next decade, about 15% to 20% of

Chinese men will not be able to find brides.

A second level of pressure comes from the heavy social expectation of not only finding a spouse, but also finding what society deems the *right* spouse. This is measured increasingly by material factors: An astonishing 68.3% of women in developed cities will not marry a man until he owns a home, according to Christina Larson's recent *Foreign Policy* article.

But this does not necessarily mean it is easy for women to find a spouse. Women traditionally were second to their brothers, but now "enjoy unprecedented parental support because they do not have to compete with brothers for parental investment," said Amherst College's Melissa Fong. They, too, are now increasingly faced with the filial-piety-inspired pressure to support their parents.

This increased financial pressure has led an ever-growing number of women to urbanize and compete for the most prestigious jobs with the six million students who will graduate every year. In addition, women are overtaking men more often for top spots at universities and graduate schools, extending the time they spend in the education system. Today, 27% of urban Chinese women in their late twenties have not been married, compared to only 7% in 1982, according to Larson.

A survey conducted by the All-China Women's Federation found that 90% of men thought women should be married by age 27. There is even a popular, highly stigmatized term for women over 27 who are not yet married — *sheng nu*, or "leftover ladies."

The Role of Technology

Society's pressure to find the right person to marry before one gets too old stands in stark contrast to the mounting pressure to succeed educationally and professionally. The online dating industry has emerged at an opportune time to provide these overburdened professionals with a common platform to connect with others like them and to search more efficiently and more effectively for their perfect match.

On a par with such a strong demand for a platform that could help the Chinese population find spouses, technological advancements have fueled the growth of

the country's online dating market. Among numerous websites are Zhenai and Jiayuan, two of China's most successful. Zhenai, a subscription-based dating service that gives users access to more than 1,000 matchmakers, has nearly 30 million users. In comparison, Match.com, one of the largest online dating websites in the U.S., has 15 million users. Despite the impressive size of its user base, Zhenai is maintaining a 40% annual growth rate. Last September, IAC, Match.com's major shareholder, bought a 20% stake in the seven-year-old company.

Jiayuan's growth is even more staggering. Established in 2003, it acquired 63 million subscribers by 2012. Users can create a free profile on the site but pay to connect with other users to receive their messages. In addition, the company provides a host of add-on services, including online chatting and sending virtual gifts. Earning more than 44% of the Chinese online dating sector's revenue, the NASDAQ-listed Jiayuan is the only one to have gone public.

One of the main benefits of the online dating platform, according to Jiayuan's Koo, is that it allows users to quickly screen and filter for the candidates they are most interested in. Each fills out a detailed self-assessment — which seems more like a background check than an online dating profile — where they are asked to provide information on their height, weight, monthly income, education level, marital history and whether or not they own a home. All these data are used as key screening criteria by other users. This is in stark contrast to Match.com, whose main page dedicates a large portion of its real estate to each user's story, interests and personality. But given the Chinese values involved in finding a comparable partner, the Jiayuan model gives singles more choices and allows them to quickly identify appropriate candidates while saving them a great deal of time and heartbreak.

Despite their impressive growth and aforementioned unique attributes, the major Chinese online dating services, such as Jiayuan, face two major business challenges.

First, the online dating service industry in China is fragmented. As Rose Gong, CEO of Jiayuan, remarked in the 2011 4Q earning call, "We continue to see

fragmentation in China's online dating market as new entrants attempt to take advantage of the tremendous market opportunities." With a relatively low barrier of entry for entrepreneurs, as well as aggressive investment in mobile dating applications by established companies such as Sina, Jiayuan is investing heavily to both attract and monetize China's mobile users.

The second challenge is building trust with users. On a par with the rapid growth in the number of users, the number of cases of fraud has also increased within online dating websites. For example, in July 2011, a female user sued Jiayuan after she was swindled by a man she had met on the website. Many other forms of fraud — from publishing fake salary information to prostitution — have diminished the credibility of online dating websites, leading Jiayuan to fight back by, for example, blacklisting users or requiring validation from an employer's human resources department if a user tries to increase his salary dramatically.

The Future of Marriage in China

Over the past decade, China has seen an explosive growth in the number of people using online matchmaking services. Despite such dramatic changes

in the methods that singles use to find spouses, their selection criteria have changed little: They still heavily value a person's education level, height and salary more than attributes such as personality and interests. Accordingly, major online matchmaking companies such as Jiayuan and Zhenai have been tailoring their products to meet the unique demands of Chinese users.

In addition, China's One-child Policy, rapid urbanization, and the widening gender imbalance have all played major roles in increasing the online-matchmaking market size. As urbanization continues to increase and fertility rates remain low, online matchmaking platforms will continue to grow.

Finally, the online dating industry is starting to change the social norms involved in courtship and dating in mainland China. As single men and women have more freedom and choice about where and how they find love, their behaviors will have a significant impact on the shape and dynamics of romantic relationships for generations to come.

This article was written by Ying Wang, Sanghoon Kwak and Jake Whalen, members of the Lauder Class of 2014.



'Needs Improvement': Despite Progress, India's Primary Education System Has a Ways to Go

A strong education system is the cornerstone of any country's growth and prosperity. Over the last decade, India has made great strides in strengthening its primary education system. The District Information System for Education (DISE) reported in 2012 that 95% of India's rural populations are within one kilometer of primary schools. The 2011 Annual Status of Education Report (ASER), which tracks trends in rural education, indicated that enrollment rates among primary-school-aged children were about 93%, with little difference by gender.

However, behind the veil of such promising statistics, the learning outcomes of India's children show little progress. The country ranked 63 out of 64 in the latest Program for International Student Assessment (PISA) study, with some of its best schools ranked about average among those surveyed. The 2011 ASER stated that only 48.2% of students in the fifth grade can read at the second grade level. The number of students completing their primary education with inadequate numeracy and literacy skills is startling. To see this manifest in an economic sense, one may attribute India's productivity growth — lagging behind that of East Asian economies — to a lack of progress in the foundational elements of countrywide, high-quality education.

India's private-schooled, English-speaking urban elite may attract global attention, but they are in the minority. The vast majority of Indian children attend government-run primary schools in rural areas. In 2008-2009, rural India accounted for more than 88% of India's primary-school students, of whom over 87% were enrolled in government-run schools. This is where we see some of the nation's toughest challenges.

A Diverse Set of Problems

India's education system has not achieved strong learning outcomes for reasons that are as diverse and nuanced as the country itself. Key among these reasons is poor teaching quality, which results from a multitude of factors.

INADEQUATE TEACHER QUALIFICATION AND SUPPORT: Teachers working in primary schools across rural India have a difficult job. Dhir Jhingran, a senior civil servant in the Indian Administrative Service, with more than two decades of experience in rural primary education, explained the multiple challenges they face: "Teachers have to teach multiple grades, textbooks are pitched far above the comprehension level of students, and each classroom has children with different levels of learning achievements." Anurag Behar, CEO of the Azim Premji Foundation, an education non-profit, noted that "the average school teacher in India does not get adequate pre-service or in-service education, nor does she get the support to overcome these problems." Compounding this is the relatively low educational qualification of many teachers themselves. In 2008-2009,

on average, 45% of these teachers had not studied beyond the 12th grade.

LOW TEACHER MOTIVATION AND HIGH ABSENTEEISM: A key factor affecting the quality of primary education appears to be low levels of teacher motivation. In 2002-2003, 25% of primary-school teachers in rural India were absent on any given day. The impact of absenteeism is exacerbated by the fact that the average primary school in India has a workforce of no more than three teachers. At a school for girls in rural Rajasthan, we observed this problem first hand: Of the eight teachers assigned, only five were present. The three who were actually teaching were juggling eight different grades.

The obvious reason — remuneration — does not appear to be a driver. In fact, both education experts and ordinary citizens argue that government-employed school teachers are paid relatively well. UNESCO surveys from as early as 2004 indicated that the annual statutory salary of primary school teachers in India with 15 years' experience was more than \$14,000, adjusted for purchasing power. This was significantly higher than the then-statutory salaries of US\$3,000 in China and Indonesia, and the Indian GDP per capita in 2004, which was US\$3,100.

Indian primary-school teachers may not be underpaid, but some argue that they may be overworked. For Vivekanand Upadhyay, a seasoned educator and language professor at a leading national university, one reason for the lack of motivation is that “primary school teachers employed by the government, particularly in rural India, are required to perform a wide range of duties completely unrelated to imparting education.” These duties — including administering government programs such as immunization clinics, assisting with data-collection for the national census, and staffing polling stations during elections — in addition to their teaching responsibilities, place significant demands on teachers' time.

Another disheartening factor has been a highly bureaucratic administrative system that discourages bold decision making and makes implementation difficult. For example, as Jhingran observed, “it is difficult to test new practices on a small scale before rolling them out:

If a new program has been developed, the philosophy is that every school must have it.” Such indiscriminate application often means that teachers are implementing programs without understanding their key principles and ultimate goals.

FLAWED TEACHING METHODOLOGY: In India, rote learning has been institutionalized as a teaching methodology. “Primary school teachers in rural India often try to educate students by making them repeat sections of text over and over again,” said Jhingran. Often they do not explain the meaning of the text, which results in stunted reading comprehension skills over the course of the children's education. For example, many students in grades two and three in one particular school struggle to read individual words, but can neatly copy entire paragraphs from their textbooks into their notebooks as though they were drawing pictures.

LINGUISTIC DIVERSITY: Finally, India's linguistic diversity creates unique challenges for the nation's education system. The country's 22 official languages and hundreds of spoken dialects often differ considerably from the official language of the state or region. Jhingran commented that “the teacher not only has to account for varying learning abilities within the classroom, but also dialectic nuances which affect students' comprehension of the subject matter.”

Government-school-educated children from rural India struggle to speak even basic sentences in English. “Students with rural primary schooling are at a significant disadvantage as they transition to higher education, because India's best universities teach exclusively in English,” said Upadhyay. Part of the problem is that there is no one to teach them. As Chandrakanta Khatwar, an experienced middle school teacher in a rural government-run school in Rajasthan, asked: “When teachers themselves know little English, especially spoken English, how will students learn?”

A Parallel, Non-governmental Education Universe

Since the late 1980s, government efforts to augment rural primary education have been supplemented by the emergence of an intervention-based non-governmental system that spans multiple institutional types.

While private schools have emerged as a parallel system over the last two decades, their impact is limited because they serve less than 13% of India's rural primary-school children. However, do private schools really make a difference? Some studies have found a small, but statistically significant, "private school advantage" in rural India.

Behar was skeptical about the superiority of private rural schools over their government-run counterparts, noting, "Once we control for a child's socioeconomic background, private schools add little-to-no value. In many ways, private schools are in much worse shape." However, according to Khatwar, "more and more parents in small towns are choosing to send their children to private schools if they can afford it" — perhaps with good reason, because, on average, the number of students in each classroom in private schools is often smaller and school heads exert greater control over teachers.

Some organizations are attempting to innovate with new formats and systems of education. Avasara Academy, a new school for girls, is a private institution whose mission is to mold leaders from among the best and brightest girls in India, regardless of their background. While admission is merit-based, the school intends to draw half its students from disadvantaged rural and urban backgrounds, awarding them full scholarships. In addition, it is developing a special curriculum that encourages excellence beyond academics. "Avasara seeks to identify high potential young women and guide them along a powerful journey of leadership development. We expect that our graduates will form a network of leaders who will collaborate to drive positive change across the country," explained Mangala Nanda, humanities department chair for Avasara. While still in the early stages of its development, Avasara's successful implementation would provide a viable model for high-quality, accessible education and integration across socioeconomic boundaries.

Governmental Efforts

The Indian government at every level recognizes the need for educational reform and has made a conscientious effort to achieve it.

The midday-meal plan, for example, is a highly publicized nationwide program through which government school children across India are provided with a midday meal every day of the school week. The program is largely considered a success. A study in 2011 by Rajshri Jayaraman and Dora Simroth found that grade one enrollment increased by 20.8% simply if a midday meal was offered.

According to Behar, "The Indian government has worked very hard to provide rural schools with adequate infrastructure, something that was critically lacking a few decades ago." For instance, DISE reported in 2012 that more than 91% of primary schools have drinking-water facilities and 86% of schools built in the last 10 years have a school building. However, there is still a long way to go: Only 52% of primary schools have a girls' toilet, and just 32% are connected to the electricity grid.

In 2012, the Central Government enacted the Right to Education (RTE) Act, under which every child between the ages of six and 14 receives a free and compulsory education. In addition to regulating access to education, the act contains certain provisions that could positively impact the quality of education. According to Jhingran, one of its major achievements has been "the dramatic reduction of non-teaching duties assigned to government school teachers, freeing up valuable time and lowering absenteeism."

Partnering with the Government

Over the past few decades, many organizations have begun working with government schools and teachers to improve learning outcomes.

Pratham, a joint venture between UNICEF and the Municipal Corporation of Mumbai, runs multiple programs to supplement school education, such as learning support classes, libraries and additional learning resources. A hallmark of these initiatives is that Pratham engages volunteers from local communities and trains them to run these programs. Another important initiative that has resulted from Pratham is the annual ASER, an assessment that measures reading and arithmetic abilities by surveying more than 600,000 children across 16,000 villages in India. This remarkable

exercise in data-gathering constitutes the foundation for informed decision-making and benchmarking.

Other initiatives address teaching quality by placing specially trained teachers in government schools. Teach for India, modeled after the Teach for America program, was introduced in 2006. Young, motivated Indian college graduates and professionals apply for two-year fellowships to teach at government-run and low-income private schools that lack sufficient resources. An important distinction of Teach for India is that instruction is, by design, always in English. As Mohit Arora, fellowship recruitment manager for Teach for India, noted, the organization's philosophy on this point is that "learning English is essential to future success, as English in today's world is more than just a language. It is a skill set." Students who do not speak English may have some difficulty initially, but the organization has made learning at these schools experiential and therefore engaging. The dynamics of one particular grade 3 Teach for India classroom were in stark contrast to other classrooms at the same school — students were listening intently, contributing in class, answering questions beyond the textbook and demonstrating a strong command over English. The challenge is scaling this model to rural India.

Still other organizations focus on capacity development of teachers in government schools, such as the Azim Premji Foundation. As CEO, Behar is categorical in his view that the foundation "works in partnership with the government," and that it "does not believe in supplanting the government school system." The foundation has established scores of institutes at the district level that provide in-service education and also empower teachers to learn from each other. For example, Behar described a voluntary teacher forum in a district of Rajasthan, initially organized by the Azim Premji Foundation, but now being run increasingly independently by teachers in the district.

The Future of Primary Education in India

Education in India has improved dramatically over the last three decades. Schools are accessible to most children,

both student enrollment and attendance are at their highest levels, and teachers are adequately remunerated. The RTE Act guarantees a quality education to a wider range of students than ever before. However, challenges in implementing and monitoring high standards in teaching and learning outcomes across regional, cultural and socioeconomic subsets prevent India from fully achieving this goal. In addition, teacher support and scalability of high-performing teaching professionals in disparate areas, funding allocation for schools in remote districts and limited use of technology in the classroom remain barriers to reforming primary education.

India's growth story remains one of the most anticipated global economic trends, and its fulfillment relies on a well-educated and skilled workforce. Improving education is a critical area of investment and focus if the country wants to sustain economic growth and harness its young workforce. A weak foundation in primary education can derail the lives, careers and productivity of tens of millions of its citizens. Already, a significant proportion of the adult workforce in India is severely under-equipped to perform skilled and semi-skilled jobs. As Rajesh Sawhney, former president of Reliance Entertainment and founder of GSF Superangels, noted, "No one is unemployed in India; there are just a lot of people who are unemployable."

Furthermore, in order to develop India as a consumer market of global standards, it is imperative that all of its children reap the full benefits of a high-quality education. Otherwise, large segments of the population in rural India will continue to have low purchasing power, find themselves in highly leveraged scenarios and, more often than not, continue to make a living through agricultural means. While some of this can be attributed to deficiencies in secondary and tertiary education, the root of these issues lies in low-quality primary education.

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Apple's Foray into China — and the Mind of the New Chinese Consumer

“For China, the sky’s the limit ...,” Apple CEO Tim Cook noted last year. “I’ve never seen so many people rise into the middle class who aspire to buy Apple products. It’s quickly become number two on our list of top revenue countries.”

Much has been written about the successes of foreign brands in China (e.g., KFC, GM, Starbucks, McDonald’s and Microsoft) as well as the failures (e.g., Yahoo, MySpace and eBay). But Apple’s success is unusual. Prior to 2008, the company had been quietly selling products in mainland China for more than a decade via its network of domestic specialty retailers. Compared to its business model in the U.S., where Apple’s company-owned stores are the centerpiece of its offline sales strategy, Apple effectively leveraged its network of third-party retailers to sell its products to Chinese consumers well before any Apple stores were opened there.

Although no one knows the exact number, analysts estimate that Apple’s network of authorized offline specialty retailers in China exceeds 2,000. These sites look and feel like traditional Apple stores but are clearly marked as “authorized resellers” and boast names such as “iSpace.” At the same time, the numerous unauthorized or illegitimate retailers throughout China can be difficult to distinguish from their authorized or legitimate counterparts. These unauthorized stores — which often sell authentic Apple products sourced domestically or abroad via opaque channels — copy the look and feel of real Apple outlets, including employee uniforms, outer glass walls and wooden display tables.

By mid-2008, according to research firm InStat, between 400,000 and 1,000,000 iPhones were in use in China. Sensing the potentially explosive market demand for

iPhones there and recognizing the arbitrage opportunity, people used a variety of methods to purchase these Apple products in Hong Kong and the U.S. — where prices are roughly 30% cheaper than in mainland China — and smuggled them into China via unofficial gray channels. These devices were then often sold for a profit on websites such as Taobao, the eBay of China.

Prices of the newest iPhones can approach 200% of the price of mobile-carrier-subsidized iPhones in the U.S., due to the seemingly insatiable market demand and delayed Apple product releases in China relative to other markets. While these gray-market activities continue, the opening of multiple mainland China Apple stores, along with mobile contracts to purchase iPhones at a discount in the U.S., have helped to combat this problem.

Apple Stores Go to China

In July 2008, just prior to the start of the Olympics, the first Apple store in China opened to great fanfare in Beijing’s Sanlitun Village. This was Apple’s 219th store globally. By the end of 2009, mainland China still remained a blip on Apple’s revenue radar. But over the next three years, the growth of Apple’s popularity and business in China soared as the company opened additional stores in Beijing and Shanghai. During the opening of the 16,000-square-foot store in Shanghai in 2010, Ron Johnson, then-senior vice president of retail operations, estimated that Apple would open

25 additional stores in mainland China over the next two years. By mid-2012, there were only six stores. The reasoning behind the slower-than-expected pace remains unclear, but most analysts attribute this delay to site-acquisition and general logistical challenges.

Nevertheless, the limited number of Apple stores in China has not hindered the company's success there. According to *Fortune* magazine, Apple generates an average of US\$4,032 in revenue per square foot per year in its stores globally, a number that would make any retailer jealous. In comparison, luxury jeweler Tiffany and consumer-electronics giant Best Buy generate US\$2,666 and US\$930 in revenue per square foot per year, respectively, in their company-owned stores. Apple's mainland China stores are said to be among the company's highest-trafficked and most profitable stores globally.

Apple's China Numbers

According to Alvin Tse, product director at Flipboard China, a popular iOS application developer, there were 20 million to 30 million iPhone activations in mainland China at the end of 2011. He estimated that there will likely be a similar number of additional activations in 2012. These numbers include devices purchased both within and outside China.

According to Apple's second quarter 2012 analyst earnings call, the company generated US\$7.9 billion in revenue in China, up 300% compared to the same period in 2011. iPhone sales were up 500% from a year earlier. China accounted for 20% of Apple's total second-quarter revenue, up from 2% during the same period in 2009, despite just six Greater China retail stores. To put this in context, Reuters noted that Pennsylvania has eight Apple stores amid a population of nearly 13 million. Given there is currently only one Apple store for every 216 million people in China, it is no surprise that Apple's Cook sees China as a massive future-growth opportunity for the company in China.

On the third quarter 2012 earnings call, Cook stated that Apple's revenue in China was US\$5.7 billion for the quarter, an increase of 48% compared to the same period the year before. Through three quarters in 2012, the company's revenues in China totaled US\$12.4 billion, compared to US\$13.3 billion for all of 2011. Apple's

successful launches of the iPhone 4S and the New iPad — coupled with the recent addition of China Telecom and the potential near-term addition of China Mobile (and its more than 600 million mobile subscribers) to its list of domestic Chinese mobile-carrier partners — are clear indications that the company shows no signs of slowing down in China.

In comparison, KFC and Starbucks are often highlighted as examples of successful foreign companies in China. According to KFC parent company YUM! Brands' 2011 annual report, at the end of 2011, KFC had more than 3,700 restaurants in over 700 cities across China. The report went on to note that China accounted for 44%, or US\$5.5 billion, of YUM's US\$12.6 billion global revenue in 2011. As of early 2012, Starbucks had more than 550 locations in China, and mainland China accounted for 5% of the company's revenues. In the quarter ending in April 2012, KFC and Starbucks generated revenues of US\$1.2 billion and US\$176 million, respectively, in mainland China, compared to Apple's US\$7.9 billion in revenue during the same period.

Status and Independence ...

Apple devices are considered luxury products in China. According to the 2011 McKinsey Insights China report on "Understanding China's Love for Luxury," the luxury market in China is projected to hit US\$27 billion by 2015, accounting for more than 20% of the global luxury market. Apple's iPhone 4 retails for 6,000 RMB (~US\$945) in mainland China, which equates to roughly 25% to 30% of the average annual income per person in China.

Luxury, social status and standing out from the crowd often go hand in hand. In China, this relationship is accentuated by an innate Chinese cultural mindset known as *mian zi*, or "face." One's "face" implies one's reputation, honor and, to a certain extent, social standing. In a market with more than one billion mobile subscribers, a mobile device is, in some ways, the ubiquitous representation of status in China.

In the U.S., Apple's "Think Different" campaign successfully targeted consumers who classified themselves as innovators, creative thinkers and bold pioneers outside the mainstream. While few people in China actually understood this philosophy, they

did know that the iPhone is not only a luxury that not everyone can afford; it is also the embodiment of what Hannah Beech referred to in her *Time* magazine article, “The Cult of Apple in China,” as “individualistic western” culture, which allows Chinese iPhone owners to differentiate themselves from the masses. According to Mickey Du, an investment professional at Innovation Works — a seed-stage investment fund, founded by former Microsoft and Google China head Kai-Fu Lee, that focuses heavily on the mobile market in China — the iPhone is the ultimate expression of a smartphone in China. It should come as no surprise that the iPhone is approaching double-digit smartphone market share in Tier 1 cities such as Shanghai, which, according to McKinsey, accounts for 21% of China’s luxury market.

Chris Evdemon, a partner at the Innovation Works Development Fund, is quick to point out that Apple products are still mainly about status in China. He notes that the extent to which status plays a role in buying decisions for Chinese consumers depends on which segment of the Chinese market one is talking about. The average smartphone user in China is 22 to 24 years of age, compared with 35 to 40 years of age in the U.S. Whereas smartphone usage in the U.S. tends to be driven by work and utility, usage in China is centered more around entertainment and gaming. Evdemon points out that Chinese consumers use only about 20% of the iPhone’s functionality capabilities, which is further evidence that status is a major driving force behind Chinese consumer buying decisions when it comes to smartphones.

... But Also Functionality, Personalized Experience and Localization

According to the 2011 Annual Chinese Consumer Study report conducted by McKinsey, basic functional requirements, such as product durability for consumer electronics, still determine consumers’ choice of brand. A challenge that all luxury companies face in China is the abundance of knock-off products and unauthorized dealers. However, unlike a knock-off Louis Vuitton purse, which could serve the same basic functions as an authentic LV bag, the combination of the iPhone’s vast selection of apps from the App Store, music selections from iTunes, sophisticated software capabilities and seamlessly integrated hardware and

software user experiences cannot be easily replicated by knock-off products.

In addition, better-informed consumers and greater exposure to real luxury products, via media channels such as the Internet, increase the likelihood of being caught with a fake Apple product, thus deterring many Chinese shoppers from considering a knock-off product as a way to establish status. According to the 2011 McKinsey Insights China report, the percentage of consumers who said they were willing to buy fake jewelry dropped significantly, from 31% in 2008 to 12% in 2011. This general consumer trend toward authentic products as a way of enhancing social status and gaining access to superior functionality and design elements will continue to benefit Apple going forward.

Chinese consumers today are looking for more than just luxury goods; they want the luxury experience as well. According to BCG’s 2012 report, “Luxe Redux: Raising the Bar of the Selling of Luxuries,” sales for personal luxury goods increased 22% annually, while experiential luxury grew by 28%. In a market where consumers love to touch and feel before they buy, Apple has turned the retail shopping experience into entertainment.

Conventional wisdom suggests that product and market localization should be the centerpiece of any company’s entry strategy into China. The popularity of Starbucks’ green-tea frappuccinos and KFC’s egg tarts at their mainland China locations are evidence that product localization works. However, true to its “Think Different” company DNA, Apple seems to have done just fine to date with little-to-no product or market localization in China. The company is only now starting to experiment with the integration of Chinese search engine Baidu, online video site Youku and popular social-networking tool Sina Weibo (the “Twitter of China”) in the latest version of the Mac iOS.

According to Flipboard’s Tse, the launch of local lower-cost competitors might lead to continued measured localization of Apple products in China. As an example, local upstart Xiaomi, which was founded by Chinese entrepreneur and noted angel investor Lei Jun, sells integrated hardware and software handsets for 2,000 RMB (~US\$318) in China, roughly 50% of the cost of an iPhone. Xiaomi recently completed raising capital

at a US\$4 billion valuation and already has orders for millions of its smartphones in China. Despite the firm's lower price point and early traction, Tse is quick to point out that Xiaomi phones feel like tools to Chinese consumers, whereas iPhones are emotional experiences. Apple's success in China suggests that the company's uncanny ability to connect with its consumers on an emotional level is universal, transcending borders, languages and cultures.

Combination of Product and Market Fit

Apple has been a success story in China to date and is the envy of many other foreign companies that have yet to crack the Chinese consumer code. In some ways, Apple in China is the perfect combination of product and market fit. The company's meteoric rise in that country suggests that Chinese consumers are slowly evolving from merely making buying decisions based on status toward demanding products that also offer superior design and functionality.

Apple products appeal fundamentally to the Chinese notion of "face" and the desire for differentiation from the crowd, while also catering to increasingly important aspects of Chinese consumer behavior, including functionality, personalized buying experiences and localization. Although iPhone activations in China currently lag behind Android activations by a ratio of 4:1 (i.e., Android, 80 million; Apple, 20 million to 30 million), a gap that is widely expected to increase over time, McKinsey notes that the number of upper-middle-class households in China earning 94,500-189,000 RMD (~US\$15,000-US\$30,000) annually is expected to reach 76 million by 2015, which should translate into continued success for Apple in China for the foreseeable future.

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Europe



Water Scarcity: A Daunting Challenge with a Hopeful Future

At the very least, 2012 has been a challenging year for Spain, whose economy continues to suffer due to ongoing fallout from the financial crisis. While the country's construction industry has been at the heart of this crisis — contributing to, and weighed down by, the bursting of the real estate bubble — few people know that Spain's construction businesses are responsible for some of the world's most advanced water-treatment strategies and technologies.

The Global Water Industry

In 2011, Global Water Intelligence estimated a global market size of US\$316 billion, of which approximately US\$203 billion is accounted for by industrial and utility water-related expenditures, (excluding energy and labor). The water market can be subdivided into several distinct components.

First, waterworks companies provide water and wastewater utility services (e.g., water utilities, wastewater/sewer utilities and regulated and utilities services). Second, water-technology and infrastructure companies provide products and services that support municipal water and wastewater utilities, industrial customers and residential water treatment. These first two categories combined account for about 50% of water revenue, according to Snet Global Water Indexes. Third are the providers of technical equipment (21%), ranging from basic infrastructure (e.g., pumps, pipes and valves) to measurement (e.g., meters) and treatment (e.g., chemicals, activated carbon and ion exchange). And finally there are the service providers (26%), from engineering and construction to consulting, drilling, water-rights trading and storage and bottled water.

In addition to France's Veolia and Suez, the global water-services market is dominated by Spanish companies,

including Acciona Agua, Sacyr/Valoriza, Aqualia, Cadagua, Cobra and Tecnicas Reunidas. Spain's leadership in global water dates back to the 1970s, when the government and large infrastructure companies "bet on membranes," as Alejandro Jiménez, commercial director of services for Acciona Agua, noted. At a time when the global-water sector was still focused on basic exploration of ground and surface waters and energy-inefficient treatment of wastewaters, these firms were investing heavily in early osmosis desalination technologies that would prove to be pioneering. These technologies today are used in 70% to 80% of existing desalination capacity and close to 100% of new projects.

The reason for this innovating move can be found in Spain's own complicated water landscape. The northern regions — such as the Basque country, Galicia and Asturias — have a temperate climate with abundant rainfall and fresh water. On the other hand, the center and south of the country are arid regions, suffering from frequent droughts. Furthermore, the explosive growth of tourism in the coastal regions and the Balearic and Canary Islands increased demand significantly for fresh-water resources in these areas. Because transporting water from the north to the disparate dry regions was out of the question in most cases, generation of "new"

fresh water through desalination became a clear priority for Spain.

The substantial investments in desalination and wastewater-treatment technologies, and the osmosis membranes that followed, have lowered the fixed and variable costs of water generation over time. Thus, these technologies are employed widely today and have the potential to mitigate future water shortages. According to research estimates, by 2025, desalination will account for 11.5% of water generation compared with an installed capacity of only 1% in 2007. This will require important infrastructure investment projects, both public and private, as reflected in the Millennium Development Goals (MDG), which foresee US\$280 billion in public-water infrastructure spending.

Private water-service providers, such as the Spanish infrastructure companies or France's Veolia and Suez, project annual spending of approximately US\$37 billion in Asia, US\$25 billion in Europe (both up from US\$15 billion in 2010) and US\$18 billion in the rest of the world (both up from US\$7 billion) by 2016. Spanish infrastructure companies are well placed to take advantage of these developments.

The Spanish companies have been keen to develop business abroad, driven by the flagging economy at home where they have suffered from the collapse of the construction boom, the resulting downturn in new business for water operators and managers, and a deterioration in desalination margins. A recent list of prequalified bidders for a prestigious project in Ghubrah, Oman, was almost exclusively Spanish, even as the Middle Eastern market had previously been the domain of the French environmental infrastructure heavyweights, Veolia and Suez. Jiménez commented that the Middle East was a growing focus for the company but that it was also winning concessions in other parts of the world.

Given the relative cultural and linguistic proximity, South America, in particular, is looking to become a strong market for Spain's water firms. Sacyr will build its first desalination plant in the sub-continent for mining company Mantoverde in Chile. At the same time, Acciona has been active in the region for several

years, constructing Venezuela's first reverse-osmosis desalination plant, carrying out a technical-support and maintenance contract for the Arrudas WWTP in Brazil and constructing the Peravia drinking-water plant in the Dominican Republic and a water-treatment plant in Colombia, among other projects.

Water Scarcity — a 21st-century Problem

Economists agree that one of the most critical examples of price variation for a specific product occurs when the product suffers from an imbalance between its supply and demand. What is not so evident, however, is the fact that, due to continuous population growth, contamination of sources and inefficient utilization of available resources, water — perhaps the most important resource for mankind — is facing an ever-increasing supply/demand imbalance.

It is important to note that increasing demand is not the only explanation for water scarcity around the world. According to the United Nations (UN), there is enough fresh water on the planet for six billion people. However, this water is distributed unevenly, and too much is wasted, polluted or managed unsustainably. Although there is no global water scarcity as such, an increasing number of regions are chronically short of this critical resource.

The problem of uneven distribution becomes obvious when we compare countries rich in water sources (such as Colombia and Canada) to areas suffering from severe scarcity (such as North Africa and the Middle East). According to the UN, approximately 1.2 billion people (or nearly a fifth of the world's population) live in areas of physical scarcity, and another 500 million are approaching this situation. Projections show that, by 2025, 1.8 billion people will be living in countries or regions with absolute water scarcity, and two-thirds of the world's population could be living under water-stressed conditions.

The problem of water being wasted, polluted or managed unsustainably has become a serious issue in the last century, as water use has been growing at more than twice the rate of the increase in population. The UN estimates that water production lost due to leakage, theft and inadequate billing practices ranges from 10% to 30% in developed nations and from 40% to 50% in developing

countries. By 2050, untreated wastewater could contaminate a third of global annual renewable freshwater supplies. Including those who currently do not live in areas of physical scarcity, 1.6 billion people face economic water shortages, where countries lack the necessary infrastructure to make water from rivers and aquifers accessible. At the same time, agriculture alone utilizes 15% to 35% of its water in excess of sustainable limits.

According to Jiménez, agriculture illustrates the classic case of water mismanagement, where potable water is often used for purposes that could be served by other types of “reutilized” water, preserving the premium water for more vital purposes (i.e., for drinking or personal hygiene). This problem extends beyond agriculture, given that many parts of the world use the same premium, potable water from the faucet to flush toilets.

Finally, there is also a growing need for investment in infrastructure to deliver water to the end users and to transport wastewater back to treatment plants. The vast network of pipes in developed countries is deteriorating quickly and is in urgent need of repair. The situation is even worse in the developing world, where basic infrastructure is still lacking, particularly for wastewater treatment. In many parts of the world, poor urban residents still buy water from trucks because there is no piped tap water for their homes. Jiménez stated that people often do not realize how costly it is to bring water to their taps and that the prices they pay in water tariffs do not reflect the full costs associated with the processes.

Water scarcity is a complex and challenging problem, especially in light of ever-increasing global demands. Jiménez, however, pointed to the continuous investment in searching for new sources of water, such as desalination technologies, as one of the few foreseeable solutions.

Technology May Save the Day

Population growth, urbanization, agriculture and climate change will continue to strain fresh-water resources and serve to make the global need for water-treatment technologies ever more urgent. Desalination — that is, any of several processes that remove salt and other minerals from saline water — plays a critical role in addressing both short- and long-term water-supply shortages. Current desalination technologies can be

grouped into three main categories: membrane, thermal and other.

The predominant technologies are reverse osmosis (a membrane technology), multi-stage flash and multi-effect distillations (both thermal technologies). Reverse osmosis (RO) is a membrane-filtration technique. The thin, selective barrier allows water molecules through, but not the salt and mineral molecules. Multi-stage flash (MSF) is a water-desalination process that distills seawater by flashing a portion of the water into steam in multiple “stages” — i.e., spaces utilizing varying temperatures and pressure points to optimize evaporation of the salt. Multi-effect distillation (MED) also utilizes multiple stages where the feed water is heated by steam in tubes. Some of the water evaporates, and this steam flows into the tubes of the next stage, heating and evaporating more water. As of 2009, RO provided 53% of global desalination capacity, while MSF and MED provided 25% and 8%, respectively. To give some perspective to the cost variance across these technologies, the cost of water per cubic meter is US\$.90-US\$1.50 for MSF-treated water, ~US\$1.00 for MED-treated water, US\$.99 for RO-treated seawater and US\$.20-US\$.70 for RO-treated brackish water.

Though these technologies are quite effective and beneficial, they also have some challenges that can make them prohibitive, which include high energy usage, related CO₂ emissions due to the power supply, and contamination of and damage to the aquatic ecosystem. High energy usage occurs both on and off the grid, but is especially high in island systems where all the fuel used also needs to be transported to the site. Contamination of and damage to the aquatic ecosystem can be caused by high temperatures used in some of the technologies, uncontrolled salt content as a by-product of the treatments, pretreatment chemicals and contaminants stemming from the use of nuclear power.

The challenges outlined are significant, but perhaps the most palpable and daunting are the many high costs associated with desalination technologies. These costs come from a variety of sources, including upfront capital costs, energy costs, operation and maintenance, and cost of water at its source. Once the water is treated, additional costs arise from creating the infrastructure

to transfer this resource from the point of treatment to the point of use. Finally, where existing infrastructure is used, loss during water transfer, due to seepage and leaky pipes, creates a great deal of waste as very expensive desalinated water is lost even before reaching its destination. Because of high upfront capital costs and continued operating expenses, the bulk of the global desalination plants and infrastructure tend to be in high-income economies such as the Middle East and the U.S.

While these technologies are effectively desalinating water in various parts of the world, innovation is required to make them more cost-effective and accessible in remote areas that have the greatest potable water needs. One such innovation is reducing dependence on finite energy resources and focusing on usage of renewable energy sources, especially in remote coastal and island regions — a concept known as “renewable integration.”

Another area of innovation that leverages this integration focuses on aiding remote regions through the design of mobile and modular desalination systems. These smaller systems are easy to transport and assemble and can support the generation of potable water for consumption and sanitation in remote locations in addition to small-scale industrial operations. If these deployments were expanded to scale, they would help the technology move down the experience curve, increase adoption rates, lead to further innovation

and ultimately help to reduce the costs of desalination technology across more and wider areas.

Continued R&D is critical for the innovation needed to provide one of the planet’s most basic resources to its ever-growing population. Fortunately, certain factors are making it easier to provide justification for and secure funding — e.g., increased awareness of the importance of renewable energy, increased flexibility around modularity or centralization of water supplies and a better understanding of the environmental impact of desalination technologies.

Challenge and Opportunity for the Water Industry Leaders

As noted above, “the water problem” is multi-faceted and complex. Desalination technologies play a major role in addressing the treatment of water, but significant challenges remain for them to begin to counterbalance the growing need for this critical resource. Additional significant investment is needed to produce the necessary innovations for sustainability. The Spanish water-industry leaders have proven their expertise and abilities to push the technological and thought boundaries of their industry and are in a unique position to guide how we manage this vital resource.

This article was written by Azita Habibi, Rodrigo Sabato and Pia Schaefer, members of the Lauder Class of 2014.



Innovation and Regulation: Friend or Foe to the French Entrepreneur?

What do Sophia Antipolis, the Skolkovo Innovation Hub and Palmero Valley have in common? Their names are unknown to 90% of readers. In reality, they are three ventures founded on a similar principle — that innovation can be copied through the recreation of Silicon Valley. However, the conditions for entrepreneurship could not be more different from country to country.

According to the Global Entrepreneurship Monitor, “early-stage” entrepreneurs in 2010 made up just 5.8% of France’s adult population, well below America’s 7.6% and Brazil’s 17%. This clearly shows that France has a problem with creating new businesses destined for growth. More specifically, in France, taxation and regulation have worked against entrepreneurship by raising obstacles to innovation and crowding out early-stage investment. At the same time, the country’s best efforts to follow the advice of brazen economists and liberalize its economy have been met by both political resistance and less-than-stellar results.

Still, there is opportunity. France, the country that boasts home-grown giants such as Carrefour, Michelin and Saint-Gobain, can rediscover its entrepreneurial spirit through an examination of its own rich cultural heritage. What factors have led to the failure of past efforts to spur entrepreneurship in France? And how can the country innovate by working with, instead of against, its strong central government?

The economic problems in Europe are well-documented — bloated fiscal budgets, large deficits, high taxation and unwieldy regulation, to name but a few. In the midst of the Eurozone debt crisis, concerns have again been raised about member countries’ competitive and fiscal

sustainability, given increased scrutiny by credit-rating agencies and global investors. In France, two trends are most alarming: first, regulation that impedes the creation of small businesses dedicated to solving the problems of today and tomorrow and, second, high taxation that feeds unemployment while depriving enterprises of the resources needed to innovate.

Disincentives to Risk-taking

Regulation is, in part, the by-product of France’s rich cultural history. The success of the regimes that led up to the current incarnation of the French government, i.e., the Fifth Republic, evolved from an environment where the monarchy had absolute power into a system that vowed to protect the individual worker from the perceived malevolence of corporations. This protection, according to René Silvestre, the legendary founder of the French monthly magazine *l’Étudiant* and owner of Paris’s only privately funded start-up incubator, La Pépinière 27, creates a cultural aversion to risk-taking.

Silvestre recalls being strongly encouraged by faculty and advisors to join a more traditional, stable line of work after business school and to refrain from starting his own business. It would seem that this protection serves as almost a disincentive to risk-taking. While culture was Silvestre’s first hurdle, today several other

factors are working against the entrepreneur, including a regulatory environment that makes the French worker more expensive than his global counterpart. This system creates a large burden for the start-up by requiring a minimum salary of €9.4 (US\$12.20) per hour, compared with €5.9 per hour in the U.S. Silvestre believes France could do more to encourage “an entrepreneurial spirit.”

While paying even the minimum annual salary can be prohibitive for a young French start-up, dismissing an employee can be equally perilous. According to the most recent statistics from the OECD (Organisation for Economic Co-operation and Development), France in 2008-2009 ranked 6th among the top 40 developed markets in terms of employee job protection, while the U.S. ranked last — more than three standard deviations apart. In other words, while the social contract in the land of Rousseau places considerable emphasis on the protection of the individual, it also restricts the flexibility of corporations to hire and fire based on demand, making them more hesitant to take on employees from the start.

For example, an employee can be dismissed at any time in the U.S. In France, the process is both bureaucratic — requiring multiple rounds of notification — and time-intensive, with a minimum notification period of two months for an employee with two years of tenure. In addition, while the U.S. has no official federal laws governing severance pay, France requires a minimum severance payment of six months’ salary. Thus, while French regulation provides for a virtually unmatched quality of life, the same regulation hinders the success of the entrepreneur by creating a system that is both expensive and bureaucratic.

At the same time, taxation is equally restrictive to growth. While the French small- or medium-sized enterprise (SME) is constantly on guard to avoid human capital headaches, it is also at war with the force of its government’s tax structure. If an employee in France earns a salary of €30,000 per year, the company pays on average an additional 42% of the salary in benefits and social security, more than 4.5 times what it would pay in the U.S., before accounting for exchange rates. For a self-employed worker in France, the tax rate is more than

2.7 times that of the U.S., according to the latest analysis from the OECD in 2009.

The structure of the tax system *à la française* also contributes to the problem. In lieu of a direct sales tax, France employs a value-added tax system, called the *Taxe sur la valeur ajoutée* (TVA). The greatest distinction is that whereas a sales tax is applied to the consumer only at the time of purchase, the TVA is collected every time the goods or services are exchanged. While the resulting revenues for the government do not change — and given that this manner of taxation is used throughout the European Union — the obligatory accounting expenses to document the TVA properly for all of the SME’s transactions impose yet another tariff on the time and revenues of the developing business.

Caught in the Crossfire

To make matters worse, the French administration under President François Hollande is targeting corporations and the rich in an effort to balance the country’s budget. Unfortunately, small businesses are caught in the crossfire. In July 2012, *Time.com* reported that a government provision to provide a tax break on wages paid to employees working overtime hours in businesses with fewer than 20 employees is one of the policies that may be repealed. This deterrent to productivity would result in firms either hiring more employees or paying the additional taxes, both of which are equally punitive to the entrepreneur. Most recently, the Hollande administration announced a policy that will levy the same tax rate on capital gains as earned income, as reported by the *Financial Times* in October 2012. This same article quoted one entrepreneur saying, “The budget did have lots of good things for small businesses. But this [capital gains] measure is creating a situation that is catastrophic.”

The fact of the matter is that being a small business owner in France is an up-hill battle. There may be venture capital financing at the summit, but it is difficult to ascend with the weight of regulations, taxes and employment laws — in addition to a strong cultural headwind — all working against the start-up. Many aspiring entrepreneurs simply leave. According to a July 2012 article published by *The Economist*, there are

approximately 500 start-ups in the San Francisco Bay area with French founders. One of the things they find there is a freedom to fail. “If your firm goes under in France,” says Dan Serfaty, the French founder of Viadeo, a fast-growing business-networking website, “you don’t get a second chance.” While the French government has tried to level the terrain, it has neglected to lighten sufficiently the counterweights that impede every step.

New Framework for Innovation

So far, government initiatives to benefit entrepreneurs have been aimed at liberalizing the market. The biggest spark came from the decision in 1999 to pass *La Loi sur l’Innovation et la Recherche*, which introduced a legal and fiscal framework for the establishment of innovative businesses. The law created the status of *chercheur-entrepreneur* and encouraged cooperation between R&D in the public sector and in enterprises. Widely recognized as a major launching pad for the entrepreneurship industry in France, it has had a real impact on the space. Between 2000 and 2004 alone, the number of spin-offs created increased by a multiple of four to five, according to research conducted by Valerie Francois-Noyer and Dominique Droma of the University of Lille.

“Before, it was inconceivable to taint oneself with the business side of one’s art,” says Antoine Papiernik, managing partner at Sofinnova Partners, a Paris-based biotechnology venture capital firm and one of the few Frenchmen to be ranked in the *Forbes* Midas List of technology’s best investors in 2011 and 2012. However, “even with the law, it has taken almost 20 years to change the mentality that the entrepreneur is a thief, or not as good as a scientist or a public servant.”

In a similar attempt to bridge the gap between R&D and business, the *Credit d’Impôt Recherche* was launched in 2008 to fiscally lighten companies, large or small, by providing a 30% tax credit for up to €100 million of funds spent on research and development and 5% for amounts above that sum.

Another state initiative of note is Oseo, often considered the public bank of SMEs. In its main role of fostering innovation, Oseo acts as a guarantor for small business owners seeking funding, often assuming up to 70%

of a loan’s risk. In addition, FCPIs (*Fonds Commun de Placement dans l’Innovation*) were created as an alternative form of long-term savings for discerning French investors and help to finance start-ups and innovative businesses recommended by Oseo. According to a study conducted by this organization, by the end of 2010, more than €6 billion had been injected into these funds, and it had been noted that an innovative business is more than two times more likely to register a patent and four times more likely to be introduced in the financial markets if it has received capital from an FCPI.

The auto-entrepreneurship scheme is another initiative that cuts through the jungle of administrative red tape usually required to launch a company and dramatically lightens the heavy taxes and social charges companies pay. While regular outfits face set charges whether business is booming or bust, auto-entrepreneurs are taxed only on the revenue earned. It is no wonder that *La Tribune*, a financial daily, points out that, since its inception, more than 1.1 million individuals have enrolled. Unfortunately, the majority of auto-entrepreneurs in the program have no developed business plan before launch (62%) or have less than €500 invested in their own venture (55%), according to an October 2009 barometer cited by the Paris Chamber of Commerce and Industry. While this program captures the spirit, the evidence seems to suggest that citizens are gaming the system even as their tactic limits funds to actual entrepreneurs.

This non-exhaustive list highlights the French government’s multi-pronged approach to easing the path for innovative entrepreneurs. While each initiative has had varying rates of success, the evidence is clear: Those in the trenches will readily admit that the landscape has improved significantly over the last five to 10 years. However, despite these attempts, France still lags behind other countries in this arena.

And while the French government has managed to lighten some of the administrative barriers and has implemented means to encourage entrepreneurial innovation, it has yet to tackle other aspects. Among the many reasons why these changes have not worked, perhaps the most glaring is the paradoxical lack of financing and lack of liquidity.

A September 2011 publication by the Centre d'Analyse Stratégique, which operates under the authority of the French Prime Minister, revealed that, in the crucial finance sectors of business angel and venture capital, France lags behind its British and American counterparts. Not only does France have fewer business angels than the U.K. and the U.S., but it also invests, on average, smaller amounts of capital per investment. Dollar for dollar, assuming September 2011 exchange rates, the French angel invests only 30 cents for every dollar invested by his American counterpart, and 18 cents compared to his British equivalent. Moreover, in 2011, French angel investors financed only 280 opportunities, compared to American angels, who funded 61,900 investments. Even after adjusting for GDP and population, the French business-angel market pales in comparison. The lack of financial “traction” in the early stages of a business is depriving the would-be venture-capital market of potential funding opportunities.

France, however, has a well-developed financial market and boasts one of the highest saving rates (17.0%) in the Eurozone. A closer look reveals an unmistakable trend and appetite for life-insurance and savings products, as noted by the article above. According to Reuters, “the rate of growth in deposits in ‘Livret A’ savings accounts, which are tax free and have a state regulated interest rate ...” is leading the French to put their money into these accounts. Matthew Christensen, director at AXA Investment Managers, the asset-management arm of French insurance behemoth AXA, adds that, “part of it is the mentality and the culture, but more importantly it has to do with the incentive structure. Look at what the most popular investment vehicle is in France. It’s either ‘assurance,’ which is unlike any American insurance product, or tax free savings accounts. Behind the French ‘assurance’ product is a system of fiscal and tax incentives and guaranteed returns.” In a contextual backdrop of ever-increasing tax rates in France, one can begin to see the indirect effects that government regulations and taxes have on consumer-finance behavior.

‘Crowding-out’ Effect

Economic theory discusses some of the perverse effects an economy can experience from too much

government-led investment. The “crowding-out” effect, for example, pushes out private-investment spending and influences both consumer and corporate behavior. Could the French government inadvertently be creating a “crowding-out” effect by incentivizing consumers out of risk-adjusted investing, and could the government be partly behind the high French savings rate? Given ever-increasing taxes in France — especially those on gains — and given the tax-free nature of these savings accounts, this could help explain the lack of appetite for risk or, generally speaking, for small start-up business opportunities.

“Looking back at the debates for this past presidential election ... they managed to talk about everything, [including] biologically modified tomatoes, the Eurozone crisis, and unemployment, yet nowhere in the debate was there ever a discussion about how to encourage innovative entrepreneurship in France,” says Silvestre. “If you ask me, if you encourage innovative start-ups and give them the means and the runway, that will [cut] the unemployment rate” by 2%. In his view, the French government needs to think beyond just eliminating red tape and recognize the importance of innovative enterprises and their potential impact on the economy. This issue needs to be at the center of the debate.

The solution, however, must go beyond debate and contemplate a role for the French government. Typical calls to liberalize *à l’Américaine* simply do not work within a French context because they ignore the tools at the disposal of the French government. The flip side to regulation and high taxes is that the government has a credible fiscal authority and the ability to regulate its financial and commercial markets effectively. If government policy can incentivize people to save, could it not encourage people to innovate and to invest? Perhaps the French government should devise an incentive system that creates fiscal benefits for moderate amounts of risk-taking from both investor and entrepreneurial standpoints. New York’s NASDAQ has inspired other markets, such as Germany’s now-extinct Neuer Markt and China’s relatively new high-tech Shenzhen ChiNext. Creating liquidity for high-tech, high-growth companies could be another

complementary approach to encourage innovative entrepreneurship and investors with this risk-return appetite. Finally, we must not underestimate the cultural aspects of the equation. In creating the right incentive structure with a liquid capital market, the government could potentially engender a cultural shift that will

encourage, rather than dissuade, the next generation of entrepreneurs emerging in the marketplace.

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Retail Chains' Race for Russia

Thanks to relative political stability and strong oil and gas prices, Russia's retail turnover more than quintupled from 2001 to 2011 and now exceeds US\$600 billion annually. Data suggest that this sector is entering the steepest part of its growth curve. How will Russia's retailers face the challenges of this critical period of expansion? Will foreign retailers manage to get a slice of this growing pie?

Despite the widely held notion that the majority of Russia's GDP comes from extractive industries, this sector accounted for less than 12% of GDP in 2011, according to Rosstat, the Russian Statistical Bureau. The wholesale and retail sector, in contrast, amounted to more than 16%. As the per-capita income of Russia's 140 million consumers continues to rise, the retail sphere is becoming more important than ever.

Russia's enormous size and level of economic development mean that the retail market is currently divided among many players. While large retail chains dwarf the majority of competitors in market capitalization, their market share is relatively small. The X5 Retail Group, the largest food retailer, for example, controls only 5.6% of the market, and the top 10 food retailers comprise less than 20% of the market. This is in stark contrast to the developed markets of Western Europe, where leading food retailers hold a quarter of the market or more — e.g., Tesco (30% market share) in the U.K. and Edeka (26% market share) in Germany.

This opportunity for consolidation is fueling a pitched battle among Russia's retail chains to establish regional and national market share. Which chain prevails as top dog will depend on how well it can confront the logistical challenges of the country's decaying infrastructure, responsibly manage expansion and successfully navigate an uncertain regulatory environment.

The Name of the Game: Logistics

Russians have a saying: "Our country has two main problems: bad roads and fools." The cost of solving the first problem appears to support the truth of the second. Russia's road network stands at 610,000 miles, of which only 482,000 miles are paved. (In comparison, the U.S. has four million miles of roads, of which 2.7 million are paved.) Russian spending on infrastructure increased from US\$7 billion in 1999 to US\$111 billion in 2010 (from 3.5% to 7.4% of GDP), but, due to bureaucracy and corruption, the country gets far less bang for its buck. A 2010 study by Russian news agency RIA Novosti indicated that one mile of road in Russia costs approximately three times as much as a mile of road in the U.S. — a factor that increases rapidly as construction gets closer to large cities, especially Moscow. For example, the first 27 miles of the planned 415-mile highway between Moscow and St. Petersburg alone are projected to cost US\$1.2 billion (over US\$44 million per mile). Macquarie, a global investment banking and financial services group, reports that Russia's road network increased only by 1% between 1995 and 2008, while passenger cars increased by 125%.

In addition, there is a lack of quality warehousing in the country. Colliers International reported that there are 81 million square feet of industrial space in all of Russia, while the Chicago market alone houses 537

million square feet, according to real estate service firm Newmark. Industrial rental rates in Russia average about US\$11 per square foot. In comparison, operators in Chicago — one of the most expensive warehouse markets in the U.S. — charge US\$4 per square foot.

All the leaders in Russia's retail sphere are rapidly modernizing their logistical operations. Retail chain Magnit is currently recognized as the cutting-edge logistics innovator. As a result, it is rapidly closing in on X5's lead as Russia's largest retailer in terms of revenues. Its profits more than doubled in the first half of 2012 compared to the previous year, while X5's profits over the same period dropped 20.6%. X5 appears to be playing catch-up in logistics. During this period, its margins were hit by the high costs of opening a new distribution center and the set-up costs related to adopting a direct-import model.

How has Magnit approached this common problem and what is the source of its success? The company began in 1994 as a wholesale distributor of household chemicals in the Krasnodar region before entering the retail market in 1998. Located in southwest Russia, Krasnodar is the third most populous region in the Russian Federation and benefits from better infrastructure due to its importance in energy exports from both greater Russia and the Caspian Basin.

Magnit's main advantage over its competitors has been its effectiveness in bringing the supply chain completely in-house and cutting out the middle men who previously added costs and delays. Today, Magnit runs a fully independent supply chain, with over 3,900 of its own vehicles and a proprietary network of 15 distribution centers totaling close to 3.9 million square feet. It continues to expand this network, opening a new facility in late May 2012 to serve the Volga region and expand eastward.

Technology has played a key role in Magnit's emergence as a leading retailer in Russia. When the company entered the retail market in the 1990s, the information revolution was just beginning to have an impact on how business was conducted in Russia. Magnit transitioned to a technology-driven development model early on, utilizing enterprise resource software from SAP and then

hiring in-house specialists to refine its logistical models. This team simulates consumer demand based on a series of economic inputs, such as population density in a certain region, income per capita and the availability of disposable income. These data are fed into an automatic stock-replenishment system, thereby effectively managing inventory levels.

Because this lead in logistics will not last forever, Magnit will need to capitalize on its advantage in the short term to gain maximum market share and to exploit its relative cost savings.

Window of Opportunity: Closed for Good?

The Russian retail market is heavily saturated, and barriers to entry are high. The two foreign chains that have found success have one thing in common: They struck when the iron was hot. German retailer Metro and the French chain Auchan entered the Russian market in the early 2000s, before competitors became well-established. Of the top-10 leading food retailers, Metro and Auchan have been the only non-Russian firms to command a leading position in the retail sector.

Notably absent from the Russian market are Carrefour and Walmart, although both had attempted to enter. Carrefour, one of the world's largest hypermarket chains, opened its first store in Moscow in 2009, followed by a second one in Krasnodar. Yet after only four months, the company announced plans to abandon all operations in Russia, stating its "decision to sell the Group's activities in Russia and pull out of the market, given the absence of sufficient organic growth prospects and acquisition opportunities in the short- and medium-term that would have allowed Carrefour to attain a position of leadership." The global crisis was felt most acutely in Russia in 2009. Carrefour entered the Russian market in the only year in the past decade in which the retail sector shrank.

Walmart also waited until the late 2000s to make a move and had to watch, from the sidelines, Metro and Auchan's 30% year-over-year growth in this market. After Carrefour's failed attempt, Walmart ruled out a greenfield investment — i.e., building a manufacturing or production plant in an area, such as a "green field," where no such structures currently exist — and decided to concentrate on acquisition for its market entry,

focusing on Kopeika, Russia's largest discount chain. When it lost out to X5, which purchased Kopeika in late 2010 for US\$1.1 billion, Walmart closed its representative office in Moscow.

Both Carrefour and Walmart failed to enter Russia when the timing was right. By the mid-to-late 2000s, the retail market was developing rapidly but was already too well-established to permit an entry "from scratch." As Oleg Goncharov, director of investor relations for Magnit, explained, "the time for organic development of these large retailers has passed. They simply cannot enter the Russian market through organic growth, only by acquisition. Acquisition is the only platform [through which] a Western food retailer can enter this market now."

Walmart is already looking at a second attempt to access this market, having recently hired former X5 CEO Lev Khasis and appointing him senior vice president for international operations. Khasis was key in positioning X5 as the Russian market leader and grew the company to annual revenues of US\$15 billion. He will likely be the strategic player for Walmart's eventual entrance into the sector.

The Regulatory Fog of War

The retail sector faces an additional challenge to its continued consolidation and growth: an unpredictable regulatory environment.

On February 1, 2010, a new trade law went into effect that specifically targeted retail chains. It set a market-share ceiling of 25% in a single territory, said that contractual agreements between suppliers and retailers that include "excessively long repayment" periods and/or "excessively large wholesale discounts" are illegal, and empowered regulators to set the prices of "socially important goods." The opaque (and often myopic) nature of Russia's legislative process makes it difficult to determine the major political force behind this legislation. Publicly, the Federal Antimonopoly Service and then-Prime Minister Vladimir Putin came out strongly in favor of the law, ostensibly as a way to defend consumers from the power of big retailers.

On June 24, 2009, Putin addressed the law's drafting committee, noting, "It is hard to imagine a trade markup

of more than 70% in a country with a developed social and market system. This is too much. We have looked at some food together with producers and representatives of trade chains. On average, meat products are marked up 45%-50%.... In general, retail prices do not depend only on the settlement of problems between the producers, processors and retailers.... We understand that each link has its own difficulties. Nevertheless, by regulating relations within the chain —producers, processors and retailers — we could make a substantial contribution to stabilizing the retail market. It is important to find the right balance between them."

Economists in Russia, however, disagreed with this approach. On November 5, 2009, more than 30 leading economists (among them former Prime Minister Yegor Gaidar) supported an open petition against the law's passage, citing the harm that contracting restrictions and an artificial market-share ceiling would have not only on retailers and suppliers, but ultimately on consumers in the form of higher prices. The example of developed markets in Western Europe, where leading retailers control more than 25% of the national market but continue to deliver low prices to consumers, also casts a shadow over the reasoning of the Russian lawmakers.

Nevertheless, this is the new regulatory environment for large retailers in Russia. The rules may be the same for all the players but may impact them unevenly due to current market positioning. No single player has anything close to 25% national market share, but Magnit has a large regional market share in southern Russia. Under current regulations, the company is capped at this limit in this region and thus must seek expansion in other regions where its competitors are already firmly established. X5, the national market-share leader, has a more evenly distributed regional presence and, as a result of this legislation, can target competitors that have the new disadvantage of high regional market share.

The unpredictable nature of Russia's regulatory environment — and uncertainty about who is driving such regulatory changes — makes it very difficult for retailers to control their own destinies. Thus, they tend to plan for the short- to mid-term only. Investments that may take more than two or three years to show a return are simply too risky.

A Maturing Market's Long-term Perspectives

The retail sector's rapid expansion will likely be the main narrative for the next several years. But this will not last forever. As the market matures and is penetrated by modern-style retailers, what are the prospects for continued growth, and what are likely to be the biggest challenges facing retail chains in the future?

Logistics is currently the primary source of power in Russia's retail sector, but the future of brick-and-mortar sales will likely hinge on successful segmentation of a more mature market. This is underway to a certain degree, as X5, Magnit and others recently acquired or created discount and convenience brands to capture additional consumer segments at the small-transaction end of the market. Russian consumers are still extremely price-sensitive, so the gains to be made here are limited. As disposable income increases, however, there will be additional opportunities to tailor stores to consumers in different social, economic and age groups. Among discount retail chains, a split in the market could develop similar to that in the U.S., where Walmart focuses intently on low prices and markets itself accordingly ("Low Prices — Always") and where Target attempts to position itself as the upscale discount retailer ("Expect More — Pay Less").

Even though Russia became the largest Internet audience in Europe in 2011, with more than 53 million users, e-commerce there remains in its infancy. Consumers are highly skeptical of making purchases online and are

uncomfortable with transactions in which they cannot inspect products beforehand. The logistical challenges of regular door-to-door deliveries remain unsolved. The federal mail system has a poor reputation for parcel service, and the market for home delivery has been too small for large parcel delivery services to expand nationwide. These trends are underscored by the fact that Russia's current leader in e-commerce, OZON.ru, relies primarily on pick-up points rather than home delivery and still conducts 80% of its transactions in cash. This is largely a question of critical mass. Once electronic transactions and deliveries become more common, faith in their security and reliability will increase. A virtuous cycle would likely fuel very fast growth in e-commerce when the market ripens.

Beyond the practical challenges of segmenting markets and executing e-commerce, Russia's retail future is in the hands of Generation Y. This population, most of whom have no direct memory of or connection to Soviet Russia, has grown up in an era of rapid economic expansion and an explosion of consumer choice. What social, political and cultural decisions will they make? What does "the good life" mean to them? The retailer that can respond to these needs will have the best chances for long-term success.

This article was written by Marina Donova, Max Horsley and Jonathan Weber, members of the Lauder Class of 2014.



Is the End of the German Beer Industry Near?

Germany is inextricably associated with beer. Indeed, one is prompted to envision pictures of Oktoberfest, where high-quality beer is served in steins by waitresses wearing the traditional Dirndl. However, the beer industry, one of Germany's oldest, is under threat. Germans, for whom beer is a part of tradition, are now drinking less beer than ever — a development which coincides with a centuries-old, self-imposed Reinheitsgebot (“purity law”) which dissuades breweries from experimenting with new types of beer to cater to 21st century beer aficionados. Breweries in Germany also have not expanded abroad — the result of a preference among promoters to remain small, family-owned businesses.

According to Walter Koenig, managing director of the Bavarian Brewers Federation, more than 41 large- and 182 medium-sized breweries have closed since 2000, resulting in job losses. According to the online magazine *slate.com*, Berlin, which sustained some 700 breweries in the early 19th century, now counts only about a dozen firms. An Ernst & Young report states that 27,570 people were employed in German breweries in 2010, with another 414,000 hospitality jobs and 17,400 retail sector jobs attributed to the sale of beer. This represents a decline of 11,000 jobs, compared to 2008. A further decline in this industry can have significant consequences for the German economy.

Furthermore, beer is no longer the core business for many of the surviving breweries. Promoters are building golf courses, renovating castles and opening beer gardens to sustain and, in some cases, even subsidize the brewing business. Despite the decline, this industry remains highly competitive, with more than 1,300 breweries nationwide catering to a population of just over 80 million. Consolidation, which has already occurred globally, has slowly begun in Germany, as foreign players acquire German breweries. Today, five out of the six producers in Munich are owned by global

majors. Looking ahead, changes in demographics, more serious penalties for drinking and driving, and a focus on better health are expected to contribute further to the decline in consumption.

Beer-brewing is perhaps one of the oldest industries in the world. Originally produced by monks as a religious drink, beer was actually preferred to wine because it tasted less sour and was easy to store in barrels. It was also cleaner than water and helped prevent illness. The philosopher Plato once allegedly said, “He was a wise man who invented beer.”

Beer gradually became the drink of the masses, with microbreweries present in each town. According to Koenig, in the 1970s Germans consumed 150 liters per capita annually. Current consumption is 106 liters per capita, a 30% decline. (The world leader is the Czech Republic, which reported 159.3 liters per capita in 2009.) “This number is still declining,” Koenig adds. Today, as in the U.S., the trend of microbreweries and craft beer is catching on, putting the larger producers in jeopardy.

Oktoberfest and the Reinheitsgebot

According to official statistics from the City of Munich, Oktoberfest is Germany's premier tourist attraction, with

more than six million attendees and more than seven million liters of beer sold each year. It is a celebration of beer and an important part of the country's culture, with nearly 75% of the attendees being Bavarian.

The first Oktoberfest occurred on October 12, 1810, to mark the marriage of Crown Prince Ludwig to Theresa of Bavaria. All the citizens of Munich were invited. The event was so successful that it was decided the celebration should occur every year. Of the 600 breweries in Bavaria, only six local Munich breweries are allowed to sell beer at Oktoberfest, preventing smaller brewers from leveraging the festival's brand equity.

Two hundred years after the creation of Oktoberfest, Germany does not have a globally recognized beer brand, and it is still difficult to grab a pint of German beer in most parts of the world. In addition, Oktoberfest is now being viewed by some as not very classy. According to Anna Breitsameter, a lecturer at Munich's JYM Institute, "The image of drunken people every year does not leave a favorable impression on the locals." While promoting the fun aspect of beer to a certain segment of the population (tourists and younger people), this has also promoted wine as a more sophisticated option.

As for the Reinheitsgebot ("purity law"), it is the world's oldest consumer legislation. Enacted in 1516, it stipulated that beer must contain only malted barley, hops and water (wheat and yeast were added later). All German breweries adhered to this law until 1987, when it was overturned as an impediment to European free trade in favor of the Vorläufiges Deutsches Biergesetz ("provisional German beer law"). Bavaria has abided by the Reinheitsgebot since the 15th century, an entire century earlier than the rest of the country. According to Koenig, "German brewers are proud of their adherence to this law."

Although the Reinheitsgebot has been replaced, it may have dissuaded German breweries from experimenting and innovating. This was a gold standard for the taste and quality of beer, and brewers followed it to the letter; additions of any type were strictly prohibited. German tastes also began to conform to this law. While demand was growing, the breweries did little to invest in innovation. As a result, today there are only about 20

common styles used for brewing in Germany, whereas craft brewers in the U.S. are working on at least 100, according to *slate.com*.

Challenges Facing the Industry

The reality is that Germany's beer industry is shrinking — for a multitude of reasons.

The country is undergoing significant demographic changes. Like most of Europe, its population is aging rapidly, with a fertility rate of just 1.4 births per woman. Thus, the core beer-drinking population in the 18-34 age group is declining. Moreover, the frequency of beer consumption is also falling. In the past, Germans would not think twice about having a beer for breakfast. Today, such behavior is frowned upon. The concept of "Das bier ist gesund, zu jeder Stund" ("beer is healthy at any hour") might now be an anachronism.

In addition to these demographic changes, "preferences of the youth are evolving," says Johannes Elsner, a partner at McKinsey's Munich office. Today's youth do not think of beer as fashionable. The trend is moving more toward alco-pops, or alcoholic mixed drinks. According to Walter Bitsch, a wine trader, "beer is perceived to be low end, compared to wine." An official at the Bavarian Economic Ministry adds that, "the youth of today wants to create its own trends." In fact, according to Koenig, Germans spend more from the household alcohol budget on wine than on beer.

Experts such as Koenig suggest that the German market might be saturated. "With 1,341 breweries, over-capacity is an issue." This could result in oversupply and, indeed, average prices of beer have been falling since 2008. In the EU, most countries have less than 100 mid- to large-sized breweries. This is combined with the fact that the majority of the German breweries are subscale, conservative family businesses. Small scale means less money to invest in global brand building and exports. As Josef Kronast, the brew master at Maxrainer Brewery (winner of the Best Beer Germany 2012), notes, "when we receive an order from Russia or China, we fulfill it as a one-off. We do not actively seek new business in these markets." At the same time, demand for German beer is growing rapidly in those countries. Germany exports about 15% of the beer it produces, less than its neighbor,

Holland. In fact, Maxrainer sells its beer within just 70 km of the brewery. It cannot even be found in Munich, the beer capital of Germany, just a two-hour drive away.

Over the past two decades, government intervention has not been overtly supportive. By spreading the message of a healthy lifestyle, Germans have been drinking more water than beer since 2002 and exercising more. Mariam Yunis, a physician at the Backnang Hospital in southern Germany, is more direct: “Among all alcohols, beer contains the highest calorie intake.” However, Kronast insists that “this is a misperception; beer itself is not fattening. Rather, it makes you hungrier.” Furthermore, lower alcohol-tolerance limits for drivers and an increase in the use of private cars have dissuaded people from drinking copious amounts of beer. Some states are also considering banning the consumption of alcohol in public places and on public transportation. Koenig considers this “extreme” and spends a considerable amount of time speaking with politicians about his cause.

German Beer’s Loyal Fans

Cultural and commercial reasons have shaped the German brewing industry, which now contributes about 1.5% of the GDP of Europe’s largest economy. The Reinheitsgebot influenced the creation of high-quality beer, something Germans prefer even today. Therefore, international players have not been able to make a dent in the German market and have had to acquire local brands to gain entry.

Second to loyalty, quality also drives beer sales. Since German breweries are family-owned, they have ensured high-quality standards by maintaining end-to-end control. Richard von Weizsaecker, former president of the German Federal Republic, once said, “We could be happy if the air was as pure as beer.”

Breweries have other competitive advantages as well. For instance, distribution is based on close and exclusive relationships between the brewing family and the promoters of a bar or beer garden, and lasts for generations. This guarantees a steady cash flow for the brewery. According to Kronast, “The bars which sell our beer have been with us for more than 60 years; we find it difficult to compete for new bars as the large players

and global majors price us out and offer other benefits.” Often breweries also own priceless real estate, including bars and guest houses, that retail their products exclusively. Some even inherit castles and hotels which are now being spruced up to attract weekend visitors.

Thus, the industry has many things in its favor, and, if a proper strategy is crafted, there could be a renaissance. Koenig and the brewery associations have begun to step in — by educating management through conferences and attending expos and exhibitions in foreign countries, for example. There is a realization that the industry can survive, but certainly not in its current form.

What Lies Ahead for the German Brewing Industry?

The German brewing industry is at a crossroads. According to the Baarth-Haas Group Beer Production report of 2011, Germany is now only the fifth-largest producer, down from second place in 1990. Local demand will continue to decline, making it nearly impossible for all 1,341 breweries to survive. According to Kronast, “Germany will eventually follow global trends, which will result in the creation of three to five dominating brands and a few local beers.” Unless something is done, the industry will continue to suffer.

Is there another option for the industry? Perhaps. Just across the border, French champagne producers are giving German brewers some inspiration. Today, France boasts 1,600 champagne manufacturers with global brands, such as Veuve-Clicquot and Moët et Chandon. The industry is thriving as a result of a few large manufacturers that have invested in building champagne’s image as a luxury drink. At the same time, some smaller companies have long survived on this aura alone. It is not uncommon to see Moët or Dom Pérignon hosting exclusive events in Shanghai, Moscow and Mumbai. In addition, these products are easily available at high-end supermarkets and at duty-free shops around the world.

Unfortunately, no German brand has been able to cultivate a global following; there is no German beer among the world’s top 20. Much of this stems from limited marketing, supply constraints and the small

size of the breweries. This is slowly changing. Paulaner (an InBev company) is opening restaurant franchises in key cities, such as Shanghai, where connoisseurs can enjoy their beer straight from the tap. In addition, Maxlraier acknowledges it is unable to keep up with the one-off export demand from Russia and China. The company cites prohibitive logistics and marketing costs as constraints.

Looking to the future, German breweries need to invest in a few critical areas. Classic marketing analysis suggests that these breweries should capitalize on the purity and quality of their beer to increase prices. Unfortunately, this strategy might not work because German consumers are price sensitive. However, in emerging economies such as Russia and China, the nouveau riche are willing to pay for quality; this niche should be exploited in a more formal way. One strategy is for groups of brewers to collaborate and open representative offices in Asia, which can drive sales and supply in this region.

Strong brands are also critical. The Bavarian Brewers Federation, for instance, is attempting to brand Bavarian beer with the “Made in Bavaria” tag and is now seeking exclusivity for the word “Bavarian.” “We recently discovered that there is a brewery in the Netherlands that sells a beer called Bavarian beer,” says Koenig. “We are doing everything possible to get them to change their brand, [because] it is clearly not Bavarian.” Established brands such as Paulaner need to take responsibility not just for branding themselves, but also for serving as global ambassadors for the industry, experts say. In addition, breweries need to quickly counter the notion that beer is a low-end drink, compared to wine, to retain younger drinkers.

Limited access to German beer is also a common complaint. For instance, the Mexican beer Corona is available worldwide, whereas Bavarian beers may

not even be available in Berlin. When brewers are asked about exports, a sense of conservatism remains. “Exports are expensive — we need to transport the beer in temperate conditions so that they do not perish. Creating such a logistics system is neither cheap nor easy,” suggests Kronast. Unless the brewing industry invests in building exports, this cottage industry, so intertwined with German culture, may not exist within the next few decades.

Brewers know that their “traditional” German target market is shrinking. Therefore, they do not necessarily need to be Reinheitsgebot-compliant; they could look to other models, such as the highly successful flavored Belgian beer. Innovation and product diversification are critical if German breweries want to continue to exclude foreign players.

The German government must step in to support its traditional industries, say experts, adding that the government needs to develop a long-term marketing and branding campaign for this industry. These experts suggest that the pros and cons of rules against drinking in public spaces, on mass transit and so forth should be weighed carefully before being promulgated. Jobs are also at stake, and state support during this critical phase is a necessity. However, as a government official noted, “We are not sure whether breweries need a subsidy. The City of Munich already spends a lot of money on Oktoberfest.” This might be true for direct subsidies, but support in other forms is clearly needed, industry observers note.

When confronted with these challenges, Koenig admits, “This will be a slow process.”

This article was written by Helay Fazel, Xavier Torras Flaquer and Venkatesh Saha, members of the Lauder class of 2014.



The Future of French Wine: Overcoming *Terroirisme* and Stagnation

If there is a product whose provenance consumers care about, it is wine. There are two methods of classifying wine, cépage and terroir. The cépage (varietals) method identifies the wine by the type of grape used in its production. In contrast, the terroir (land-based) method highlights the geographical origin of the wine, its region-specific taste and the winemaker's skill.

Traditionally, in France, wine is classified by its *terroir*. This classification emerged over the centuries as villages developed specific approaches to winemaking, resulting in regionally unique wines. Consequently, sophisticated French consumers developed a rich understanding of these regions, which enabled them to identify the nuances between wines and the geographic impact on their flavors. As viticulture developed in the New World — in countries and cultures that did not traditionally consume wine — *cépage* emerged as the principal means of differentiating and marketing wines. Initially this approach sought to overcome the lack of traditional *terroirs* in the New World. However, in the last 50 years, it has emerged as the dominant marketing trend in the wine industry. In fact, the industry consensus is that the average consumer in 2012 is more likely to select his wine based on its *cépage* and the brand that the winemaker has developed than on the wine's *terroir*.

In defiance of marketing trends in the wine industry, many French winemakers continue to identify and market their wine based on *terroir*. This desire to perpetuate tradition maintains a degree of complexity in understanding French wine, limiting its accessibility to new consumers and hindering sales. Rather than looking to adapt, many French winemakers and critics revert to *terroirisme* and overemphasize the importance of *terroir*

in defining wine. This approach does not seek to make good wine, but rather emphasizes the traditional aspects of geographically centered wine production, ignoring modern trends.

In a growing market, a *terroiriste* approach to winemaking would not hinder the French wine industry. However, the French wine market is in crisis. Between 1980 and 2010, the percentage of non-consumers of wine doubled in France, increasing from 19% to 38% of the adult population. French consumers drink less and have become more demanding. Like consumers the world over, they are searching for a high-quality wine at a reasonable price. As *cépage*-based competition from the New World and from other European countries pours into France, winemakers need to rethink their marketing strategies in order to succeed in an ever-more challenging marketplace. Some French winemakers are adapting and producing increasingly more *cépage*-based wine, but the majority remains rooted in tradition.

To understand the opportunities available to these winemakers, it is important to examine first, why a winemaker would choose a marketing strategy based on *cépage* rather than *terroir*, and second, where maintaining a *terroir*-driven approach adds value. Is there one approach that French winemakers should adopt uniformly, or should they develop individual

strategies that play to the strengths of their wine while meeting the needs of the modern consumer?

Cépage Delivers Value for the Money

The choice to identify and market a wine based on its *cépage* makes it accessible to a greater number of consumers. The world of wine can easily overwhelm neophyte consumers with varietal and geographic nuances. To understand this world, and to appreciate the influences that define a wine's flavor, requires education, according to Franck Ramage, head of the wine department at Le Cordon Bleu Paris.

Marketing a wine based on its *cépage* allows winemakers to limit the complexity of their products and access consumers who are interested in wine but lack knowledge. While the domestic French wine market stagnates, wine is a booming industry in many countries that do not have a tradition of winemaking. A marketing strategy based on *cépage* facilitates French winemakers' entries into these markets, where knowledge of a specific *cépage* — such as Chardonnay — may be commonplace, but a *terroir* such as Chablis would be unusual. Furthermore, producing *cépage*-branded wine reduces production costs for winemakers. They can procure grapes from a large geographic region rather than being tied to a specific and often-small *terroir*, and they can work with an oenologue to manufacture a modern flavor that appeals to the broadest range of consumers.

According to Pierre Salles, general director of the Association of Winemakers of the l'Île de Beauté in Corsica, marketing a *cépage*-branded wine also allows winemakers to abandon traditional, sober French labeling and bottles, and replace them with eye-catching logos and innovative bottle designs to develop the wine's brand identity. The result in France is the creation of branded *cépage* wine that appeals to the greatest number of consumers, at a lower price point than the *terroir* alternative.

The French region that exemplifies the transition to *cépage*-based wine is Languedoc-Roussillon, described by Ramage as “a breath of fresh air in a stagnant market.” Producers in this region have specifically positioned their *cépage* wines against entry-level wines from the New World — such as Gallo (from California) and

Yellowtail (from Australia) — competing on low cost derived from the region's large size and agricultural strength. In addition, these producers work actively with oenologues to ensure that their wines conform to modern taste and to the needs of companies with global distribution networks and maintain a consistent flavor, rather than varying by the year.

Although some *terroiriste* critics have attacked the *cépage* wine from Languedoc-Roussillon, claiming it debases French viticulture, it is important to understand the support this wine provides to the French wine industry. With 35% growth from 2008 to 2009 (the most recent statistical data available), it provides a growing market that allows winemakers without a known *terroir* to produce and sell their wine, and it creates jobs in a struggling industry and low-growth economy.

Cépage-branded wine is intended as a table wine and is frequently sold in France for between €5 (US\$6.50) and €10 (US\$13) per bottle. However, when winemakers try to raise the price point of their *cépage* wine above €10, they struggle against competitors with more *terroir*-oriented products. According to Stephane Girard, founder of Wine by ONE, a chain wine club, bar and shop in Paris, “a consumer who passes from €10 to a superior price requires an increase in quality. This consumer is no longer looking for just a nice, refreshing drink. Rather, the consumer wants something unique and different.”

Winemakers in the New World, such as Bodega Catena Zapata in Argentina and Robert Mondavi in the U.S., have successfully developed premium-branded wines that indicate their *cépage*. In France, however, premium consumers remain attached to *terroir* and the influence of geography on a wine's flavor. French consumers — particularly wine connoisseurs who are willing to pay high prices — understand *terroir* and appreciate its subtlety. Consequently, *cépage* wine remains a solidly cheap and cheerful option in the French market, while struggling to increase its price point.

A winemaker's choice to produce and market a wine by *terroir* is deeply rooted in centuries of tradition intended to highlight the uniqueness and complexity of wine produced in a particular geography. Producers of these wines have a more limited reach to consumers, as

they require more-knowledgeable purchasers who can appreciate their wines' nuances and be willing to pay higher prices. In light of global trends among new wine consumers, this poses a challenge for winemakers who market and produce wine by *terroir*.

At the same time, successful *terroir* wines — such as those from Bordeaux and Bourgogne — have shown the prominent place of this marketing strategy, especially in the high-end domestic and international markets, according to Salles. For example, at the Galleries Lafayette, the luxury department store in Paris, a boutique called the *Bordeauxthèque* sells wine from the region of Bordeaux, which can cost up to €25,000 (US\$32,445) per bottle. Lesser-known *terroirs*, on the other hand, may command much lower prices but will remain slightly above the price point of *cépage* wines in the French market.

In France *terroir* wine is more sophisticated than *cépage* wine. Winemakers from the Châteauneuf-du-Pape area traditionally use a combination of up to 12 different grapes. Located in the Rhône region, this stretch of land has produced wines with grape varieties such as Grenache and Cinsault, which are known for their sweetness, warmth and mellowness, and Clairette and Bourboulenc, which are known for their finesse, fire and brilliance. This example also illustrates that the ability to shape a *terroir* wine depends on a multitude of factors other than geography. Beyond the physical factors such as soil and climate, the winemaker can shape the taste of a *terroir* wine through the choice of grape, the winemaking techniques and the process of aging.

Consumer preferences in the mass market have shifted. The number of regular consumers of wine in the French market has been declining over the past 20 years, with a higher proportion of moderate consumers and non-consumers. In addition, there is an influx of newer consumers of wine in the global market. In light of these trends, the ability for producers of *terroir* wine to market to and educate consumers is becoming more difficult. Because there are nearly 500 types of officially recognized *terroir* wines in France, such an education takes time to establish and may be costly and difficult to implement, given that *terroir* producers are often

fragmented and on a smaller scale. While this may be facilitated through professional and government associations, success remains limited.

In the case of the French wine market, according to Girard, only 3% of wine consumers know what *terroir* is, versus 30% who understand the notion of wine classified by *cépage*. For newer wine producers, the choice of marketing and producing their wine by *terroir* may be risky. The brand and reputation of a particular *terroir* take time to establish, both in the local French wine market and on a global scale. As certain preferred *terroirs* are well-established in the local and global markets, the winemakers' ability to market and win over consumers is a challenging goal.

Can Cépage and Terroir Coexist?

Given the stagnation in the domestic French wine market and the market's growth outside France, it is clear that marketing strategies must evolve if winemakers wish to increase their sales. In a concentrated and differentiated market, where there can be literally hundreds of wines on a supermarket shelf, an average wine cannot survive. According to Girard, the modern consumer is looking for a wine that corresponds with her preference in both taste and quality and where value reigns supreme. Girard acknowledges that there will always be wines that employ *cépage*-only and *terroir*-only marketing strategies, where cheaper wines will be *cépage* and more expensive wines will be *terroir*. However, if winemakers begin to rethink and reformulate their marketing strategies, they will be able to attract new consumers.

Despite historic trends that have shown French winemakers greatly favoring *terroir* over *cépage*, some *terroir* French winemakers have recognized and responded to the global trend of *cépage*. Cahors, a commune in South Central France, is an excellent example of a *terroir* that has adapted to current market trends. Wine from this area is made predominantly with the *cépage* Malbec, which is originally from France. However, Argentine winemakers in Mendoza have popularized the *cépage* to such a degree that the Cahors winemakers have capitalized on the *cépage*'s current popularity and added Malbec to the labels of their traditionally *terroir* wines.

Jérémy Arnaud, head of marketing for the wines of Cahors, explained that they were the first vineyards in France to believe in the mixture of appellation and *cépage*, with the specific goal of increasing international sales. As a result of this innovative approach to marketing, Cahors has witnessed strong growth in its exports since the decision in early 2009 to indicate the *cépage* Malbec with the name Cahors on their bottle labels. Between 2010 and 2011, sales of Cahors in the U.S. increased 7.9%.

The question, therefore, becomes what does a winemaker in France do today with a *terroir* that is not well-known or understood internationally? There is a need to blend tradition with modern marketing techniques and the tendencies of the modern marketplace. France is no longer the only country in the world with good wines, as evidenced by the growth in global competitors in wine production and the current crisis in the French wine market. The rise of wine markets in the U.S., South America, South Africa and Oceania has created a more competitive marketplace, and the onus is on winemakers to make their products both accessible and comprehensible to today's consumers. Consumers are seeking ways to discover and learn about wine in order to find what is the most pleasing. This discovery can be accomplished in a variety of ways: through an attractive

label design, a wine-tasting event or an education in the various nuances that differentiate one wine from another.

The notion of *terroirisme* does not account for the major evolutions in today's wine marketplace, but neither is the *cépage* approach a panacea. In essence, there are certain key elements to producing a successful wine: a knowledgeable winemaker, a salient marketing strategy and an ability to seduce the clientele.

What becomes increasingly important is how the wine is positioned. A segmented market may be the best way to target French consumers. A *cépage* wine caters to consumers who simply want to spend an agreeable moment with friends, while a *terroir* wine tends to be used to celebrate bigger and more important events in one's life. The interesting case study is the middle market, where winemakers will need to convey to their consumers the wine's history, taste and image in a creative and novel manner. Perhaps adopting a mixed approach, as found with the wines from Cahors, should inspire winemakers — retaining some tradition, but increasing the wine's accessibility. At the end of the day, what matters most to modern consumers is the right wine for the right moment.

This article was written by Michael Cohen, Girish Nanda and James Wilson, members of the Lauder Class of 2014.

The Middle East



Silicon Wafers and Semiconductors: A New Black Gold for Abu Dhabi?

The United Arab Emirates (UAE) has sought to become a globally competitive economy since its founding in 1971. The country's oil wealth and forward-thinking approach has allowed it to progress toward this goal through capital-intensive economic initiatives, social programs and legal reforms.

The UAE's leadership considers economic diversification a necessity in order to protect the country's economy from oil-price fluctuations and to diversify sources of income. Sheikh Zayed bin Sultan Al Nahyan, the founder of the UAE and ruler of Abu Dhabi until his death in 2004, believed that "future generations will be living in a world that is very different from that to which we are accustomed. It is essential that we prepare ourselves and our children for that new world." This diversification is needed as public sector employers have become saturated, with some ministries spending as much as 92% of their budgets on salaries. Given these factors, Sheikh Zayed announced his intention to transition the country from an energy-based economy to a knowledge-based economy, dependent not on natural resources but on competitive, highly educated human capital.

To achieve this goal, the Abu Dhabi government established the Mubadala Development Company in 2002. This 100% government-owned investment vehicle is intended to act as a catalyst for economic diversification. Since its founding, Mubadala has invested in multiple industries, including aerospace, healthcare, information and communications technology, oil and gas, real estate and infrastructure and renewable energy. In 2008, the company also helped to launch the Advanced Technology Investment Company (ATIC) as a means of entering the advanced technology sector.

ATIC has focused its investment on semiconductors — silicon wafers that act as the brains of every electronic device. "The semiconductor industry is exactly the industry [Abu Dhabi's] leadership was looking for — highly knowledge intensive, globally competitive, highly productive and integrated into the global economy," ATIC's CEO Ibrahim Ajami said in an interview. In 2008, ATIC and Mubadala agreed to invest jointly in Advanced Micro Devices (AMD), a leading semiconductor company, as part of a joint venture designed to create a new semiconductor manufacturer out of AMD's former manufacturing arm in Dresden, Germany. The new company became known as GlobalFoundries. A year later, ATIC acquired Singapore-based semiconductor manufacturer Chartered Semiconductor and integrated its operations into GlobalFoundries to create the world's first globalized semiconductor fabricator. After steadily increasing its stake in the company, ATIC bought out AMD and took a 100% share in GlobalFoundries in March 2012.

In 2012, ATIC and GlobalFoundries opened a new foundry, Fab 8, in Malta, New York. The US\$4.6 billion fabrication plant is the world's most advanced semiconductor production facility. It currently employs more than 1,300 workers and plans to expand to at least 1,600 by year's end. To develop a pool of potential employees for these positions, GlobalFoundries created training programs at more than 17 local community

colleges. At the same time, the company invested in advanced semiconductor research and development in the New York region, partnering with IBM and members of its chip development alliance to expand new chip technology at the College of Nanoscale Science and Engineering at the University at Albany, New York. As a result of these and other initiatives, *Forbes* ranked the Albany-Schenectady area, where Fab 8 is located, as the fourth best city for jobs in America in 2012.

The ability to invest in a capital-intensive industry at a time of global financial constraints has enabled ATIC and GlobalFoundries to realize strong growth in market share. However, ATIC's investment in the semiconductor industry targets more than just financial returns. Jobs in this industry are in line with the types of employment opportunities the UAE government has been aiming to create for its citizens: stable, well-paid, semi- and high-skilled labor jobs, as well as managerial, design and engineering positions.

ATIC and GlobalFoundries would like to replicate their economic impact in New York at home in the UAE. In 2010, less than two years after GlobalFoundries' founding, ATIC's Ajami announced the future establishment of a production facility for state-of-the-art, 300-mm silicon wafers in Abu Dhabi and revealed the company's intention to make GlobalFoundries and this facility the "nucleus" of a new local technology cluster.

In February 2011, Mubadala announced that it would fully acquire ATIC. This acquisition gives ATIC access to the additional resources and capital "needed to drive the creation of innovative industries for the benefit of Abu Dhabi and the UAE," according to a statement by Mubadala COO Waleed Al Muhairi. However, both ATIC and the UAE government as a whole recognize that investment in human capital is a prerequisite for success.

Human Capital Development

To prepare for the development of a high-tech cluster and a GlobalFoundries manufacturing facility in Abu Dhabi, ATIC and other local entities have developed a range of human capital initiatives, from primary and secondary school education to vocational training and graduate studies. Each program aims to motivate Abu Dhabi's young population to pursue careers in science

and technology and to give them the knowledge and skills to do so.

Beginning in 2009, ATIC partnered with the Abu Dhabi Education Council (ADEC) to create the Al Nokhba ("the elite") program, which helps undergraduate and master's level science and engineering students pursue careers in the semiconductor industry. This program initially selected 20 students studying science or technology at local universities for a summer internship program at GlobalFoundries' Dresden fabrication facility. It provided a rare opportunity for these interns to gain experience with applied sciences and manufacturing. In 2010, the program grew to 60 students — half men and half women — and was expanded to include the Al Nokhba scholarship, which funds undergraduate or graduate studies for students in the Al Nokhba program.

This effort has already produced results. One former Al Nokhba student has invented a new way of integrating microchips into prosthetic limbs, giving the disabled increased mobility. Another graduate, now working at GlobalFoundries full-time, has invented a microchip-powered device that airports may distribute to the elderly or those with known illnesses. In an article published in *The National*, Khaled Al Shamlan, ATIC's executive director of strategy and operations, observed that "the drive of the young talent in the Al Nokhba program, their hard work and active engagement in the learning process, as well as the genius displayed by those who have gone on to innovate after graduation, is the exact embodiment of what we hope to achieve through our human capital program."

Al Nokhba is only one of ATIC's many human development programs. To increase the pool of students studying science at the undergraduate and graduate levels, ATIC introduced Techquest in 2012. This program targets eighth- and ninth-grade Emirati students and is designed to expose them to potential careers in science and technology. "Our program presents a remarkable opportunity to spark an interest in science amongst this nation's future technology leaders," Hanan Harhara, manager of human capital at ATIC, noted in a press release. "We are presenting a snapshot of the different subjects and career options related to

[science, technology, engineering and math] through insightful lectures, hands-on workshops, collaborative group activities and fun field trips.”

The outreach and promotion of science continues for students at the high school level. Working with ADEC and the American University of Sharjah, ATIC runs the “Summer of Semiconductors” program for ninth through twelfth grade students. This program exposes the students to modern applications of science and technology through lectures, workshops, group activities and field trips. Students in the ninth and tenth grades choose between studying the uses of and production processes for semiconductors or building a robot in preparation for the World Robotics Olympiad. Eleventh and twelfth grade students choose between a focus on microelectronics, such as semiconductors, and a multidisciplinary course covering a range of fields, including microelectronics, robotics and gaming.

At the post-secondary level, in addition to the Al Nokhba scholarship program, ATIC has spearheaded a vocational program at the Abu Dhabi Polytechnic Institute that offers students with a secondary school degree a chance to obtain a higher diploma in semiconductor technology. The company has also teamed with the Masdar Institute in Abu Dhabi to create a master’s in microsystems degree program. As part of this program, ATIC plans to build a small “clean room” to give degree students and researchers exposure to the environment in which semiconductors are produced.

The Role of Women at ATIC

ATIC has also made substantial investments in developing its staff of female employees. Involving qualified women in previously male-dominated divisions, such as finance and technology, is the first step in creating a more equal work environment. As a result of this supportive work environment, many female employees report high job satisfaction and view opportunities at government-owned enterprises such as ATIC as a way to fulfill their responsibilities as citizens of the UAE.

The move to support female professionals reflects the UAE’s broader support for women. In an interview, the late Sheikh Zayed noted: “If we lose our female

population, we lose half our economy.” The UAE constitution stipulates that women are equal to men in all facets of professional life. In addition, the UAE Federal Labor Law has an equal pay clause, stating “a woman shall be paid the same wage as a man if she performs the same work.” The desire to create a more cohesive society, diversify household incomes and promote women’s involvement led Abu Dhabi’s Economic Vision 2030, a long-term roadmap for economic development in the emirate, to emphasize the role of women. The Vision affirms that “the government wishes to maximize participation of women in the workplace.” Women are also being integrated into political life through appointments to the Federal National Council — a gradual process intended to allow society to adjust to the presence of female politicians. Of the 40 current council members, eight are women.

While female employees at ATIC admit to facing occasional gender bias and negative societal pressure, many of them agree that firm and government policies have been supportive of their efforts. However, they do see a need for society to change its mentality, and they understand it may take generations for this to happen. Their ability to focus on the larger, long-term goal for Abu Dhabi and the government’s tangible actions has allowed them to channel their frustrations into hope and optimism for a better future.

Looking Forward

The outcome of Abu Dhabi’s investment in the global semiconductor industry and in the development of local human capital is unclear. In a 2012 filing, Mubadala reported that ATIC and its main asset, GlobalFoundries, had an accumulated deficit of US\$1.12 billion at the end of 2011 and also had losses in the previous two years. In addition, the government-investment company could not guarantee that ATIC would be profitable in the near future.

While the government continues to invest in establishing a semiconductor-technology hub within the emirate, construction of the Abu Dhabi fabrication facility, originally set to open in 2015, has been postponed, reportedly due to the uncertain global economic outlook. At the same time, Ahmed Al Bloushi, senior

member of the R&D unit at ATIC, has reported that there is no rush to open the foundry. “We will wait until the time is right and the local population is ready to work in these jobs,” he said in an interview.

The announcement of the fabrication plant has also caused a geo-strategic stir. Given the importance of semiconductors to military and other strategic technologies, security analysts in the U.S. and elsewhere, who were interviewed for a *Fox News* story, have raised flags about the prospect of a large portion of the world’s supply being produced in the volatile Middle East.

Given these factors, it is impossible to say when or if Abu Dhabi’s vision of becoming an Arab Silicon Valley will be realized. However, it is clear that ATIC has already had an impact on life in and outside Abu

Dhabi. Worldwide, GlobalFoundries manufactures more than 17% of worldwide contract-manufacturing chips. At home, the company has begun to change mindsets, not only among Abu Dhabi’s youth through its outreach initiatives, but also among the company’s own employees. GlobalFoundries’ professional culture and aspirational goals have inspired its employees. “After working at ATIC, I could work anywhere,” said Marwa Abdul-Rahman, an Emirati associate in ATIC’s mergers and acquisitions department. “The experience here is unparalleled in the UAE.”

This article was written by Nettie Downs, Firas Kiyasseh and Levi Quaintance, members of the Lauder Class of 2014.

Latin America

Private Equity in Brazil: 'The Music Hasn't Stopped'

According to data provided by the Emerging Markets Private Equity Association (EMPEA), Brazil's PE industry in 2011 raised a record US\$7.1 billion, or 18% of the new capital committed to emerging markets. Of this total, it invested US\$2.5 billion across 47 companies. More than half the deals were in the energy, infrastructure and consumer sectors. This comes as no surprise, as Brazil has the largest consumer market in Latin America, worth US\$1.5 trillion in 2011. The country is more open to PE than ever before, with success stories covered in the local press, stronger capital markets and an increasingly institutionalized investor base.

Brazil's Economic Takeoff

Over the past decade Brazil has exceeded expectations, becoming a success story among emerging market economies. Per capita GDP rose from US\$2,812 in 2002 to US\$12,594 in 2011, growing 18% a year on average. In September 2012, Brazil's unemployment rate was at a near record low of 5.4%, compared to 7.8% in the U.S.

The Brazilian economy's success has translated into increased consumer spending in a variety of areas, ranging from basic goods to furniture and automobile sales. In addition, the government continues to invest money in offshore oil exploration. The country is currently home to the second largest infrastructure project in the world — the development of its offshore oil deposits in the Pré-Sal, which will bring in US\$270 billion in investments over the next 10 years and a huge demand for ancillary products and services. This project is expected to generate two million new jobs in an industry that currently has only 500,000 employees. Along the way, Brazil has attracted significant foreign capital, as investors seek to capitalize on the country's growing consumer segment and infrastructure needs.

Despite Brazil's relatively slow growth in the economy over the last two years, the consumer sector continues to see double-digit growth in the lower middle class.

Given the country's tumultuous history of government intervention, corruption and a bout of hyperinflation in the not-too-distant past, one must consider how the different administrations were involved with the marketplace and to what extent they have been responsible for Brazil's current status.

Most people agree that the foundations for the consumer sector's success were established during President Fernando Henrique Cardoso's administration. The economic stability resulting from the Plano real of 1994, which consisted of a series of contractionary fiscal and monetary policies and the creation of a new currency, dramatically reduced the levels of inflation inherited from the post-military dictatorship, allowing consumers to save and purchase on credit. Inflation is corrosive to society and severely affects the purchasing power of the lower class, which is heavily affected by increases in staple goods and which possesses limited assets. Once inflation was controlled, it became possible to invest in the growth of the emerging Brazilian consumer.

The administration of President Luis Inácio Lula da Silva, from 2003 to 2010, although initially feared by the marketplace for its radical rhetoric, was able to gain the trust of the private sector by maintaining market-friendly policies. Over the same period, Brazil managed

to increase its middle class from 26 million to more than 59 million, aided by social programs such as Bolsa Familia, which provided financial support to millions of underprivileged families throughout the country. New consumption patterns also developed, making Brazil one of the most coveted emerging markets.

Under the leadership of President Dilma Rousseff, investors are eager to see what new policies will be enacted. Although one should not expect major changes, due to the affinity between Lula and Rousseff, the current administration is under pressure to continue its predecessors' consumer growth. During the last 12 months, the SELIC target rate has shown a substantial decrease from 11.0% to 7.25%. Analysts expect that Rousseff will offer cheaper lines of credit to the lower-middle class, often referred to as "class C," a group that has long depended on credit provided by retailers. Euromonitor International research indicates that Brazil's annual lending rate averages 43.9%, compared to 14.1% in Argentina, 12.4% in Indonesia, 10.4% in India and 6.6% in China.

Government support for consumer financing can be seen in the recent interest rate cuts at Banco do Brasil and Caixa, the two largest state-owned banks in Brazil, and the extension of credit to less affluent individuals. Despite substantial government pressure on banks to reduce their lending rates, there is anecdotal evidence that some private banks are pushing back. Recent media reports estimate loan growth of 10% in 2012, down from the previous estimate of 14% to 17%. This may be a signal from the banks that management is trying to reduce future exposure to bad loans by avoiding higher-risk loans, or that the demand for loans remains lackluster. As of February 2012, 44% of the total credit in the financial system came from the public financial system, compared to only 34% in February 2008. Such trends are being observed keenly by investors interested in the region, as they plan their next moves in the consumer retail sector.

Private Equity, Brazilian Style

Over the past decade, the Brazilian PE sector has grown significantly, deploying over US\$22 billion of capital. Brazilian PE funds have played an important role in the economy, helping to professionalize family-owned

businesses, improve corporate governance and provide needed growth capital. According to a 2011 Knowledge@Wharton report on the Brazilian PE market, nearly one third of the companies listed on BOVESPA between 2004 and 2008 were PE-backed, helping to promote the development of the country's capital markets.

In 2011, Brazilian-focused funds raised a record US\$7.1 billion, significantly above the 2008 peak of US\$3.6 billion. Fundraising is concentrated, with the majority of capital invested with four firms: Gávea Investimentos, BTG Pactual, Vinci Capital and Patria Investimentos. As of September 2012, fundraising activity had slowed down, with only US\$1.7 billion raised for the year so far. Recent fundraising shows an increased focus on the infrastructure and energy sectors, with US\$1.4 billion raised for specialized funds from BTG Pactual, Mantiq Investimentos and Valora, among others.

Investment activity has accelerated, with US\$3.4 billion invested in the first three quarters of 2012 compared to US\$2.5 billion the previous year. In an interview with EMPEA, Piero Minardi, a partner at Gávea Investimentos, recently noted that they had "already deployed almost half of the \$1.9 billion fund" they raised in 2011. Anecdotally, although funds are aware of increased competition, several managers feel the sector is still underpenetrated, with 2011 deal flow representing less than 0.1% of GDP compared to 1.0% in the U.S. and 0.3% in India.

PE strategies have evolved significantly in Brazil. With a history of high inflation, dollar-denominated funds, prohibitive hedging costs and limited exit opportunities, the 1990s and early 2000s saw investments in companies with an export-oriented business model, where revenues would be in foreign currencies. In light of limited exit opportunities, investors had to think about "exit first," ensuring that the asset had multiple natural buyers. Minardi pointed out that, following the 1999 currency devaluation, "weak capital markets remained a big concern.... It was tough to go in front of an investment committee and say you felt secure in having an exit."

Interviews with local PE managers and consultants revealed three areas of focus for investment today: infrastructure, retail and healthcare. Chris Meyn, a partner at Gávea Investimentos, noted that "inadequate

infrastructure and education are the main constraints to Brazil's growth today. The country has high electricity and logistics costs. Only 10% of roads are paved, and the country faces increased infrastructure needs from industry and growing sectors, such as offshore oil." While some investors are attracted to the stable cash-flow base, a GP Investimentos representative commented that infrastructure and commodity deals often face lower target returns; they prefer "deals that give us exposure to the domestic Brazil" and are less dependent on what happens in China.

The other areas of focus — retail and healthcare — are targeted largely due to the attractive growth of the Brazilian consumer base. Retail sales are expected to grow from US\$289 billion in 2007 to US\$550 billion in 2012 (13.7% CAGR), and the healthcare segment is struggling to meet demand, with a tenfold increase in public healthcare expenditures since the government established the United Healthcare System in 1988. A Credit Suisse report highlighted that working-age adults (18-65) represent nearly two-thirds of the population, and the country's demographic dividend is not expected to peak until between 2020 and 2025. Low unemployment, wage growth and expansion of credit will continue to drive the development of the middle class.

Rise of the Middle Class

Patr ia Investimentos' investment in Alliar, a medical imaging company, and Carlyle's acquisition of Tok Stok, a furniture retailer, illustrate the continued interest in the rise of Brazil's middle class. According to data compiled by Bloomberg, 34 of 80 PE deals announced in 2011 were consumer-related. Fernando Borges, head of Carlyle's South American Buyout team, explained that their "focus will keep being companies related to consumption, rising income and the growing middle class."

Most of the Brazilian stock market remains tied to extractive industries. But there is still a large unmet demand from international investors to gain access to companies in the consumer sector that are better tied to Brazil's macroeconomic fundamentals. Consequently, PE funds continue to see consumer deals as a priority area for them in Brazil. These deals will allow investors to build companies that will have a natural and attractive exit potential through an IPO.

The positive environment for the consumer sector has brought significant additional competition in the form of new local PE firms, foreign investment groups and strategic acquirers who have greater confidence in the Brazil risk (Brazil has been investment-grade since 2008 and is now considered "BBB" by the major rating agencies). A GP Investimentos representative recognized that the fund had actively looked at a number of deals in the consumer space but decided not to move forward due to valuation expectations. Funds have to rely increasingly on their proprietary networks to source their transactions.

A fund manager, who asked to remain anonymous, commented that one of the most significant problems with Brazil today is not leverage per se, but rather the high interest rates and low durations of consumer loans. An increase in duration and a decrease in interest rates could easily see a doubling of the consumption power of the middle class. Bloomberg noted that in 2012, Rouseff had already taken multiple steps favoring consumption growth, such as cutting taxes on durable goods and pressuring banks to cut interest rates on credit cards.

The technology and e-commerce sectors have seen more interest from VC funds such as Redpoint e.Venture and Monashees, which have invested in online retailers such as baby.com.br and Sophia & Juliette. Industry experts predict Internet penetration will increase dramatically in the nation, and they forecast e-commerce growth of more than 30% per year. Most recently, there has been a flood of "tropicalization," the business of replicating online startups that have already succeeded in other markets. Examples include Peixe Urbano, a Groupon clone, and baby.com.br. Given the success of such ventures, it is likely that e-commerce will continue to attract significant investment from PE and VC backers.

In discussing the future of PE in the region, fund managers were lukewarm about Brazil's potential to serve as a platform for pan-Latin American investments. G avea Investimentos' representative stated that it was important to stick to the fund's strengths; there are still too many opportunities at home. Minardi noted that "many of us are still very busy looking at the south region of Brazil, which is perhaps another indicator that Brazil is not yet overheated. People do not have enough time to go to

other regions and look around because there is so much to be done locally.” The GP Investimentos representative commented that acquiring or partnering with a foreign company could be attractive, but “it is difficult because the differences in culture are quite large.” Family owners in Latin America are quite risk-averse and remember the deals where “a local investor from their country got burned investing in Brazil.”

Is Brazil Too Hot?

There are many challenges associated with the recent influx of foreign capital into the Brazilian market. As competition has increased among funds, the prices that companies are willing to pay have surged. The GP Investimentos representative stated that foreign players are now more willing to pay very high prices for such assets. In August 2012, General Mills closed the acquisition of Yoki Alimentos for approximately 20 times the last 12 months’ EBITDA. According to the GP Investimentos representative, investments from foreign markets allow local companies to take on debt and grow at much greater rates than they could on domestic credit lines alone. Such was the case with the 2012 sale of Fogo do Chão, a Brazilian steakhouse restaurant chain purchased by Boston-based Thomas H. Lee Partners.

The lack of infrastructure remains a primary concern among investors looking to develop businesses in the region, and could pose a potential risk to long-term projects that will require complex logistical operations. This has made infrastructure investment interesting to many PE funds. As mentioned by a PE specialist at Bain Consulting, there is great interest in the steady returns that can be made from energy projects, such as power plants and green energy. Some PE firms, such as Gávea Investimentos, have tackled these obstacles by investing in and building their own infrastructure for portfolio companies.

In 2010, Cosan SA Industria sold a US\$226 million stake to PE investors Gávea Investimentos and TPG Capital. The partnership gave birth to a collaboration among business and private investors looking to solve the company’s distribution problems. Together, they invested in a new rail system, replacing thousands of delivery trucks. In what could be an increasingly popular partnering, a company and its investors were

able to tackle infrastructure challenges in an innovative and expedient way by circumventing government inefficiency. Yet, privately partnered infrastructure deals notwithstanding, investors will continue to ask themselves whether the government will be able to effectively meet the larger and more inhibitive infrastructure needs of the growing markets.

With the recent attention Brazil has received from foreign investment, many potential investors wonder if the economy is overheating due to increased competition and heightened attention on the upcoming World Cup and Olympic games. Some are concerned about the country’s ability to develop independently without a direct link to Chinese demand; others are worried about the potential “Dutch Disease” of a strengthening currency due to commodity exports and a rise in cost of domestic manufactured goods. With the recent slowdown of Chinese growth, the demand for soy and iron ore is on the decline, warranting worry.

Still others remain cautious about the government’s ability to control inflation, estimated at 5.4% in 2012, above the government’s goal of 4.5%. High inflation, combined with high interest rates, have many concerned about Brazil’s consumer credit situation. This could prove to be a problem for consumer retailers and create unease for PE firms seeking to invest. Default rates on consumer loans reached 7.9% in August and were as high as 28% for credit card accounts at least 90 days overdue. While nearly 40 million Brazilians have entered the consumer middle class over the past five years, some investors, such as BlackRock’s Will Landers, do not believe this is sustainable and feel that a more realistic outlook over the next five years is closer to 25 million — still a healthy growth rate, but not nearly as large a boost to the economy as in the recent past.

The positive news is that the Brazilian government has shown its resolve to lessen the burden on heavily indebted consumers by lowering interest rates, lengthening terms of payment and extending consumer-related tax breaks. The key factors for investors to weigh will continue to be government intervention and global demand. For now, the government seems committed to lowering the costs of doing business and increasing logistical capacity.

In August 2012, Brazil's government announced a US\$66 billion stimulus blueprint to provide subsidized loans for improvements of road and rail systems. Plans to improve port and airport infrastructure are the country's next priority, although some state-run projects have already been planned, such as a nearly US\$3.2 billion project at the port of Itaqui in the state of Maranhão. But investments will take time, money, proper management and oversight by government officials. Over the long term, as Brazil continues to grow steadily, the consumer

retail sector will remain an attractive investment, but the path to high returns will depend ultimately on the Brazilian government's ability to manage resources, invest prudently and control consumer debt levels as domestic demand continues to grow.

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Entrepreneurship in Colombia: 'Try Fast, Learn Fast, Fail Cheap'

Colombia today is considered to be one of the world's great emerging economies. Its growing political stability, decrease in violence, young working population and overall positive economic trend make it a country with interesting prospects. Robert Ward, a global forecasting director for the Economist Intelligence Unit (EIU), categorizes upcoming developing nations into a group called CIVETS. All the countries included in this group — Colombia, Indonesia, Vietnam, Egypt, Turkey and South Africa — share several very important characteristics, including positive trends in political, social and economic aspects.

In 2011, a financially troubled year for the world, Colombia achieved a Gross Domestic Product (GDP) growth rate of 5.9%, becoming the 33rd largest economy in the world, according to the International Monetary Fund (IMF). For 2012, the Colombian government forecasts public debt to reach 25% of GDP, an enviable mark compared with many other indebted nations. In addition, the country is experiencing an investment rate of 28% of GDP, the highest level seen in the country in the last decade. In a world where some of the most powerful nations are facing grave challenges, this is a very good position for a country such as Colombia to be in.

While Colombians are proud of today's economic status, it was not an easy journey. Issues such as violence and economic inequality long hindered the nation's economic potential and affected the people's morale. For many years, Colombia placed great emphasis on overcoming these obstacles. According to the Ministry of Defense, the homicide rate in 2011 was the lowest it had been in 26 years, with the country experiencing a 12% drop from the previous year. This positive trend brought great optimism for what Colombia's future may hold. Where violence — headed by factions such as the Revolutionary Armed Forces of Colombia (FARC) — previously caused major safety issues and

distribution challenges and repelled investors, today the improvements are noticeable, and the Colombian government is promoting this change proactively in hopes of attracting international interest.

A second and related challenge for Colombia today is economic inequality. Colombia still ranks seventh among countries with the highest degree of economic inequality, but it is seeing a change for the better. The government's recent decisions to increase public savings, reduce the public deficit and invest in social programs have already resulted in improvements. According to Catalina Crane Arango, the Colombian high presidential counselor for public and private management, the purchasing power of minimum-wage workers has increased significantly over the last decade. In 2000, a minimum-wage worker had to work for 125 months to be able to afford a car; in 2012, a minimum-wage worker could afford a car after 57 months.

The lessening violence and reduction in economic inequality are among many developments driving the positive economic trend in Colombia and giving its citizens hope for a better future. As a result, the country is seeing a great expansion in its entrepreneurial environment. According to the most recent survey by GEM (Global Entrepreneurship Monitor), the

world's largest study of entrepreneurship, 20.6% of respondents in Colombia in 2011 reported they had started a company within the last three years. This figure compares to the average result of 11.8% from a selected group of peer countries. Now the Colombian government has the challenge of figuring out how to cultivate and maximize this entrepreneurial potential.

Entrepreneurship, and How the Government Drives It

In the report *Política de desarrollo empresarial: la "política industrial" de Colombia*, published in May 2011, Sergio Diaz-Granados Guida, a former Minister of Commerce, Industry and Tourism, says, "In the past, industrial policy in Colombia was based on artificial protection of selected sectors of the economy using methods such as high customs tariffs, import licensing, monopoly of the government on food product import, price control and others." This appears to have led to the creation of an arguably artificial and isolated entrepreneurial environment.

In the beginning of the 1990s, the Colombian government's role in driving entrepreneurship changed as the policy focus shifted toward helping small- and medium-size businesses, which were viewed as the nuclei of economic development for the country. This was the first time the government had used the term *política de desarrollo empresarial* (entrepreneurship development policy) to describe its new industrial policy.

Today, this policy has evolved into one that concentrates governmental efforts not on protecting businesses and industries, but rather on eliminating barriers for entrepreneurship development and on driving competition.

More recently, the Colombian government has concentrated its efforts on elaborating the appropriate legal framework and financial infrastructure to support new entrepreneurial activity in the country. One of the most important pieces of legislation on entrepreneurship was passed in 2006. Law 1014 aimed to promote entrepreneurship across different sectors of the economy. One of its initiatives was the creation of the national and regional network for entrepreneurship development.

In 2009, Law 1286 established the national system of science, technology and innovation, whose goal is to support high-technology high-impact entrepreneurship.

In addition to strategies and laws, the Colombian government has been looking at other methods for growing and supporting entrepreneurship. In 2002, the government launched *Fondo Emprender*, a seed capital fund that specializes in financing the companies that were formed within SENA (Servicio Nacional de Aprendizaje), an educational entity responsible for promoting entrepreneurship among students. Institutions such as this focus primarily on providing financial and infrastructural support to specific entrepreneurial projects. Together with the national system of creation and incubation, this network has established more than 20 business incubators across the country, which in turn have helped to launch more than 1,500 start-up companies since 2003.

Faced with growing entrepreneurial activity and need, the Colombian government has had to find a more effective and wider-reaching plan. According to Sergio Zuluaga, director of entrepreneurship and innovation in the Ministry of Commerce, Industry and Tourism — responsible for promoting entrepreneurship in the country — the government recently decided to change its approach, choosing one where it takes into account the entrepreneurship ecosystem as a whole, focusing both on the different types of new business and on the institutions that are part of this ecosystem. "Colombia has a lot of types of entrepreneurs and institutions, and we need to develop precise and tailor-made instruments, strategies and policies for each one of them," Zuluaga stated.

The new approach does not stand alone; it is supported by the national entrepreneurship policy of 2009 and, subsequently, by the national development plan of 2010-2014. According to *Política de Emprendimiento 2009*, the main goal of the new policies is to resolve what have been identified as today's key challenges for the Colombian entrepreneurial environment. These challenges include an informality of entrepreneurial ventures, time-consuming and costly registration and liquidation procedures, difficult access to

financing, market-entry limits, limited access to high-end technology, intellectual-rights protection, low levels of innovation, a lack of communication and articulation among institutions and a low level of overall entrepreneurial competence — a long and daunting list for the government to work through.

In an effort to resolve these challenges, Zuluaga indicated that the Colombian government intends to structure its efforts on the basis of four strategic principles: First is to apply a differential approach; as Zuluaga put it, “every type of entrepreneur and support institution needs a specific solution, and we need to work side by side with them to design and implement effective policies.” Second is to create and support instruments and programs that facilitate the “go-to-market” part of the entrepreneurship process. Third is to promote easy access to financing for entrepreneurs and new businesses (such as venture capital funds, a network of investors and micro-financing). Fourth is to establish and help maintain communication among all institutions responsible for entrepreneurship development within the ecosystem.

These principles are inspired by what Zuluaga and others in the Colombian government like to call the “Try Fast, Learn Fast, Fail Cheap” model — a model the government hopes will help Colombia’s existing and aspiring entrepreneurs. The government also plans to carry out a variety of programs that deal with nonfinancial industries, such as a national competition for entrepreneurs; tutorship programs; support for businesses that incorporate science, tech and innovation; a national system of business incubators; techno parks and innovation programs.

Clearly the government has set some bold objectives in hopes of growing the entrepreneurial presence in Colombia. But the long list of plans makes some observers question whether the government will be able to execute these plans effectively and, indeed, whether these plans meet Colombian entrepreneurs’ most pressing needs.

Looking to the Future

By creating a system of special incentives and support for establishing new businesses, the Colombian government

has achieved successes in making the country a place where entrepreneurs and their businesses see positive prospects. However, challenges still exist. In order to harness and grow the existing entrepreneurial environment, the government needs to select where it focuses its efforts and determine how to do so carefully and effectively.

In its attempt to drive entrepreneurship, the Colombian government faces the challenge of dealing with large numbers of fundamentally different types of entrepreneurs. Some are driven by necessity, such as the unemployed impoverished people who sell juice on the street corners. Others are driven by opportunity or motivation, typically educated people with access to at least the basic necessities of life. According to the GEM survey, in Colombia, for each entrepreneur driven to launch out of necessity, 1.49 do so because they see an opportunity. This ratio is lower than the average indicator for efficiency-driven economies (including Colombia), where the number of opportunity-driven entrepreneurs is almost double that of necessity-driven entrepreneurs. Government policy must recognize the different needs and goals of these two groups. “The government applies a differential focus and elaborates specific strategies to approach opportunity and necessity entrepreneurs differently,” says Zuluaga.

The initiatives created by the Colombian government are solid first steps toward building an environment conducive to entrepreneurship. However, until now, not all entrepreneurs have felt positive about governmental policies and plans. According to the GEM survey, even though people recognize the government’s recent efforts, they explicitly stated that policies are still not clear or communicated sufficiently. Alejandro Venegas, co-founder of an online financial services company in Colombia, pointed out that although he has heard that government programs exist to support entrepreneurs, he has no information about them or how to access them.

This sentiment seems to be a common theme among entrepreneurs. The GEM survey also indicated that current tax policies and interest rates were not beneficial for starting a company, and that the delay and inefficiency of bureaucratic procedures in government

departments is an impediment to the start-up process. Angela Maria Yepes Ruiz, a Colombian business owner, commented that government processes and taxation in general are extremely difficult for starting businesses in Colombia. In addition, none of the dimensions rated by the survey were rated as “outstanding,” demonstrating the need for improvement in a diverse range of areas such as education, financing, intellectual property rights, infrastructure, interest in innovation and support for women in business.

Colombian entrepreneurs continue to face daunting challenges: difficulty in accessing information about specific support programs offered by the government or a lack of such information; the still-high importance of personal contacts required to make things happen, and the underdeveloped financial markets, including the lack of accessible venture capital funds and seed financing and the low activity of international start-up financing funds.

According to the GEM survey, nearly half of Colombian entrepreneurs finance their businesses through family members. All the entrepreneurs interviewed for this article stated that issues of raising capital and financing were among the key challenges they faced in starting a business. As Venegas noted, “in Colombia, you have to

be well-connected so that the right doors open. The laws here [in Colombia] are changing a lot for the good, but there are still certain things the government needs to change to make the online start-up process easier.”

Meanwhile, the entrepreneurial desire is alive and well. In the GEM survey, 88.6% of Colombian respondents noted that entrepreneurship is an enviable career, versus 72.8% of those from the peer countries. It is simple: Colombians want to be entrepreneurs. The economic conditions are looking good, and people are feeling positive: 68.1% in Colombia said they believe there will be better conditions for business within the next six months. And the government is making a strong effort to establish the right laws and programs to help entrepreneurs. If the conditions continue to improve, Colombia will transition from being a country once known for its violence, economic disparity and large cocoa industry to one known for a flourishing entrepreneurial environment filled with impressive opportunities.

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Education in Brazil: Can the Public Sector Keep Up with the Emerging Middle Class?

How much can Brazil grow? For any economist studying the country, this is the key question. Brazil has demography on its side, but how does this booming economy remain on its growth path and continue to bring more Brazilians into the nova classe media (emerging middle class)?

Take the case of Pedro. He was born in 2004 in Carajas, a rural city in northern Brazil. Close to four million of his peers are not in school, but he is part of the 91.5% of those ages four to 17 who are. Unfortunately, by third grade, only 34.2% of his class will have attained the expected grade-level skills in math and language. By ninth grade, only 26.2% will have mastered the expected level in language and only 14.2% in math. In actuality, there is just a 50/50 chance that Pedro will even graduate from high school. Will he ever be part of the 69% of adults who are functionally literate?

The lack of qualified workers, whose ranks Pedro is likely to join, is nothing new in Brazil. It has three principal impacts on the country's economy: the attraction of foreign human capital, unnecessary salary inflation and under-qualified managers. According to BRAiN's (Brazil Investments and Business) publication, *Talent and Human Capital for the Brazilian Investment and Business Hub*, the shortage of qualified personnel in Brazil is affecting inflation. For 2010, the research cites a 10.4% increase in the cost of labor and a 36.0% increase in the compensation paid to company directors over the previous year.

These conditions make it possible for Brazil to take short-term advantage of current opportunities, including the demographic bonus and economic growth. However, the country requires a long-term solution that could

come from within. To accomplish this, it is essential to educate the country's young population properly and prepare them for the labor market. This is not an easy task, given the current state of education, the growing population and the increasing immediate demand for quality education from the emerging middle class. What opportunities are available to Brazil in the short and medium term? How can the country best harness its demographic bonus, and what business opportunities does the education sector currently offer?

The Nonprofits Step In

Considering the reality of education in Brazil, nongovernmental organizations have thrived and are making an active effort to change the perspectives of some Brazilian students. A genuine interest in making a difference is a strong driver for all of these NGOs, and they have impacted the lives of many students in a positive way.

For example, since 1999, iSmart has been selecting some of the best students to attend private schools where they have the opportunity to receive a quality education. The results are outstanding, with 80% of these students being admitted into institutions of higher education. However, iSmart and similar organizations share constraints when it comes to expanding their models. Invest, an NGO based in Rio de Janeiro, has remained the same size for 15 years, and the current staff agrees that, among many

possible explanations, the lack of a business-management perspective is one of the most important impediments.

Furthermore, these organizations face bureaucratic barriers that stall or prevent their growth. This is the case with Teach For All in Brazil, where the organization had to go through several time-consuming processes in order to set up a model that, due to legal constraints, does not resemble the model established in other parts of the world as closely as the founders had desired.

Despite a number of positive results these organizations have seen, the reality is that they have difficulty scaling or generating the level of impact the country requires.

When analyzing different possible approaches for transforming education in Brazil, three specific and easily scalable options should be considered: public-private partnerships, technology implementation and for-profit initiatives.

Is Privatization an Option?

Privatization might provide a quick fix to the country's inefficiency when it comes to delivering on the promise of education. Often heralded as a solution to the failure of the public school system, the charter school model is interesting to analyze. Although government-funded, charter schools are run independently and, theoretically, with greater efficiency by a private board and management team. When this model is proposed to education experts in Brazil, the collective reaction is that it is bound to lead to greater inequality. At the same time, others doubt that the model itself is a success. Andrea Bergamaschi, general coordinator of Todos Pela Educação — an NGO focused on the quality of education in public schools that closely works with the government — is adamant that “the charter school model is not yet proven.”

An explanation for this can be found in Chile's experience in implementing charter schools. The pilot program there proved to be biased and only accentuated the inequality between urban schools, where the model was profitable, and rural ones. Beyond the caveats of proper allocation, education observers have little confidence in the Brazilian government's ability to control and demand accountability for the results of

the charter model. Brazil's excessive bureaucracy, lack of qualified public employees and poor track record in public-private partnership management (e.g., in the healthcare system) explain this reluctance.

Recognizing the success of the model in some cases, Denis Mizne, director of Fundação Lemann, a nonprofit organization that works to improve the quality of public education in Brazil, suggested experimenting with a charter-type model in early childhood education, “where there is huge demand and the state is unable to correctly deliver.” He pointed out that charter schools could build and complete the new structure of education in Brazil.

If the charter-school model is to succeed, Brazil must address the concerns that have arisen and work on improving the framework to ensure that the risks are allocated efficiently between the private and public sectors. Incentives must be integrated to assure that the private sector targets both the richest and the poorest areas of the country. Finally, it is essential that performance indicators be designed and reported properly to control the performance of the private sector.

Technology in the Spotlight

The use of technology in the classroom has been implemented in different parts of the world. Brazil is moving toward this scalable solution, with an eye toward improving the quality of education on two fronts: better-managed schools and innovative systems for student instruction.

One relevant factor is the quality of school management. The use of technology in this area is still in the experimental stage in Brazil, but improvement is expected when it comes to helping teachers spend less time on paperwork and grading exams, and more time preparing or teaching classes, observers suggest.

Another important factor is the classroom dynamic. Traditional models are being challenged by innovative systems. Different technological platforms are working to create alternative ways of learning and can help keep track of students' advancement. These new systems are encouraging a blended learning method where the traditional and the technological classroom experiences can co-exist and generate mutually positive relations.

Many interesting efforts are evolving in Brazil on the student-learning front. Co-founded by Claudia Massei, QMagico is an education-technology company that provides videos and interactive exercises covering academic content. In addition, Fundação Lemann started translating and has implemented a well-known online platform, Khan Academy, for some Brazilian schools as a pilot for technology-based learning and tracking systems.

When discussing the use of experiments and innovative approaches to enhance education, Mizne mentioned that Brazil has some of the same problems other countries have faced in the past, meaning it can leverage the research, testing and learning being done worldwide. In addition, technology is one of the most easily scalable innovations.

The use of technology is still in its experimental stages, but results to date are positive and there is hope it can actually be one of the main drivers of educational change in the coming years.

For-profit Initiatives

Gera, a venture capital fund based in Rio de Janeiro, offers its own perspective on the opportunities available in the area of education in Brazil. Established in 2010 with the goal of becoming Brazil's leading private investor in education, the fund has made three investments to date, totaling R\$60 million (US\$28.8 million). The largest is in a network of model schools for children between the ages of 8 and 12 in the Rio de Janeiro region. Targeting the emerging middle class, Gera has helped to expand the model to 14 schools serving 9,000 students and has provided the capital and business acumen to scale the original concept. For this fund, investing in education can offer competitive financial returns as well as impact the educational system in Brazil.

Founder and managing partner Duda Falcão, a former McKinsey consultant and private-equity banker at UBS Pactual, decided to found Gera after recognizing that education “is the only way to change the country.” She maintains that an inefficient educational system will be the principal factor in preventing Brazil from reaching its full potential.

This field is also a great opportunity for financial return. With an acute shortage of talent, few good ideas are executed properly. Falcão suggests that there are incredible opportunities to develop a scalable model that provides quality education. She insists that these opportunities are not revolutionary; they differ because they provide something the government does not: “They teach students to read, write and dream.” With a culture of performance and the motto that money attracts talent, Gera's stated goal is to be a transformative force for Brazilian youth.

Yet Falcão does not believe that the private sector alone can fix the problem. Rather, the private and public sectors each have collaborative roles to play. While Gera believes the private sector in Brazil will eventually dominate higher and nontraditional (prep courses, English language, 21st-century skills) areas of education the same way it does in some other parts of the world, the government will remain the driving force in the 8-to-12-year-old segment.

Gera aims to scale the model from 9,000 students up to 100,000 students — barely a dent in a country with 50 million children. Scaling private-sector initiatives is not the ultimate solution, but these for-profit models can provide a design the government can then follow to offer a solid education at a low cost. Gera believes the private and public sectors will work together and develop many synergies. The government has already begun to move in this direction, but the challenge remains enormous. For Falcão, this is a “20-to-30-year play.”

This time frame may be too long for the emerging middle class — where the opportunity for savvy investors lies. Gera has understood that the middle class now has the ability and willingness to pay for quality education. According to official data from the Secretary of Strategic Affairs of the Presidency of Brazil, the country's middle class currently numbers 95 million, or about half the population. To serve this gap, Gera is building an expertise at pairing innovative business solutions with qualified entrepreneurs. This bottom-up approach has been facilitated in the last few years as more and more qualified college graduates are looking past mature industries to focus on exciting ventures that can contribute to the country's improvement.

Capital and opportunities are not the hurdles today. Falcão insists that the greatest challenge is recruiting the professional investors who naturally see the opportunity and who combine business expertise with a passion for education in Brazil. Gera and its investors are gearing up for the next round of funds, in the range of R\$100 million to R\$150 million.

The solution to enhancing Brazil's education system is a very complex issue that depends on many variables. The public and private sectors must work together on a long-term solution, according to most education observers. The former must improve its management efficiency, reduce bureaucracy and work on giving the latter a suitable playing field to invest in education and

put in place mechanisms to control the private initiative effectively. To that end, the private sector has to take advantage of this investment opportunity. However, it must do so while understanding the country's problems and coordinating its efforts with the public sector. Both sectors should allocate the risks to the party that is in a position to better manage them and come up with the most beneficial action plan — a plan that will give Brazil the level of education it needs so it can grow and offer its people a better standard of living.

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Tourism in Colombia: Breaking the Spell of Negative Publicity

Negative perceptions die hard. The February 2012 U.S. Department of State, Bureau of Consular Affairs' travel warning for Mexico began this way: "Millions of U.S. citizens safely visit Mexico each year for study, tourism and business, including more than 150,000 who cross the border every day."

In contrast, the analogous warning for Colombia was: "The Department of State reminds U.S. citizens of the dangers of travel to Colombia." Consider that in 2009, there was one intentional homicide per 100,000 in Mexico, and just 0.5 in Colombia, according to the United Nations' "Global Study on Homicide 2011." In 2011, there were 1,327 kidnappings in Mexico, compared with 298 in Colombia, according to InSightCrime.org and a January 2012 *El Espectador* article. This equates to a 75% higher per capita kidnapping rate in Mexico. Colombia's immense economic potential is still held back by a now-inaccurate image of terrorism and violence.

The greater Colombian economy — specifically its tourism industry — is the best positioned of any in Latin America to expand steadily in the coming decades. Its breadth of geographic, natural resource and labor diversity positions it advantageously. However, it has failed over the last decade to capitalize on this advantage through poor brand management, a misunderstanding of the importance of its international perception and a number of larger, strategic infrastructural challenges. Other Latin American countries, even some with violent histories, have better managed these challenges. Colombia can still transform itself into the premier tourism destination at the center of the Americas.

While the rest of Latin America has witnessed political and economic turmoil over the last decade, Colombia has excelled. Overall, Latin American GDP is forecast to

grow at 4.1% in 2012, according to the Organisation for Economic Co-ordination and Development (OECD). However, *The Economist* and the Colombian government expect Colombia to surpass that average with 4.7% growth in GDP.

A Geographic Richness

The country's borders alone outline a geographic richness that is nearly unparalleled in the region. Multiple mountain ranges rise and fall across Colombia, including the massive Andes. In between are wetlands, forests, jungles (including part of the Amazon), voluminous rivers and plains filled with fertile volcanic soil. Colombia has the distinction of being lined to the north and west by more than 3,200 kilometers of coastline that is almost evenly divided between the Gulf of Mexico and the Pacific Ocean, and provides paradisiacal beaches. This terrestrial and aquatic diversity allows the country to host the second greatest number of individual animal species on the planet. Furthermore, it is ideally located at the midpoint of the North and South American continents, putting the tropical resort of Cartagena just over two hours by air from Miami, and Bogotá under five hours from Mexico City.

Colombia's most valuable resource may be its labor force. International businesspeople and nongovernmental organizations routinely describe its workforce as among the most dedicated, productive and trustworthy in the Americas. Universidad de los Andes Professor Connie

Cárdenas de Santamaría noted that “Colombians — both men and women — are outstanding workers.... They believe in the power of personal effort as the road to success, and they are ... very reliable.” The World Bank ranks Colombia third in Latin America for “ease of doing business” (with labor quality being a key factor in that metric), only slightly behind Chile and Peru.

Despite these tremendous advantages, Colombia is known internationally for its violent history of narcoterrorism. Beginning with *La Violencia*, a period of intense political violence from 1948 to 1958, a legacy of official and unofficial warfare through the 1970s provided fertile social conditions for the most significant cocaine industry in the world. Colombia’s coca crop became the mainstay of the country’s agricultural industry, growing alongside a constant and violent tug-of-war between political parties. The paramilitary forces of each political interest found allies and revenues from powerful, competing narcotics cartels that used the forces as hired guns. As happened in many other Latin American neighbors, the conflict raged for decades, and international media coverage ensured that Colombia’s global image was consumed by that conflict. However, the political and narcoterrorism violence has subsided significantly over the past decade and a half. The early 2000s saw 70 murders per 100,000 people. By 2010, the number had fallen by more than half, to 30 per 100,000, according to the UN.

The Competition

Colombia is not the only Latin American nation to face a challenging history of violence while attempting to build its tourism industry. Costa Rica, which experienced its own period of violent civil war in 1948, was flanked by the political conflicts in El Salvador, Nicaragua, Guatemala and Honduras through the 1980s, which significantly prevented economic (particularly tourism) development in the country. Costa Rica — with competitive advantages that, like Colombia, include both Pacific and Caribbean coastlines, 5% of the planet’s biodiversity and extensive national parks — began to market itself as the eco-tourism capital of the world. By 1987, tourism began to boom and quickly became the largest generator of foreign income. Today, the country annually attracts some two million visitors

who spend nearly US\$2 billion. It remains one of the most competitive tourist industries in Latin America, but expansion may have reached its peak due to infrastructure limitations that are creating opportunities for regional competitors.

One such competitor is Peru, another country that has worked to overcome a negative image and shares many similarities with Colombia. Until the early 1990s, Peru was plagued by the rampant atrocities of the Sendero Luminoso (Shining Path guerilla army) but managed to harness its cultural and historic indigenous roots to build a unique brand that is the foundation of its tourism industry. According to Javier Game B., chief of operations for the Bogotá office of the Inter-American Development Bank, “Peru has done an impressive job of developing and marketing travel packages that appeal to a wide range of tastes and interests. You can mix and match everything from beaches to rainforest, from fine dining to ancient ruins. Colombia is still working to develop the right packages that fully display the variety of experiences the country has to offer.”

By way of comparison, the travel and indirect economy accounts for 14% and 7.4% of GDP in Costa Rica and Peru, respectively, compared to only 5.3% in Colombia. In contrast to their successful tourism models, and despite Colombia’s obvious resource advantages, the latter languishes in both absolute and relative terms. Tourism may not be a stated main objective of the Colombian government’s economic development plan, but it should be a priority, given the potential benefits for relatively little effort. Bringing its tourism percentage of GDP composition in line with that of its neighbor Peru, for example, would represent an additional US\$7.7 billion for its economy.

Once the Colombian public and private sectors (or any parties interested in developing the native tourism industry) decide to commit to increased tourism, the first and most important step is relatively simple: realizing that violence in Colombia is no longer a problem. Rather, a worldwide perception of Colombia as being perpetually mired in violence prevents an evolution in the sector. If this resource-rich, well-located, mountain-Pacific-Caribbean paradise wants to draw the international capital influx of which it is capable, it must

communicate the fact that it is one of the safest and most diverse destinations in 2012 and make potential travelers positively perceive that fact.

Beginning in 2007, Colombia launched the tourism slogan, “Colombia: The Only Risk Is Wanting to Stay.” According to Maria Claudia Lacouture, the president of ProExport Colombia, the slogan was launched “to address the lack of knowledge about the country and the questions that arose about the risks of visiting Colombia.” While this marketing strategy was executed in the spirit of confronting the major impediment to the industry, it was a gamble that was unlikely to be beneficial and certainly would not aggressively direct the attention of potential foreign visitors to Colombia’s true assets. According to Robert Fletcher, a professor at the University of Peace in Costa Rica, the campaign was designed to “encourage potential visitors to feel that they are at once both safe and at risk, a dynamic ... central to the general success of adventure tourism, a market segment that Colombia appears quite eager to tap.” ProExport, the quasi-governmental marketing body charged with promoting Colombia, whether intentionally or not, most likely was “paradoxically” trying to show potential tourists the upside of Colombia while simultaneously attempting to give them a “thrill rush” of visiting a “dangerous” place. According to ProExport, the “Only Risk” campaign is already being phased out.

In addition, the Colombian government is attempting to combat negative, official, foreign government or organization classifications. As noted at the beginning of this article, probably the most salient examples are the U.S. State Department’s official consular travel warnings, which are typically updated yearly. Not only do these warnings serve as a primary source of advice for travelers who consult the department prior to planning a trip or visiting a country, but, more significantly, they have a massive “ripple effect” on the entire international travel industry and any other industry that is dependent on it. This can be seen when travellers purchase airfare through many of the major online travel agencies, which provide the warnings to enhance their customer-service experience (i.e., to give the impression that even a low-cost travel website is providing a comprehensive customer-service experience.)

Thus, Colombia is the recipient of negative advertising every time someone starts planning a trip there.

This is despite the statistical realities on violence and kidnapping comparing Colombia to Mexico, a country whose tourism and indirect economy was worth US\$120 billion in 2010 (or 12.7% of GDP), compared to Colombia’s US\$12.4 billion (or 5.3% of GDP). Given Colombia’s consistently loyal diplomatic relationship with the U.S. since at least 2002 under then-President Alvaro Uribe and his proactive ambassador to the U.S., some observers wonder how Colombia continues to be cast in a negative light by the State Department.

Fundamental Challenges

Colombia has acquiesced and cooperated on drug eradication and military-to-military cooperation programs, and the two nations recently ratified the U.S.-Colombia Free Trade Agreement. Some observers suggest that the Colombian government, with the backing of a coalition of affected national and U.S. businesses, should lobby the U.S. government aggressively to correct its classification.

Three additional, more fundamental challenges confront the successful development of the Colombian tourism sector. These challenges represent an uphill battle for the entire economy and, as such, will require much greater long-term efforts by a broader coalition of public and private interests.

The ubiquitous excuse every pro-Colombian development optimist hears when proposing any type of project is “lack of infrastructure.” The country is, indeed, plagued by a remarkably underdeveloped or permanently stunted infrastructure across a number of areas. Most glaring is the mass transportation system. No highway system connects the major cities and regions of the country. Railroads are rare, and those that exist are incompatible from one span to the next. The two main transportation arteries have been so neglected that they are now impassible despite their impressive potential. One U.S. diplomat, recently transferred from Southeast Asia, quipped that it took four weeks for his household goods to arrive in the country by ship, but it took four months for the same shipment to arrive in Bogotá from Cartagena.

The tourism sector, like any other infrastructure-dependent industry, will reach an artificially imposed maximum when hotels cannot ship in sufficient supplies, food, building materials, etc., to keep up with the increased number of visitors. Entrepreneurial bio-tourism and adventure operators will be without guests when there are no connecting flights from Bogotá because there is an insufficient number of airports around the country. Despite widespread awareness of this problem, even the most astute and accomplished researchers on Colombian macroeconomics are unable to explain why the country historically has been unable to overcome these infrastructure challenges.

The second hurdle concerns the Colombian workforce. While considered among the most productive in the region, it lacks the necessary tools to cater effectively to a growing tourism industry. The young professional and working classes, while motivated and generally well-educated, are not being given the technical skills required to run the transportation modes, customer-service counters, hotels and attractions that will be critical to tourism expansion. For example, it is extremely difficult to find a taxi driver who speaks even a few words of English in the capital city of Bogotá. The country has just opened its first hotel training school and will need to make major adjustments to its technical training plan if it hopes to continue to expand its economy as a regional leader.

‘New Kid on the Block’

Finally, Colombia, like many other developing economies around the world, was severely impacted by the global economic downturn of the last five years. This difficulty is compounded for a sector such as tourism, which feels an exceedingly high elasticity of demand for a “luxury” good. As the global economy recovers and foreigners begin spending more disposable income on travel, Colombia will have an opportunity to be the “new kid on the block” if it positions itself well in the near term.

The two main entities in Colombia responsible for tourism promotion and development — ProExport (charged with marketing and promotion) and the Vice Ministry of Commerce for Tourism (responsible for policy and execution of tourism initiatives) — are

already aware of most of these challenges and are taking steps to overcome them. ProExport, as noted, is preparing to replace the ineffective “Only Risk” campaign.

One extremely encouraging example of cutting-edge policy management exists within the vice minister for tourism’s office, where the departments within Colombia previously were arbitrarily given sums of money to support their own local tourism industries. This sometimes resulted in small, remote departmental governments — with no history of, or plans to develop, tourism industries — having disproportionately large budgets to disperse as they saw fit. Today, the vice minister displays in her office a detailed funding matrix that represents every department’s tourism development proposals. The proposals are competitive and must be well-developed and presented to the vice ministry to gain a single peso. Smaller, less-developed departments that are eager and capable of developing their industries — but lack the resources to make competitive presentations — can request assistance from the vice minister’s office to develop their submissions.

Colombia is a country of majestic and diverse landscapes, framed by an equally impressive dual coastline. Its natural resources are second only to its human capital. The country’s uniqueness promises unbounded potential in many sectors, as illustrated by the “buzz” of attention it has received over the last five years. Colombia’s overall economic picture, while not perfect, is primed for steady, strong expansion in the coming years. With all the attention from international investors, tourism could serve as a flagship in that direction, while providing increased domestically generated capital and foreign direct investment to further promote and bolster overall economic development. With careful brand management and wise policy formation and execution, the Colombian tourism industry should become the prologue to the most exciting economic development story of 21st century South America.

This article was written by Campbell Marshall, Alan Mangels and Dalton Wright, members of the Lauder Class of 2014.



The Private Equity Landscape in Colombia

A decade ago, Colombia was struggling with political and social instability, a weak economy and widespread violence. With foreign direct investment (FDI) hovering around US\$2 billion from 1999 until 2003, it was clear that the international financial community was not looking at the country as a favorable place in which to invest capital. However, with the election of President Álvaro Uribe in 2002, Colombia began to resolve the issues of violence and national security and lay the foundation for the economic boom experienced over the last 10 years.

While in office, Uribe worked hard to change the international community's negative perception of Colombia by dramatically reducing violence and attacking the country's narco-trafficking problem. Where Colombia once led South and Central America in homicides per capita in 2002, recent United Nations (UN) statistics indicate a reduction of more than 50%. From an economic perspective, the country has also experienced explosive growth. Since 2002, Gross Domestic Product (GDP) has increased threefold, Gross National Income (GNI) has nearly tripled and FDI has grown sixfold.

At the same time, Colombia has also put in place the regulatory framework to help a formerly fledgling private equity (PE) industry become one of the most exciting industries in the region. According to Bancoldex Capital, 17 PE funds were raised in 2010, compared to only two funds just five years earlier. While challenges certainly lie ahead for the PE industry in Colombia, future prospects seem much brighter than they did just 10 years ago.

Colombia's First Private Equity Investment Cycle

Before Uribe's efforts to improve the country's economic and political stability, the PE industry was negligible

in Colombia. As Hernán Cely of Advent International commented, "The period from 1997 through 2006 composed a lost decade for private equity in Colombia. International crises and domestic security issues hindered any private equity development." Prior to 2005, there were no government regulations regarding the establishment of PE firms, the legal structures needed to form them or protections for minority shareholder interests required for structuring non-controlling equity investments.

Passed in 2005, Decree 964, among other things, established minority shareholder rights and created a framework for transparency that specified appropriate board-member composition, required the formation of audit committees and mandated the timely disclosure of financial information, according to the *Latin American Law & Business Report*. These changes put corporate governance practices in Colombia on par with international standards, enhancing the country's credibility with investors, and essentially made traditional PE investments possible.

Despite all this, only a handful of parties were contemplating PE investments in Colombia at this time, according to *Euromoney* — namely, local search funds, high-net-worth families and international players such as AIG, Darby, Newbridge Capital and The Carlyle

Group. It is important to note that since 2006, two local PE firms, Tribeca Partners and Altra Investments, raised their respective first funds and attracted the attention of other regional PE firms, such as Southern Cross Latin America, Linzor Capital, Mesoamérica and SEAF, which have been very active. Despite the momentum in the PE market in Colombia at that time, only a few deals were closed and not many details were made public.

A key piece of legislation in 2007 marked a major milestone for the PE industry in Colombia. Decree 2175 legally defined PE firms (*Fondos de Capital Privado* or *FCPs*) as closed-end funds that are, according to *Euromonitor*, “(i) created for the purpose of raising and managing cash or other assets; (ii) composed of contributions by more than one investor, each with a contribution of at least \$150,000; and (iii) composed of funds which are collectively managed and whose profits are distributed pro-rata among the contributors.” More importantly, this decree allowed Colombian pension funds to invest up to 5% of their assets in local PE funds. These changes signaled that the country was ready for PE investments and sparked a surge in the number of PE firms that were established. Between 2007 and 2010, more than 20 PE funds were raised compared to only four funds prior to 2007.

With new sources of funding, a well-developed regulatory framework, economic growth and mounting international attention, the Colombian PE industry has risen to a new level and is quickly becoming one of the most exciting markets in Latin America. In fact, according to the Latin American Venture Capital Association (LAVCA) scorecard, Colombia advanced from the seventh best country to invest in in 2007 to fourth in 2012.

Currently, more than 20 funds are operating in the Colombian market, including five with management from abroad, holding a total of US\$2.2 billion in assets, according to Balcoldex Capital. The latest funds closed by local firms are much larger and now average US\$200 million. At the end of 2010, Latin America Enterprise Fund Managers (LAEFM) closed its new Hydrocarbon Fund at US\$350 million, and this year Altra Investments raised a new fund totaling US\$164 million. According to LAVCA, 44% of the PE firms in Colombia are structuring

new funds, and their combined fundraising targets could add as much as an additional US\$2 billion to the market.

As these firms enter new fundraising cycles, local managers are starting to make good on their promises to seize opportunities and create value in Colombia through successful exits. In 2010, Tribeca made its first exit by selling Latco, an oil-drilling company, allowing its investors to realize an internal rate of return (IRR) of over 50%. Last year, Altra Investments made a highly visible and successful exit, showing a two-fold profit from the sale of its stake in the Peruvian generic pharmaceutical company Corporación Infarmasa SA, which the fund had acquired in 2007.

While local fund managers seek to raise ever larger funds, pursuing not only local but also international funding, more international firms, including funds of funds, are dedicating additional resources to Colombia. In 2011, Advent, one of the world’s leading global buyout firms, opened an office in Bogotá. The Carlyle Group and Southern Cross, other bulge bracket funds, are also paying close attention to the country. In order to attract investors, these groups counterbalance their newly appointed teams’ lack of local experience with a more proven track record and the comfort of the franchise value their brands carry. Different approaches are apparent in sourcing deals between local funds and international funds. According to Hernán Cely of Advent International, “the sourcing of deals between local and international funds is very different. Local funds work their local connections, many [of whom] are ex-bankers. The international funds have a more structured and analytical approach that involves analysis by sector.”

In connection with larger funds, PE firms are also looking at larger deals, as illustrated by SEAF. The firm’s first fund invested on average just US\$2.8 million per company, often in minority positions. However, its current fund is now targeting an average of US\$10 million per investment, with a maximum of US\$25 million in deals that include co-investors. Laura Lodoño, of Altra Investments, commented on this dramatic shift in investment sizes, saying that, “initially, most of the opportunities in our pipeline were from \$15 million to \$20 million; today, we are looking north of [between] \$30 million and \$50 million per transaction.”

Even as PE firms increase their bets, the Colombian market still has a long way to go. Today, Colombia has only 2% of PE capital allocated to Latin America, and the continent's total asset base represents 2% of total global resources, according to figures compiled by Proexport Colombia. PE experts suggest that local pension funds should continue to be a major source of additional funding for future growth. In the last five years, compulsory and voluntary pension funds have grown by more than 25% a year, reaching a combined asset base of more than US\$72 billion as of March 2012. Based on the present regulation, pension funds profiled as moderate or high risk may place up to 5% or 7%, respectively, of their total asset base into the PE asset class. Considering current assets under management, an additional US\$1 billion could be allocated to PE investments.

The Investment Horizon: Riding the Wave of Growth

Given the relatively high growth rate and rapidly expanding middle class, it should come as no surprise that the demands for capital continue to increase, especially for industries that are more sensitive to consumer discretionary spending. In the near term, PE investors are finding several sectors particularly attractive: namely, retail, education, healthcare, housing, tourism and entertainment. Established PE firms in Latin America have also continued to express interest in sectors that will benefit from the country's overall macroeconomic growth as well as in recent trade agreements that could lead to more exports. These sectors include mining, agriculture, business-process outsourcing, IT services and software, and education.

Investment opportunities are arising in more niche industries as well. One such example is Dynamo Capital, a firm that invests in television- and film-related projects. Over the past five years, Dynamo has bridged the capital need for a burgeoning film industry in Colombia. According to Alejandra Guzman, the firm's director of investments, these investments not only have been attractive from a financial point of view, but have also contributed to economic growth by providing jobs. Supported by government incentives to help promote job creation and spending in Colombia, these projects can be

particularly profitable for local investors with specialized market knowledge, such as Dynamo. It is an example of the potential economic impact that small to medium PE firms can have in the coming years in terms of alleviating capital constraints and supporting job growth.

Meanwhile, no discussion about Colombia would be complete without addressing infrastructure projects. As the country continues to grow and place additional demands on its already stretched infrastructure, the private sector has become increasingly involved in funding projects to address the most critical infrastructure needs, including utilities and transportation systems. PE interest in infrastructure investments has continued to grow, and recent fundraising efforts have indicated that 27% of capital raised has been marked for this sector.

How PE firms deploy this capital has been, and will likely continue to be, segmented into two categories: primary investment in infrastructure projects and periphery investments in infrastructure service providers. Larger funds, such as Ashmore and Brookfield, have raised sizeable amounts of capital designated primarily for investing directly in infrastructure projects. As an alternative approach, the lower and middle market-sized funds have expressed interest but have generally pursued a strategy centered around investments in outsourcing or service business that would benefit from the presumed growth of these projects. This strategy mitigates the timing risks that can be associated with the projects while still allowing these more generalist firms to participate in the seemingly inevitable growth that will come from the infrastructure sector in the coming years.

Risks and Challenges Ahead

Although the PE landscape in Colombia is broadening along with the country's rapidly growing economy, several challenges still loom on the horizon, including limited track records for funds, a sufficient number of sizeable transactions, entrepreneur/manager awareness of PE, and exit opportunities in the future.

A primary challenge that PE firms will face is the task of raising capital for new funds in the absence of a clear returns profile. With both an increase in the number of funds raising capital and an increase in the average

target fund size, the competition for capital fundraising will be more intense, and many fund managers will need to convince potential investors of their ability to succeed without a clear track record in the region. Those managers that are successful at fundraising may still face challenges in finding transactions of sufficient size and scale to deploy capital efficiently.

In addition, the industry must work to educate entrepreneurs about the existence of PE capital and the role this funding can play. Most Colombian business owners are just starting to become acquainted with PE and venture capital. The vast majority still do not know what these funds represent and how they can fit in their growth plans. The deal environment in a market such as Colombia is inherently different from other, more established PE markets. Contributing to the difference in the deal environment there is the fact that many of the more sizeable businesses are family-owned enterprises, with owners reluctant to accept outside capital and/or relinquish control. As Guzman noted, “It can take a long time to cultivate relationships with these family-owned businesses, and when you do, how do you convince them that a PE investment was a good opportunity?”

Finally, there is the challenge of finding exit opportunities that allow firms to obtain the liquidity needed to provide returns to their investors. Initially, most PE managers see a strategic sale as the main exit route. However, with the influx of larger international

funds willing to write bigger checks, sponsor-to-sponsor exits could become a realistic possibility in the near term, although this is still uncertain. The increased IPO activity in 2011 and the merger of stock exchanges in Colombia, Chile and Peru could also provide another path toward liquidity for PE investors. “The stock market has been rising dramatically recently, with 12 IPOs of mostly blue chips that added up to more than \$8.2 billion in the last 18 months — a historic record for Colombia,” says Felipe Irigorri of Tribeca Management. “IPOs for midsize companies should be more of a reality in two to four years.”

Colombia’s PE industry will not become a globally significant market until it has established a track record of solid investor returns. Given the lack of this track record, the next investment cycle may prove to be make-or-break for the industry. If fund managers are unable to deliver on the promised economic opportunity, the PE industry in Colombia will struggle to grow at the same pace it has sustained since 2007. However, given the favorable economic conditions, political stability and relatively strong economic position in the region, fund managers up to the task should be able to realize gains that will spur continued PE investment interest in Colombia.

This article was written by Rodrigo Boscolo, Ben Shephard and Wallrick Williams, members of the Lauder Class of 2014.



Baby's First Birthday: Lessons from a Brazilian E-commerce Start-up

The e-commerce story in Brazil is one of tremendous opportunity, but with significant barriers to entry. While the country's growing middle class and its ranking as the fifth most Internet-connected country would suggest a good fit for e-commerce, consumers still harbor skepticism about making purchases online. Brazilians generally do not believe that a product will actually be delivered, that it will be the correct item in good condition and that the credit card information they must provide to a third party will be secure. Bureaucracy and corruption further complicate the situation but amplify the rewards for entrepreneurs willing to take on these challenges. A success story is one of Brazil's leading baby-products e-commerce companies, co-founded in October 2011 by Davis Smith and his cousin, Kimball Thomas.

Genesis of a Company

Already a successful entrepreneur — following the launch of pooltables.com, the largest independent retailer of pool tables in the U.S. — Smith arrived at Wharton knowing he wanted to start another business. During his first year, he sold the pool table company and worked closely with his cousin to compile 60 new business ideas. The following summer, they winnowed the list down to four ideas and eventually to one — a baby-products e-commerce website in Brazil. Smith said that he wanted to “build something in Brazil that is completely different than what you know.” He was changing the e-commerce experience and catering to a large and growing market.

With the idea in hand, Smith and Thomas moved quickly to make it a reality. Knowing that the more people who knew about his idea, the more likely he was to be connected to valuable resources, Smith asked his classmates for feedback. Before travelling to Brazil, he contacted 100 to 150 people via LinkedIn and other social networks, targeting investors who believed

either in Brazil's long-term economic growth or in the country's market for baby products. These efforts proved successful when baby.com.br received US\$4.4 million in Series A funding in February 2011 from Tiger Global, Monashees Capital and SV Angel. Asked to explain the motivation for investing in this new company, a representative from Monashees Capital — a Brazilian venture capital firm focused on the Internet and education — explained that the three main factors were the strength of the team, the large market and the weak competition. Other companies either focused strictly on retail baby apparel or were unfocused, offering much more than just baby products.

With the first round of financing in place, baby.com.br launched its website in October 2011, just a few months after Smith and Thomas graduated from business school.

Operationally, an e-commerce company is much different than a retailer. While a brick-and-mortar store involves a simple transaction, an online purchase includes a security analysis to determine whether a sale is likely to be fraudulent, verification that the product

is in stock, either a credit/debit payment or a voucher-like payment system called boleto, order-processing by operations and, finally, shipping and delivery. While these aspects of doing business are difficult to change, baby.com.br has found other ways to be innovative.

Baby.com.br emphasizes quality and a commitment to customer service, offering clean, high-quality baby products to its customers, who expect that their purchases will arrive in excellent condition. Its user-friendly website offers products in 11 different categories: clothing and shoes; food and accessories; toys; strollers and car seats; diapers and accessories; outlet; accessories for trips; bath and hygiene; bedding; books/CDs/DVDs; and safety and protection. In addition, baby.com.br provides dedicated in-house customer service to help customers navigate the website and resolve any post-purchase issues.

Baby.com.br has built trust with Brazilian consumers by securing the endorsement of Angélica, a well-known television host and actress, who signed on both as an investor and as “chief mom officer.” This gave the company immediate credibility and additional publicity. Through public-speaking opportunities and an “Angélica recommends” area on the website, Angélica has become the company’s public face.

Many aspects of baby.com.br’s internal structure are unique among both multinationals and start-ups. First, the merchandising team is in charge of demand planning, inventory planning and inventory management. In established multinationals globally, the division of tasks/roles is focused much more on dividing these three functions across several products. For example, a typical sports company might integrate demand planning vertically by assigning soccer, basketball and tennis goods to one team that works only on this specific purpose. Baby.com.br, on the other hand, decided to form merchandising teams based on its 11 product categories, with each team ultimately being responsible for its respective category from start to finish — e.g., sales, units and margins. Thus, any issues in production, development and distribution are identified and resolved quickly.

Current Challenges for E-commerce and baby.com.br

Brazil is a difficult market for e-commerce companies because of several structural problems, including burdensome regulations for starting a business and a weak infrastructure for shipping products across state lines. Indeed, according to Miguel Fernandez, baby.com.br’s chief financial officer, “Brazil is a complicated place to do business. It’s a bureaucracy. It has an inadequate infrastructure to carry out business.”

In the U.S., starting a company can be as simple as forming a limited liability company (LLC) in a tax-favorable jurisdiction, such as Delaware. The entire process might take a day or two, depending on whether a lawyer needs to be consulted beforehand. A representative of Veirano Advogados notes that the process in Brazil is very lengthy, especially for foreigners, often taking up to 180 days.

The shipping industry in Brazil is not as developed as in other areas of the world, so the country does not have the capacity to handle the current growth in e-commerce. For example, instead of depending on one or two national carriers, baby.com.br depends on 11 partners to deliver its products. Most of these partners are family businesses that lack basic features, such as tracking numbers. As a result, the company is obliged to maintain Excel spreadsheets and an internal database to track orders. This process is complicated further because a small percentage of ground shipments are at risk of theft. Although these situations are typically covered by insurance, this does not mitigate the reputational risk for the company. Baby.com.br’s shipping experiences are similar to those faced by a local fashion e-commerce start-up company that was forced to re-evaluate its free-shipping policy to include Belo Horizonte and Minas, in addition to Rio de Janeiro and São Paulo, to satisfy demand. Indeed, the infrastructure has vast implications for both companies’ abilities to deliver their products.

Margin sales are an interesting aspect of the Brazilian e-commerce market. Baby.com.br, like many other companies, has problems with huge working capital requirements. Much like car payments in the U.S., Brazilian customers can purchase items over a fixed

period of time via installment payments, but with no interest charges. This even applies to relatively inexpensive items. The seller carries inventories, but approximately 90% of its sales are on credit. Payments and, thus, the number of days payables are outstanding, can stretch out to several months, a common practice in Brazil. For example, diapers, strollers, car seats, etc., are delivered a few days after the purchase, but the company does not receive the funds in full until a few months later. Baby.com.br, like other companies in Brazil, needs to finance this operational aspect through either banks or other means. Other e-commerce start-ups have been able to negotiate with their suppliers, but this is an area where baby.com.br has faced challenges. Indeed, interacting with suppliers in general was a challenge at first. Each of baby.com.br's retailers, producers, and distributors has its own unique internal coding system. As a result, the company established its own internal system.

A major problem in Brazil generally has been the lack of talent. A contact at a successful fast-fashion start-up explained that both established companies and start-ups struggle to find prospective employees with the necessary technical skills and interests. The problem is further compounded at start-ups in emerging industries, such as e-commerce, because entrepreneurship is not regarded as highly as traditional employment options.

While baby.com.br has been able to establish itself in a relatively short amount of time, its growth has been stifled by challenges, such as a lack of data and a lack of industry standardization.

A business requires data to carry out customer analytics and optimize operations. For example, a company's historical performance can be used to conduct spot analysis and plan sales optimization. And entrants into established markets can rely on published information about competitors. This was not an option for baby.com.br, which had to design its projections from scratch and then improve upon them through the internal data collected during the first few months of sales.

To promote sustainable growth, processes and capacity need to be determined systematically. For example, detailed projections are needed for purchasing decisions and to optimize existing inventory. In addition,

warehouse capacity requires an advanced warehouse-management system coupled with appropriate capacity. After months of applications for federal, state and local permits, baby.com.br recently moved into a new warehouse that is nearly four times larger than its previous site. However, the new warehouse-management system will not be in place until early 2013.

One challenge baby.com.br has faced is in the area of original website/technology use. The company originally relied on a third-party platform for its source code. Any technological change made to the website's appearance requires a complex roll-out process, and not all changes are rolled out at once. For example, female consumers of specific products may be targeted in the process of rolling out certain new aspects of the website. The company invites input from current users and then modifies as needed. As baby.com.br's dedicated social media specialist Guilherme Lenz observed, "We won't decide; moms will decide."

Social-media-specific challenges are important for baby.com.br's future. Currently, Facebook is a cheap way for e-commerce businesses to grow their companies. Baby.com.br's Facebook page "likes" may transform into sales. Lenz explained that some current tactics involve targeting followers of Angélica's husband, featuring sponsored stories, evaluating the integration of open-graph technology in customer registration and offering promotions that encourage customers to sign up for e-mail blasts.

A general opportunity for all e-commerce companies in Brazil involves simply penetrating the market further. As an interviewee at a furniture e-commerce website commented, "The growth opportunities are limitless. Only 1% of furniture sales in Brazil are currently transacted online." As more and more Brazilians gain access to the Internet and consumers become more comfortable with online purchases, the population of potential e-commerce consumers will continue to grow exponentially.

Going forward, baby.com.br will need to improve its website. A few features are missing, and others are inadequate. Currently, the search function is not relevant, so the company must develop new algorithms and

mechanisms. Indeed, developed markets often include complex product recommendations as part of this package. Baby.com.br's technology team has set a goal of putting together a new platform.

Baby.com.br aims to review its overall strategy and focus. Different areas of the company need to realign their goals with the overall purpose. Growth is often intrinsic for a start-up at the beginning of the process. Now, the company is faced with making choices tactically or strategically. It must be forward-looking, making projections in a volatile market where data are often limited.

Take-aways for Entrepreneurs

Having attained first-year sales targets within its first six months, baby.com.br has been growing rapidly, and the company's new ambitious goal is to reach US\$1 billion in revenue within the next few years. The company plans to accomplish this by focusing on launching more verticals instead of international expansion. Smith wants to focus on Brazil because it is an enormous market and because it is easier to move existing customers to another vertical than to get new customers.

To accommodate this growth, baby.com.br is prioritizing technical innovation by planning a new website. Beyond making this website warmer and more approachable, Lenz's team is working to make the overall user experience very positive. Among the features being considered are single-click checkout, instead of the current seven-step process; free shipping with no minimum order size; delivery within 24 hours anywhere in the country, and a relaxed return policy. It is also essential that baby.com.br understands its customers. The company is focusing on the importance of client relationship managers (CRM). Buying/stocking certain

products and altering inventory will all come from CRM analysis. These managers will also help the company identify its customers and how best to allocate resources to target them.

Another priority for baby.com.br is the development of additional product verticals that offer better margins. A line of strollers and car seats is in development. In addition, the company is experimenting with flash sales through the launch of a separate website called Dinda.com.br. (Dinda is Portuguese for "godmother.") This latter website offers deep discounts for short periods of time but without the customer-service gold standard available on baby.com.br. With two models, customers have the flexibility to purchase according to preferences.

Reflecting on his experiences in Brazil, Smith offers a few key take-aways for aspiring entrepreneurs. First, "market size matters." Choosing a large market affords the entrepreneur maneuverability to adjust or re-scope a business, depending on market conditions. Second, "retail stores are hard to scale." Online advertising is much cheaper and can be modified quickly. Third, "people matter." A company is only as strong as its team, and bootstrapping talent can have a high cost in the long run. Fourth, "swing for the fences." Modest goals are not necessarily safer than ambitiously daring goals.

Beyond changing the customer-service experience for Brazilians in search of baby products, Smith hopes to serve as a model to "change e-commerce in [the] country." And he has some advice for MBAs in general: "Change the world. Change lives. Big impact. Try something different."

This article was written by Vasco Bilbao-Bastida, Wharton Lauder 2014, and Lucia Bonilla, Wharton 2014.



Education in Colombia: Is There a Role for the Private Sector?

In recent years, the government of Colombia has faced several obstacles in its attempts to catalyze socioeconomic progress, not the least of which has been working to end a drug war and regain control of most of the territory that had been lost to guerrilla groups. However, as Colombia enters a phase of economic stability and growth, it faces yet another enormous challenge: offering high-quality education to its citizens.

All education systems share a common goal: to give their citizen-beneficiaries broad access to a quality education. Other cultural and structural similarities notwithstanding, the Colombian education system stands in stark contrast to most other Latin American countries. In Colombia, for-profit education is forbidden by law. Consequently, the task of providing access to quality education lies exclusively in the hands of the government and private, not-for-profit institutions. Given this scenario and the experience of other emerging economies, is there an opportunity for Colombia to reexamine the role of the private sector in its quest to continue improving educational quality and access?

Gains in Access

Colombia has made remarkable advances in expanding the capacity of its schools, especially at the primary and secondary levels. According to UNESCO, in 1985, just 65.5% of eligible students were enrolled in primary school. Today, that figure is closer to 90%. Nevertheless, these gains have been tempered by continued struggles to reach students in rural areas. Moreover, the quality of education remains unevenly distributed, particularly in nonurban areas and resource-poor jurisdictions.

Some experts also question the reliability of these optimistic figures. Katty De Oro Genes, education

advisor for the Colombian National Planning Department, has said that, because public funds are allocated to municipalities based on access metrics, this “creates a perverse incentive for schools to eventually over-report the number of enrolled students, which could mask real figures.”

There is also a discrepancy in access to education for different age groups. The government has been much more successful in expanding access within primary schools, with the situation being skewed negatively at the higher grades. According to Carlos Alberto Casas Herrera, a professor at the University of Los Andes Education Research and Formation Center, “out of 100 students [who] start primary education in Colombia, only 40 will finish the 11th grade. Out of those, 10 will enter the university, and only five will graduate.”

Despite these qualifiers, Colombia has dramatically and unquestionably expanded access to primary and secondary schools, according to education experts. Improvements in quality, on the other hand, have been harder to attain. While primary and secondary education is fully subsidized by the government, there are also many privately owned, not-for-profit schools. Tuition can be substantial for these schools, which often offer a far-higher quality of education — in both curriculum and pedagogy — than can be found in public

schools. The gap that is created, and the fact that high-quality education is available only to upper-income families, eventually reinforce the social inequalities that characterize Colombia today. Furthermore, the quality, and access, differential is present not only across social strata, but also geographically. Because violence in Colombia is more prevalent in the remote rural areas, there are fewer schools present and even fewer good teachers willing to accept postings to those areas.

The government has taken other crucial steps to improve access to, and the quality of, education in Colombia. In 2007, an “Encuesta nacional de la deserción” (“National Survey on Desertion”) was commissioned to investigate the reasons for students’ high drop-out rates after primary school. The consulting firm McKinsey was also hired to look into the quality of the teaching force and at ways to incentivize teachers in public schools. Nevertheless, efforts to implement a system of teacher evaluations and variable compensation have been strongly opposed by FECODE, the teachers’ union.

To some extent, the government has tried to circumvent this problem by adopting two different models of school administration: concessions and partnerships. Under the former model, the government “outsources” management of the school’s infrastructure to a private institution. Under the latter model, the government pays tuition costs at a privately owned school. These models allow for some flexibility in teacher compensation and hiring policies because the teachers are not government employees. “These are the legal frameworks that have allowed us to get our foot in the Colombian public educational system despite the inflexibility of the purely public system,” noted Veronica Puech, CEO of Enseña por Colombia, a recently created nonprofit organization (based on the Teach for America model) that is aimed at improving the public education system by recruiting graduates and young professionals to teach in high-need public schools for two years. Puech added that these models have faced strong opposition from the teachers’ union, and thus far have had only a limited reach.

Other government efforts include a series of nationwide standardized tests —formerly named for the Colombian Institute for Tertiary Education (ICFES) but renamed recently as SABER (the Spanish word meaning “to

know”) — that are administered several times over a student’s academic career. These tests are used as nationwide gauges of education quality and have enabled education officials to establish budgetary and investment priorities. While the results of the tests are reliably indicative of student performance in any given year, constant changes in their formats make it futile to compare performance across years, ultimately nullifying the tests’ ability to measure curricular progress in the long term.

The confluence of efforts has generated skepticism that the government is within sight of guaranteeing universal access to quality K-12 education for all Colombians. De Oro Genes points out that one way for the government to achieve further development in terms of quality education and advancement in global education rankings is to exponentially increase its budget allocation. “Many people note the nominal increase in public education spending recently, but few realize that on relative terms, there has been no increase from 3% of the GDP, a figure which is low relative to other countries,” she said.

With the efficiency of government spending being called into question by various constituents, it seems that channeling more resources toward the system would be a logical next step. Thus far, government actions at K-12 have been relatively successful, even without the presence of the private, for-profit sector. Considering the nature of the remaining issues in quality and the demographic and economic profiles of those who are still not being reached by the current system, it does not appear that profit-seeking private companies would be sufficiently motivated to enter the market at this level.

Higher Education: A Failed Reform Attempt

Higher education in Colombia presents different challenges. Here, the system reaches a bottleneck, and aspiring tertiary-level students still face a drastic lack of access. Current estimates indicate that 3.2 million secondary-school graduates do not go on to higher education — not for lack of ability, but for lack of opportunity. According to the 2003 Colombian Household Survey, only 11% of youth between the ages of 18 and 24 were out of school because they were not

interested in studying. In other words, potentially 89% — or 3.5 million — of-age students would pursue a tertiary education if given the chance.

To provide a sense of scale, the 32 public universities in Colombia combined have only 600,000 available enrollment seats. Furthermore, the private, not-for-profit universities catering mostly to the country's elite increase access only incrementally due to their limited quantity and capacity. As a result, the vast majority of the public simply does not have access to higher education.

Governmental directives account for part of this conundrum. The *Ley 30* (Law 30) of 1992 regulates the financial structure of public universities and strictly prohibits for-profit companies and institutions from entering the market. As a result, higher-education financing in Colombia is inequitable and insufficient. Today, Casas says, “50% of the public resources designated for tertiary education are sent to only three universities.” Confronted with this inequity, many public universities have a hard time expanding their matriculation capacities or even maintaining their existing infrastructures. With such restricted resources, even traditionally high-performing public universities are facing increasing gaps in quality vis-à-vis top private universities whose generous funding and exorbitant tuition fees afford them the luxury of space and facilities. For practical reasons, since there is a huge, untapped market demand for higher education — and the public sector lacks the resources to expand access — a possible recourse lies in permitting the private sector to step in and fill the void.

Recognizing these challenges and opportunities, in 2010 the Santos government proposed a comprehensive reform to *Ley 30*. In its initial stages, this reform was intended to partner private companies with public universities to bring about initiatives that would improve infrastructure in the latter and, more crucially, fund research and innovation by the academic community that would eventually generate resources dedicated to education. It was also aimed at ensuring the autonomy of universities in internal resource allocation and relaxing the ban on for-profit universities entering the higher-education market.

This last, polemic measure was inspired in part by the success of other Latin American countries in addressing

problems of access. For example, by involving for-profit higher-education institutions, Brazil has increased the number of university students from 1.8 million to nearly six million over the last 12 years, 75% of whom attend for-profit institutions. Along these lines, the Santos government had hoped to open the Colombian market to these profit-oriented private universities, which would be able to circumvent the government's budget constraints and achieve large-scale access with funding from external investors.

Unfortunately, the move proved to be too radical; Colombian society, students and teachers' unions reacted adversely to the government's proposal, ultimately curtailing the reform. Some would argue that the opposition had ideological roots: Many believe education is a fundamental human right under the mandate and burden of the state and are thus wary of mingling public and private resources and — perhaps more worrisome — interests.

Second, while acknowledging Brazil's advances in expanding access, various interest groups in Colombia did not necessarily want to replicate the Brazilian model. Much of Brazil's success has resulted from the massive proliferation of low-cost universities, which are typically not known for their quality of teaching or research. In fact, these universities are known for their relative lack of pedigree, compared to the leading public institutions, which remain as competitive and as exclusive as ever. Using Brazil as a cautionary tale, interest groups argued that quality was paramount, and the presence of for-profit institutions would provide access at the expense of quality.

Finally, many criticized the manner in which the Santos government neglected to address the civil society's valid concerns in the process of presenting its reform agenda. As Casas has noted, “The issue was not the changes themselves, but the way that they were proposed and the government's failure to address certain critical concerns.”

Smarter Regulation: A Possible Way Forward?

Two years later, the controversy has subsided, and it is now an opportune moment for the Colombian government to reopen a constructive debate on how best to reposition *Ley 30* to facilitate its worthwhile goals. Many of the concerns raised earlier by various interest

groups could be addressed through more creative regulation. For example, a regulatory framework could be developed to attract investors seeking profitability from tertiary education while ensuring that the overall quality of the education system is sustained. At that point, remaining critics might still argue that for-profit universities will never reach the top tier in terms of teaching or research quality. However, that is not such a foreboding reality. Incubating world-class pedagogy and research at every university is a desirable long-term goal, but the critical short-term target is to ensure that people who would otherwise not have access can pursue their studies, thereby directly increasing the country's skilled human capital.

One important element of this updated framework could be Colombia's solid track record in standardized testing. Tests can be used not only to track quality across institutions, but also to monitor and sanction universities that do not meet quality standards. In addition, Colombia could make it compulsory for all its universities to adhere to the certification standards of objective, international accreditation bodies, so there would be clear and globally competitive guidelines by which higher-education institutions would have to operate.

Expanding access to tertiary education without compromising quality is critical for ensuring that the education system attains its goals for both the students and for the country. In the short-to-medium term, a well-designed regulatory framework can help. But over the long term, the market would naturally self-regulate and exclude private universities with low returns for its graduates in the labor market. Therefore, if Colombian universities can provide an affordable education and enable the students to secure better jobs after graduation, as has happened in other countries, the students will pursue higher education. In short, the aperture of higher education to market forces, within the confines of smart

regulation, would be an efficient and effective way to expand access.

The Colombian government has made great strides in expanding the country's education system. This is particularly visible in primary and secondary education. Key challenges remain, but, fortunately, they are within the scope of what the government can do. Access is widely recognized as the main problem for tertiary education, and the government has signaled its willingness to raise the flag and ask for help from the private sector.

This pattern is consistent with a key trend found in other emerging markets, where the demand for education and increased investments in human capital have attracted private investors seeking profit, especially in the higher-education sector. To follow this trend to its final step — i.e., to allow for-profit education — the government must align society's support with its political goals. Apart from the more traditional argument of how private tertiary education can expand access, Colombia needs to emphasize how this can be accomplished in a balanced way, without diluting quality extensively. International private universities can support internationalization and the exchange of professors; and private companies can finance laboratories, research and innovation. While purely social-related research and innovation could still be the purview of the government and public institutions, the inclusion of the private sector in the production of knowledge can only benefit the Colombian economy and society. Ultimately, all the parties would contribute to the creation of a successful cycle, where private-sector players help the government fill gaps in the educational system, grow sustainably with profit orientation and generate a positive net social impact.

This article was written by Andre Izcson de Carvalho, Yiwen Looi, Fabio Saad and Joseph Sinatra, members of the Lauder class of 2014.



Coffee in Colombia: Waking Up to an Opportunity

Every day, more than 500,000 coffee growers throughout Colombia fulfill a family tradition, one that has been passed down from generation to generation. Growing premium-quality coffee beans across nearly 2.2 million acres of Colombian highlands is an important part of their heritage. For Colombians, coffee is not merely a bean, but a part of their national identity. In fact, coffee growing is the largest source of rural employment in the country. The centrality of coffee to Colombian society and to its international image is exemplified by the nation's president, Juan Manuel Santos, who spent much of his career representing the Colombian Coffee Growers Federation (FNC) at the International Coffee Organization.

Colombians pride themselves on their reputation for high-quality coffee beans, which result from rich volcanic soil and predominantly shade-grown cultivation. In addition, the alternation of wet and dry seasons supports two harvests, one running from September to December and the other running from April to June. Coffee is grown in the highlands of the Sierra Nevada of Santa Marta as well as on the slopes of the three sections of the Andes mountains that traverse the country. It can be planted at altitudes of up to 6,400 feet, where the climate creates superior beans by favoring increased acidity. Because the terrain precludes the possibility of significant mechanization, Colombian coffee is harvested by hand at its optimal ripeness and cleaned to prevent mucilage from permeating the beans. This process differs from that of other major coffee-growing countries, such as Brazil, where coffee is produced on a massive scale at altitudes below 3,200 feet and is often not cleaned immediately. In addition, Brazilian coffee is harvested mechanically, yielding what many believe to be a lower-quality product.

Harvesting coffee by hand in Colombia results in not only a higher-quality product, but also the broader involvement of coffee growers in the industry, which, by necessity, employs a large number of small-scale farmers.

Some 95% of Colombian coffee-growing families operate on small plots of land, averaging five acres each. This characteristic distinguishes Colombian coffee production as essentially a family-run operation, in which all of the harvesting and post-harvest processing is carried out by the growers themselves.

In 2010, Colombia produced 8.9 million 60-kilo bags of green coffee, which represents the first stage of coffee production. This crop was valued at US\$2.3 billion. In economic terms, this means that coffee production represents 16% of the national agricultural GDP. Green coffee beans are then shipped throughout the world to different companies that roast, package and distribute the finished product under a variety of brand names. According to the FNC, in the past five years, at least 37% of Colombian coffee exports were shipped to the U.S., while Germany received more than 10%.

The FNC: A Unique Model

The FNC is the largest rural non-profit organization in the world and was created in 1927 to represent and defend the coffee growers' interests. Its members, elected by the growers, communicate with their constituents and meet annually to carry out important duties, including budget creation. They also design and implement the

various social programs requested by coffee-producing families. According to Alejandra Londoño, vice president of international business at Juan Valdez, one of the FNC's current priorities is developing strategies for adapting to global climate change. This phenomenon has resulted in more intense periods of rain, which have a significant impact on coffee production.

Distributing profits in a manner that promotes a minimum standard of living for growers is difficult because most of Colombian coffee's added value is achieved at the retail level. To address this challenge, the FNC established a National Coffee Fund in the early 1940s. This fund supports the Purchase Guarantee Policy, which offers farmers a transparent minimum price for their product based on a formula that accounts for the current international market price and the exchange rate, among other factors. However, coffee growers may achieve higher prices for products with special characteristics, such as organic coffee.

The growers have the option, but not the obligation, to sell as much of their output as they choose at the established minimum price, and may do so at any time at one of more than 500 locations around the country. Thus, each grower is able to obtain, on average, approximately 95% of the value of the coffee he produces. According to Marcela Jaramillo Asmar, marketing and advertising coordinator for the FNC, "what this structure guarantees ... is that the coffee grower will always have the best option — either he receives the price assured by the FNC or he receives more. In many [countries], the producer receives much less because he is subject to the market." Through the FNC, growers are aware of the price at the time of planting, enabling them to more effectively plan their production and better manage their cash flow.

The FNC exports approximately 30% of Colombian coffee, making it the largest exporter of coffee in the nation. The National Coffee Fund is financed through a contribution of US\$0.06 per pound of green exported coffee. Jaramillo Asmar noted that "the work of the FNC, among many other tasks, is to administer these resources to assure the well-being of the coffee growers." Through the fund, the FNC provides technical assistance to coffee producers, scientific research, quality-control programs,

living-condition improvements and international advertising for Colombian coffee. The fund invested a total of US\$365 million in these endeavors in 2011 alone.

Responding to a Changing Coffee Market

In an ongoing effort to significantly increase value for Colombian coffee growers, the FNC works to distinguish the Colombian product based on its superior quality. According to Jaramillo Asmar, it became necessary to develop marketing strategies to ensure that consumers would "recognize and specifically seek out Colombian coffee." To this end, the FNC began an international marketing campaign in 1959, creating the legendary Juan Valdez character. In addition, the familiar triangular logo representing Colombian coffee was introduced in 1982 and used in marketing efforts to signify coffee of 100% Colombian origin. As a result of both endeavors, consumers began to select coffee based on its geographic origin rather than simply by brand.

According to Londoño, the Starbucks phenomenon of the 1990s led to rapid and significant changes in the retail coffee market. Previously, most consumers purchased coffee in grocery stores, where the process of differentiating Colombian coffee was relatively straightforward. However, with the emergence of Starbucks, coffee originating in countries around the world, including Costa Rica, Nicaragua, Honduras and Ethiopia, became well known to consumers. Jaramillo Asmar added that "the consumer began to see many more options, not only in terms of origin, but also in the coffee experience." As premium beverages, including cappuccinos and espressos, became more popular, consumers began to value coffee differently. Colombia's existing brand positioning became a liability because it was closely associated with Folgers, Maxwell House and other mainstream brands found in supermarkets — brands Jaramillo Asmar referred to as the "safe choice."

To access the higher-value premium segment, the FNC in 2002 created the company Procafecol, which operates Juan Valdez retail outlets, paying approximately 5% of its sales in royalties to the FNC. Procafecol sought to position itself at the high end of the value chain by marketing Colombian coffee and selling it through Juan Valdez-branded retail stores. Jaramillo Asmar

explained that, unlike coffee sold through other outlets, the FNC controls the entire chain of production for coffee sold at its stores, thereby ensuring that the highest-quality standards are maintained “from farm to cup.” Procafécol’s stores are intended to be viewed as personally endorsed by the Juan Valdez character.

The FNC owns 83% of Procafécol, small independent coffee growers own 4% and the International Finance Corporation (IFC) owns the remainder. The fact that 18,000 coffee growers currently own shares in Procafécol reflects their confidence in it and the ownership they feel toward the company. Colombia also continues to sell coffee in other segments of the value chain because the large volume of its production requires that it extend beyond the premium segment to access a sufficiently large market for its output. As a result, and despite recent changes in the coffee industry, Colombia is still the nation that consumers associate most closely with coffee production.

Currently, both in Colombia and internationally, Juan Valdez is prominently positioned in the highly competitive market of retail coffee sales. In Colombia, Olla and Dunkin’ Donuts are its principal competitors, although more niche brands are beginning to emerge. Juan Valdez focuses on competing not only by delivering a high-quality product, but also by investing in extensive training for sales associates. These associates must be able to represent the brand effectively to consumers, explaining the value proposition of a company that enables small growers to reap the rewards of access to the retail coffee market. Juan Valdez envisions its customers as modern and socially conscious individuals who are willing to purchase high-quality products from companies whose brands align with their personal values.

By leveraging the popularity of the internationally recognized Juan Valdez character, the coffee shops managed by Procafécol have expanded into eight countries. A number of new products and innovation models are tested under the Juan Valdez brand, while the connection to the product’s origin and its high quality are consistently emphasized to consumers. The overall objective of each marketing campaign is to remind consumers that behind the coffee they buy, there are more than half a million producers operating small

family businesses. Procafécol expects to break even by the end of fiscal year 2012, at which point dividend distribution will be considered.

Using Coffee to Build a Better Tomorrow

Colombia’s system of coffee production and sales is oriented not only toward profit generation, but also toward the creation of a positive social impact. Through research and training, community and personal development, and environmental protection, the FNC creates a healthy, continuous cycle of sustainability among all involved. The strategy for improving the quality of Colombian coffee is driven by the idea that if families are able to obtain higher prices for their coffee, they will also improve their quality of life. To achieve this goal, the FNC in 1938 founded Cenicafé, its coffee research center for the development and innovation of competitive and sustainable technologies. With 66 researchers, Cenicafé focuses on projects ranging from quality optimization to environmental protection practices to agricultural disease control.

However, the research findings would not be as valuable without a system that shares the knowledge gained at Cenicafé and offers a training method that reaches small business owners in the remote coffee regions of Colombia. To meet this challenge, the FNC founded the Extension Service, its communication and training arm. Comprising over 1,500 technicians, this agency communicates with the more than 500,000 Colombian coffee producers on a regular basis. Contact is facilitated through a plethora of methods, including face-to-face individual or group meetings, mass media and the Internet.

The FNC offers a wide range of programs that support its goal of improving the well-being and social development of coffee producers. These programs vary in focus from education to health care to infrastructure. Over the past five years, the FNC has invested more than US\$38 million in education for Colombian coffee growers. For example, the School and Coffee program was launched in 1996 to incorporate coffee-related topics into the curriculum of primary and secondary schools, with the aim of educating the next generation of coffee growers. The FNC also invests in education through training programs

that focus on coffee-production analysis and business-administration topics aimed at increasing profit margins.

To combat the lack of health care available to these small coffee-growing families, the FNC teamed up with other entities to create the Social Security Through Health Care program, under which families receive health care through a government-subsidized system. Since 2004, this program has aided over 110,000 individuals. In addition, infrastructure is an important challenge in Colombia due to the country's mountainous terrain and its historic lack of investment. Improvements in infrastructure help connect rural families to the societal network and also facilitate the transport of harvested coffee. The FNC continues to promote projects in diverse sectors, including electricity, roads and housing.

Finally, environmental protection and sustainability are vital to the success of the coffee-growing industry. As a result, much of the work of the FNC, Cenicafé and the Extension Service is dedicated to understanding the relationship between coffee growing and the environment and finding techniques to minimize the

environmental impact at each stage of coffee production. This includes active participation in the conservation of water, soil and forests, in addition to biodiversity projects and waste-management practices.

Future Challenges and Opportunities

As the international coffee market evolves, the FNC will play an ever-increasing role in securing a positive future for Colombian coffee growers and their families. Because of the emergence of the premium-coffee culture, as well as developing consumer tastes, coffee has become a highly competitive industry, one with increased potential rewards and added value. In order for Colombian coffee to remain prized by consumers, thereby improving the quality of life for its more than 500,000 growers, the FNC must continue to reinvent and strengthen the Juan Valdez brand.

This article was written by Rafaela Andrade, Dawn Overby, Jessica Rice and Samantha Weisz, members of the Lauder Class of 2014.

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Building Blocks for the Global Economy