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THE LAUDER GLOBAL BUSINESS INSIGHT REPORT | 2019

The Global Push for Change

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The Global Push for Change

In every corner of the world, change is visible. Governments, businesses, organizations and individuals are pushing for transformation, refusing to accept the status quo because they believe there is a better way that can benefit more people. Perhaps these tireless change agents can find inspiration in Albert Einstein, who said, "The world as we have created it is a process of our thinking. It cannot be changed without changing our thinking." But growth rarely comes without pains: Over time, processes become institutionalized, traditions ingrained and corruption normalized, making real change that much harder to achieve.

Nevertheless, change agents persist. From the expansion of women's rights in Argentina and greater financial inclusion Brazil, to closing the digital divide in India and improving infrastructure in South Africa, re-visionaries are hard at work. In this special report, students from the Joseph H. Lauder Institute for Management & International Studies offer insights into the global struggle for change — whether it be how immigration is reshaping business and culture in Germany and Brazil, the ways in which old-world social connections have molded life in modern Russia, or how China is coping with socio-economic changes on its path to becoming a superpower.

The long view of history has been marked by periods of intense turbulence, and these times are no exception. But with time, patience and persistence, nations can harness the transformative power of change.

TABLE OF CONTENTS

POLITICS AND POLICIES

ECONOMY AND FINANCE

BUSINESS AND TECHNOLOGY

Green handkerchief mob at the Congress. Image from the Facebook page of the National Campaign for the Right to "Safe, Legal and Free Abortion", widely shared online.

Latin America's Green Wave: Transforming Women's Reproductive Rights

The issues surrounding abortion and reproductive rights in largely Catholic and conservative Latin America have always been a nonstarter, but the tide is slowly starting to turn. A "green wave" of activism is building across the region, bringing with it a push for greater freedom of choice for women. While legislation to allow abortion was recently defeated in Argentina's congress, many see the bill's consideration as the first step toward lasting change.

On a cold winter night in Buenos Aires, nearly 200,000 Argentinians came together to protest, chant and wait outside of the National Congress. The crowd huddled together in the frigid air, a sea of green handkerchiefs, banners and face paint. Women held handmade signs with messages demanding recognition and action regarding abortion rights: "Wealthy women abort, the poor die," and "My body, my right."

As more women take control of their own fertility, they no longer bear the burden of unwanted pregnancies and are able to join the labor force in greater numbers.

As a region, Latin America has some of the most restrictive abortion laws in the world. But this recent Argentine protest — and the broader women's movement it represents — illustrated a prominent shift that has ushered in unprecedented progress for abortion rights. Despite the continued influence exhibited by the Catholic Church and other conservative groups, Latin America could see benefits from focusing its attention on women's reproductive health not only from a cultural and political lens, but also as a principal driver of economic development. As more women take control of their own fertility, they no longer bear the burden of unwanted pregnancies and are able to join the labor force in greater numbers. Indeed, it appears a powerful wave of reproductive activism in the region is about to crest.

The Impact of Women's Movements on the Legalization of Abortion

The impetus for the recent women's rights and abortion legalization movement in Latin America was the murder of a pregnant 14-year-old girl in Argentina in May 2015. Chiara Paez was brutally beaten to death by her boyfriend;

her body was found buried next to his family's house. This violent incident, along with other media reports of femicides, led to protests by hundreds of thousands of people across the country and the emergence of a grassroots feminist movement called *Ni Una Menos* (Not One Woman Less), which is focused on reducing and preventing gender-based violence.

The *Ni Una Menos* movement began in Argentina but quickly spread throughout Latin America, with marches and protests held in countries including Uruguay, Colombia, Chile and Peru. Although *Ni Una Menos* started as a campaign centered on violence against women, it has since taken on broader women's rights issues, including reproductive rights. The movement has increased society's focus on women's rights throughout Latin America.

The momentum from *Ni Una Menos* has opened a window of opportunity for Argentina's abortion rights activists. For over a decade, Argentinian activist groups such as the Campaign for the Right to Legal, Safe and Free Abortion and Catholics for the Right to Decide attempted and failed to bring a bill decriminalizing abortion to the National Congress. However, as these groups joined forces with *Ni Una Menos*, they began to reframe the conversation around abortion rights. Rather than a pro-life versus pro-choice debate, activists instead concentrated their campaign on women's right to access safe and legal abortions. According to Argentina's Ministry of Health, an estimated 500,000 illegal abortions occur in the country each year. Approximately 50,000 women are hospitalized due to these unsafe procedures, and the complications that arise are the primary cause of maternal mortality. Argentina is not alone in these types of statistics — in Latin America, 97% of women live in countries where abortion is either banned or extremely restricted.

The growing awareness of these sobering statistics, as well as the emphasis on women's right to health care and a dignified life, is slowly shifting Argentine public opinion on abortion. According to a survey conducted by Amnesty International and Centro de Estudios de Estado y Sociedad (Center for the Study of State and Society), over half of Argentina's population is completely or partially in favor of the decriminalization of abortion. This societal change in opinion regarding abortion and the mass mobilization of women in favor of abortion rights has been dubbed the "green wave" because of the green handkerchiefs and banners used by activists. It has also resulted in Congress voting for the first time in Argentina's history on a federal bill to decriminalize abortion.

> Religious and traditionalist views have long blocked these simple rights that in other countries are considered critical to a woman's health.

In the summer of 2018, hundreds of thousands of women, all wearing green, gathered at the Congressional Plaza in Buenos Aires to show their support for the legislation. The bill, which would have legalized abortion up to 14 weeks of pregnancy, narrowly passed in the lower house on June 14. However, after 16 hours of debate on Aug. 9, the bill was voted down in the Senate, with 38 lawmakers against and 31 for the measure. Despite the bill's defeat, many saw its consideration and passage to the Senate as significant progress for women's reproductive rights in Argentina and a step toward the successful passage of an abortion rights law.

Consistent Failures in Latin America's Abortion Activism

Despite the strength of the women's movement in Argentina, its ultimate failure mirrors the experiences of many other Latin American countries. Attempts to pass more expansive abortion rights laws have regularly failed due to the deep influence of the Catholic Church, the patriarchal nature of Latin American societies and minimal regard for women's health. Uruguay, Cuba and Guyana are the only Latin American countries to allow legal abortion, and the case studies of Argentina, Brazil and Mexico shed light on why abortion rights and access has remained so limited in the region.

Argentina is the birthplace of Pope Francis, who has denounced abortion in keeping with church doctrine. A survey conducted by the nonpartisan Pew Research Center in 2014 found that 69% of Latin American adults identify as Catholic, demonstrating the continued power of the church in the region. The church has long opposed any form of abortion; the 1983 Code of Canon Law delivers a guaranteed excommunication to any Catholic woman who has received an abortion. Interestingly, in some parts of Latin America, Catholicism has given way to Protestantism. According to a recent New York Times report, in Latin America, converts from Catholicism to other forms of Christianity are even more likely to oppose abortion.

Another example of the pressure exerted on abortion rights can be found in Brazil, where an abortion is only legal in the instance of rape or if it is necessary to save the mother's life. In 2009, a 9-year-old girl in the city of Recife was raped by her stepfather and became pregnant with twins. To save the girl's life, as her body was too immature to give birth, the girl's mother arranged an abortion. The local religious leader, Archbishop José Cardoso Sobrinho, made a public declaration that the girl's family, in addition to the doctors who performed the abortion, were to be excommunicated. Prompted by unfavorable news coverage, the church issued a public apology for Sobrinho's comments. Notwithstanding this example, Brazilian women continue to suffer from the backlash of extreme ideologies. Debora Diniz, an anthropologist at the University of Brasilia who recently wrote a petition on abortion to the nation's Supreme Court, received various death threats and was forced to leave the capital to reside in a safe house before her case hearing.

> Although the green wave has made significant progress, advocates have yet to successfully liberalize abortion laws.

A more successful story comes from Mexico, also a heavily Catholic country where abortion is permitted only in Mexico City and prohibited everywhere else. However, women can travel from other states to the capital city for abortions, so those with resources are able to find a safe procedure. In 1990, the Chiapas state legislature permitted first-trimester abortions in order to prevent the negative consequences resulting from illegal abortions. Nonetheless, the Catholic Church and linked organizations in the state reacted so strongly that within two weeks this legislation was suspended. In the early 2000s, a 13-year-old rape victim code-named "Paulina" was pressured by doctors and the church to give birth to her child, sparking international resistance. Unfortunately, little progress has been made by the feminist movement or abortion activists to expand access to abortion outside of the capital city.

These tragic stories would likely have been avoided if women had access to basic family planning services. Religious and traditionalist views have long blocked these simple rights that in other countries are considered critical to a woman's health. As a result of Catholic prohibitions on contraception, it remains challenging for women in Latin American to take control of their own sexual and reproductive health. Moreover, seeking methods outside the law has had dire consequences.

Why Access to Family Planning Matters

At the 1994 International Conference on Population and Development, nearly 200 countries established that access to the information and services needed to choose whether and when to become pregnant is a universal human right. Yet millions of women, specifically those in developing countries, still lack the resources necessary to prevent pregnancies or enable safe births. In fact, Latin America has both the highest abortion rate globally and accounts for the largest percentage of unsafe abortions. According to the Guttmacher Institute, a nonprofit dedicated to reproductive health and rights, nearly 1 million women in the region are treated annually for complications from unsafe abortions. The number who die each year from dangerous or clandestine abortion procedures is a tragedy that is grossly overlooked.

Young, rural and uneducated women are disproportionately affected, as the poorest 20% of households in developing countries face the highest unmet demand for family planning. Although abortion is criminalized across most nations in Latin America, wealthier women can travel elsewhere to receive abortions or pay for private procedures in their home countries, often creating a double discourse on the issue.

The exclusion of poor women from lifesaving contraceptive and abortion services adversely affects not only the well-being of individual households but also of broader communities and entire nations. When a woman becomes pregnant and does not have the financial means to pay for child care, she must remove herself from the workforce. According to the Washington, D.C.-based Population Reference Bureau (PRB), each pregnancy can reduce female participation in the labor force by up to two years, which translates directly to foregone income and savings. Moreover, any resources that could have been dedicated to education for the woman or her current children are now diverted.

Numerous case studies support the idea of a quantity vs. quality trade-off in which women who are able to regulate their fertility by limiting or delaying childbirth invest more heavily in their family's health and education. Because healthier children have a higher likelihood of surviving to adulthood, parents have greater incentive to ensure their schooling, which improves access to labor market opportunities in the future. At a macro level, improvements in reproductive health reduce fertility rates and are positively correlated to income growth and asset accumulation. Higher life expectancy also generates larger retirement savings and produces more financial capital for future investments. Furthermore, slower population growth increases the share of working-age individuals in the population and positively impacts labor force productivity, per capita income and long-term economic growth.

The 89 million unintended pregnancies each year in developing countries hinder women from joining and staying in the paid labor force and reaching financial independence. The United Nations Population Fund (UNFPA), a sexual and reproductive health agency, deems inequalities in reproductive health and economic disparities as mutually reinforcing with "the potential to trap women in a vicious cycle of poverty, diminished capabilities and unrealized potential." From both an economic and health standpoint, it is critical that Latin America enhance the quality of, and access to, reproductive health care for its female citizens.

The Future of Reproductive Rights in Latin America

The various women's movements in Argentina have created a powerful force of advocacy for female reproductive rights, and the world is taking notice. A *New York Times* article published the same day that the abortion rights bill failed in the Senate focused on how the defeat has galvanized supporters to be more determined than ever. "The women's movement mobilized all regions of Argentina; it was intergenerational and exceeded everybody's expectations … the new generation of teenage girls who came out in such numbers will not be stopped," Françoise Girard, president of the International Women's Health Coalition, told the newspaper.

Beyond Argentina, the *Ni Una Menos* movement has also had a strong influence on other Latin American countries regarding abortion rights legislation. In 2017, Chile passed legislation to end its total ban on abortion, now allowing abortion in the instance of rape, if the mother's life is at risk or if the fetus is not viable. In Brazil, the Supreme Court held a two-day hearing in August 2018 to discuss decriminalizing abortion up to 12 weeks. These events suggest that the tide is slowly turning green for abortion-rights activists and their efforts to pass less restrictive abortion laws in Latin America.

Although the green wave has made significant progress in the past few years — both in its impact on public opinion and by placing legislation before Congress — advocates have yet to successfully liberalize abortion laws.

Despite the recent defeat of the abortions rights bill in Argentina, the women's movement continues to swell across Latin America. One day, activists may truly be able to say *ni una menos* (not one woman less) possesses the power to make her own choices about her body and fertility.

This article was written by Alexa Woods, Girish Sankar and Hannah Lewis, members of the Lauder Class of 2020.

Integration in Germany: What Challenges Lie Ahead?

Germany is dealing with an unprecedented immigration crisis that is forcing the nation to re-examine its policies and practices toward those seeking to call it home. It's a conversation that has spread across the continent as Europe grapples with a wave of refugees from struggling countries in the Middle East and Africa. This article highlights the current policies toward immigrants and examines the challenges ahead.

The impact of the refugee crisis in Germany has been greater than that expected by the European and German authorities. In only three years, Germany has received more than 1.3 million asylum requests, and the long-lasting effect of accepting these asylum-seekers on politics, economics and society remains to be seen. Since 2015, Europe has experienced the most significant influx of displaced people since World War II.

Over the course of two days — Sept. 5 and 6, 2015 — thousands of Germans rushed to the streets in Munich to welcome the more than 13,000 refugees who entered the country. There were moving scenes of local people delivering food and clothes to the newcomers, who came mainly from Syria, Afghanistan and Iraq, but also from other countries such as Pakistan. At the time, Chancellor Angela Merkel's defiant answer to the immigration crisis was, *"Wir schaffen das"* ("We can do this"). However, three years later, her humanitarian decision to open the country's doors is being called into question.

> Germany became a desirable destination for displaced people because of its social benefits.

War, hunger, insecurity, violence and political persecution have created an immigration crisis in parts of Africa and the Middle East, where an unprecedented number of people have fled in the last decade. The largest number of refugees now in Europe have come from war-torn Syria, Iraq and Afghanistan.

Initially, neighboring Arab countries received the most refugees. However, that started to change in 2015 when Europe became the primary destination. The main reason for this shift was that some of the neighboring countries, including Turkey, Jordan and Lebanon, reached a saturation point and capped the number of immigrants they would accept, forcing refugees to look for alternative routes. At the time, Jordan was hosting more than 625,000 refugees, according to the United Nations High Commissioner for Refugees. The country's ruler, King Abdullah II, argued that the international community would have to offer more help if Jordan were to take in more displaced people. Another important reason for the shift to Europe was the adverse conditions in which refugees were living in those countries. Many were housed in camps as large as cities and found it difficult to obtain an education, employment or a path to citizenship. These conditions still exist in 2018. The Za'atari refugee camp in Jordan houses 80,000 people, making it the country's fourth-largest city.

Germany became a desirable destination for displaced people because of its social benefits and strong economy. Moreover, Germany's constitution guarantees the right of asylum for those in need, allowing the refugees to apply to receive the status of asylum-seeker and to live and work in the country while awaiting a decision on their status. There were a significant number of immigrants already established in the country, which also made it attractive for newcomers. Only the Nordic countries offer similar integration conditions.

From a political perspective, tensions flared last summer as Interior Minister Horst Seehofer challenged Merkel on her and her party's immigration policies. As a direct result of this conflict, Merkel reached a bilateral agreement with Spain regarding refugees and established "transit centers" in Bavaria, where refugees would wait as their cases would be processed to determine what country would receive them.

Simultaneously of concern for Germany is human capital. Leaders struggle with how to utilize immigration effectively to increase the pool of qualified and skilled labor. As a result, Germany is considering whether it should draft its first laws to regulate immigration beyond its existing asylum policy. With Merkel's decision not to seek re-election, various political parties are weighing in on how those laws should be crafted.

The Clash of Culture and Politics

Even though immigration can help Germany to increase its qualified and skilled labor, accepting and integrating such a large number of immigrants does not come without a cost. Mirjam Honisch, a project manager at the Carl Duisberg Center (CDC), an integration and language school for immigrants in Berlin, describes the culture clash her students experience as they try to reconcile the customs, traditions and norms of their upbringing with those of Germany. This clash can be especially difficult for conservative Muslims living in Germany's socially liberal climate. "We had students who didn't want to come to class on Friday because they wanted to go to the mosque, or male students who didn't want to have female teachers," Honisch said.

According to Honisch, students are required to take a language course and are offered an elective course in culture. But knowing German language and culture is not enough, and some of them struggle to find jobs. Honisch said educated immigrants, such as doctors and engineers, find jobs easily, but immigrants with a less robust educational background usually do not. While Germany attempts to provide refugees with many social services, including psychological counseling, sometimes these services do not provide the support refugees need, especially because many of them are ashamed of their new unemployed status and ignore the help they are offered, according to Honisch. Moreover, even though Germany's policy is to spread the immigrants across cities and neighborhoods, many immigrants tend to live in the same neighborhoods, resulting in islands of poverty and isolation from the local German population.

Honisch said there are a few challenges that have arisen with integration. First, although Germany accepted a large wave of immigrants, leaders failed to plan or prepare properly for the influx. This failure led to friction with the local population, resulting in a rise in xenophobic tensions and the popularity of right-wing parties such as Alternative für Deutschland (AfD), conditions that Honisch did not think could occur in today's Germany. The AfD's entry into the Bundestag (Germany's parliament) signals the first time that a right-wing populist party has been represented in the government since the Third Reich, an alarming regression in German politics. Coupled with rising anti-immigrant sentiment in the public, the themes of immigration and integration have continued to become more present daily in political rhetoric.

Even though immigration can help Germany to increase its qualified and skilled labor, accepting and integrating such a large number of immigrants does not come without a cost.

Second, although Germany cooperates with other European countries in setting immigration policy, Merkel and Seehofer agreed in a mutual announcement that significant improvements are still needed for immigration to be handled seamlessly at the European Union level. There are ongoing political and diplomatic discussions among EU members to resolve how they might proceed in a unified manner. Quotas and other proposals are on the table. Under consideration is the creation of camps in the source countries or even near the EU borders. However, as Merkel said in a European summit in June, "We still have a lot of work to do to bridge the different views."

A scan of German newspapers headlines indicates the current immigration situation is a catastrophe, but the reality is quite different. The EU has reached an agreement with Turkey regarding immigration, and Syrian President Bashar al-Assad has regained control of most parts of Syria from ISIS, stemming the flow of immigrants from those countries. Moreover, the German government has invested millions of euros in assisting immigrants in their adjustment to German culture. In addition to the certified language and culture centers, there are many nongovernmental organizations working to help assimilate immigrants. The results of these efforts can be seen in Kreuzberg, a Berlin neighborhood that used to be considered an immigrant quarter but is now a multi-kulti (multicultural) haven, with young students, artists and hipsters coming from all over Europe to experience the emerging mix of cultures. Neukölln, another part of Berlin that was considered an isolated island of immigrants, is attracting so many young people that it has become too expensive for many of the students who want to live there. A recent survey by Business Insider revealed that 90% of the immigrants want to stay in Germany, indicating most immigrants want to start a new life in a physically safe and economically viable environment. Lastly, the influx of immigrants has the potential to replenish the workforce and assist in growing the economy.

> The lack of solidarity and the diversity of opinions regarding this matter could put at risk the central values that created the European Union.

Immigration Impact Is Felt Across Europe

While the refugee crisis is having a huge impact on Germany, it is also affecting the whole of Europe, especially the relationships among the different countries. There are several factors that help to explain this situation. Europe did not address the conflict in Syria appropriately and was unable to establish common agreements in time to deal with the massive arrival of refugees. It is also important to factor in the strong anti-immigration ideology of countries such as Italy or Poland, which significantly increases the difficulty of reaching consensus on the issues.

In the refugee crisis, the most significant agreement that has passed is the Dublin Regulation, which establishes that the country where an immigrant enters for the first time into Europe should be the one in charge of managing the request for asylum. This regulation, established in 1990 with the creation of the European free movement zone known as the Schengen Area, has the objective of avoiding three situations: people asking for asylum in more than one country; refugees choosing the country where they want to go; and persons being in Europe without any country examining their application. The main criticism of this regulation is that it is not equitable because it is based on the principle of responsibility rather than solidarity. The countries that receive the most significant number of immigrants reject these policies and request a redistribution of immigrants. On the contrary, Eastern countries such as Hungary, Poland, the Czech Republic and Slovakia are opposed to that redistribution. For instance, Polish Prime Minister Mateusz Morawiecki has expressed on many occasions that his country opposes the redistribution of asylum seekers among the European Union countries and, therefore, will not contribute to any plan directed to accomplish this objective.

When the need to replace the Dublin Regulation became a reality, two different solutions started to be discussed: establishing migrant centers outside Europe or inside Europe. In both scenarios, the immigrants would be transferred to these centers while their asylum requests are analyzed. If their requests are rejected, they would be returned to their countries of origin. One of the decisions adopted to mitigate the crisis was to strengthen the external borders of the European Union through an increase in financial aid granted to Turkey and the countries of North Africa in exchange for stopping the arrival of immigrants to the European continent. In a private forum, German Finance Minister Olaf Scholz argued in favor of strengthening the borders using mutual border control.

The movement of asylum seekers between nations is also generating conflict. To see how different the opinions in this area are, it can be useful to compare the sentiments of Poland's Morawiecki, who said, "No refugee from the Middle East can enter Poland"; Italian Secretary of the Interior Matteo Salvini, who said, "Italy cannot be the refugee camp of Europe"; and Merkel, who said, "Refugees must be distributed fairly."

This is a critical point because if no agreement is reached or if the agreements reached do not work, the Schengen Area and the European project could be at risk. The lack of solidarity and the diversity of opinions regarding this matter could put at risk the central values that created the European Union. As Merkel said, "How we deal with the immigration problem is something of a litmus test for Europe's cohesion and its future."

This article was written by Ron Kerbs, Joanna Klostermeyer and Marcos Vilar Benedito, members of the Lauder Class of 2020.

Reconciling History: How South Africa, China and Singapore Are Building a Better Future

If those who fail to learn from history are doomed to repeat it, as philosopher George Santayana said, then three nations are working diligently to change their future. This article examines how South Africa is emerging from its racist past, how China is establishing its independence from foreign influence and how Singapore is re-imaging itself as a multicultural utopia.

In creating a modern narrative, nations seek to reconcile their past with the present. History cannot be ignored or altered, so addressing it in a way that helps countries move forward is a crucial aspect of nation-building. There are numerous examples of governments working to overcome the repercussions of the past, including those of South Africa, China and Singapore. South Africa is trying to root out the remnants of institutionalized discrimination left from 40 years of apartheid; China is shedding its status as "the most humiliated nation," a title born from years of historical foreign control; and Singapore is thriving as a multicultural society with a strong economy, despite the challenges it faced as a new nation. The governments of these three countries are addressing their respective histories and leveraging them as motivation to break from the past and build a better future.

Few places carry the weight of history like South Africa.

South Africa

Few places carry the weight of history like South Africa. Only 24 years since President Nelson Mandela's electoral win, the country is still managing the legacy of apartheid. Through restorative justice hearings and black empowerment policies, politicians and business people attempt to showcase a South Africa that has moved on from its dark past. However, the social aftermath of apartheid remains challenging, as demonstrated by two key indices of inequality and racism. First, the World Bank's latest South Africa Economic Update showed the country's Gini coefficient, a measure of income distribution inequality, as the highest in the world at 0.63. Second, the Hate Crimes Working Group, a nongovernmental organization in South Africa, recently released its first research-based report, "The Hate & Bias Crimes Monitoring Form Project," which shows a total of 1,061 hate crimes reported in the country between 2013 and 2017. Although a hate crimes bill was drafted by the government in October 2016, the proposal has not wound its way through the legislative process. An examination of the following historical accounts and current policies allows for a deeper understanding of today's societal problems as South Africa attempts to move on from its apartheid past.

The systemic racial discrimination in South Africa was deeply ingrained well before the formal institutionalization of apartheid in 1948. Slavery in South Africa was abolished in 1834 and immediately replaced by de facto segregation against the newly freed black population. However, it was difficult for the minority white population to control black South Africans, who were moving to cities en masse during the 1930s and 1940s in search of jobs. With the election of the white supremacist National Party in 1948, apartheid was introduced to maintain white control over the nation. One of apartheid's most important objectives was resettling urban blacks in massive controlled townships removed from white towns, achieved through the Population Registration Act of 1950. The black community, followed by a small white supporter base, mobilized into an anti-apartheid resistance commonly known as "the struggle," driven by both nonviolent and violent uprisings.

In 1994, Mandela led the African National Congress (ANC) win, which marked the beginning of a South African democracy and, most importantly, the end of apartheid. Although the policy was abolished, racism still seeped into every aspect of society.

In 1996, the government established the Truth and Reconciliation Commission (TRC), a restorative justice system aimed at long-term reconciliation. While some regarded it as a successful way of dealing with human-rights violations after apartheid, a report by South Africa's Centre for the Study of Violence and Reconciliation & the Khulumani Support Group found that most victims felt that the TRC had failed to achieve reconciliation between black and white communities. In their opinion, justice was a prerequisite for reconciliation, but the TRC had favored the perpetrators of abuse rather than the victims.

The ANC, which is still the ruling party, is also trying to reverse the historically low economic status of black South Africans through the Broad-Based Black Economic Empowerment (B-BBEE) Act of 2007, which takes aim at the private sector by seeking transfer of ownership, management control, skills development, enterprise and supplier development, and socio-economic development to black South Africans. The Employment Equity Commission (EEC) for South Africa highlights that, as of 2017, white South Africans occupy 72% of the senior management positions in the private sector, while black South Africans occupy 73% of leadership roles in the public sector. In terms of income, Statistics South Africa's "Living Conditions of Households in South Africa" survey indicates that white South Africans earned five times more than black South Africans in 2015. These numbers are especially worrisome considering that only 8% of the South African population is white, according to the CIA World Factbook.

The Awethu Project, an investment firm that connects white business owners with black talent, is helping realize the positive impact of the B-BBEE by targeting 51% black ownership in the private sector. Although this goal will take years to achieve, affirmative action is in the minds of most business owners as they attempt to meet B-BBEE goals. Co-founder Rob LeBlanc described Awethu's commitment to helping investees recruit and promote black entrepreneurs to lead business functions and become the CEO's apprentices. With the support from Awethu, he said, these individuals will earn equity in the business through performance and become role models for other black entrepreneurs.

Since the power struggle between the British and the Dutch to secure natural resources in the 19th century, South Africa has seen multiple phases of racial division, corruption and socio-economic inequality. Today, despite the democratic regime, South Africa continues to suffer from deep racial trauma. The last president, Jacob Zuma, was forced to step down in 2018 due to corruption, harming the reputation of the ANC and empowering a growing opposition, the Democratic Alliance (DA). Zuma's successor, Cyril Ramaphosa, Nelson Mandela's confidant during the struggle towards a democratic country, brings hope to the South African people. Yet challenges remain, including broken trust, corruption, high youth unemployment (Stats SA reports 27% while informal sources report almost 50%) and systemic racism in the private sector. As Mandela once said, "To be free is not merely to cast off one's chains, but to live in a way that respects and enhances the freedom of others." The new South African leadership presents an opportunity to build a new South Africa that is not only free on paper, but also in practice.

> Despite the popular capitalist perspective that government involvement stifles innovation, that is not the case in China.

China

China was once a glorious empire. Its vast territory and sophisticated civilization made it the wonder of the East. Yet throughout history, China's identity would be rebranded. The fall of the empire, continuous invasions by Japan, division of Chinese territory into European spheres of influence after the Opium Wars, and consequent Chinese defeats led to its label as "the most humiliated nation in the world."

China considers itself a nation that has often suffered in the hands of foreigners. For this reason, it has continuously aimed to transform its image from that of a weakened country to one that is self-sufficient and poised to become the next leader of the world. Researcher David Kelly wrote about this change in "Seven Chinas: A Policy Framework," published by the Center for Strategic and International

Studies in February 2018. Kelly noted that China's policies in the last 40 years have emphasized self-reliance and independence from Western influence. The two most salient examples are the development of the technological ecosystem and the diversification of resource procurement.

> In order to foster a national identity of multiculturalism, Singapore has implemented unique policies for managing diversity.

China has become a leader in technological innovation, in part due to government initiatives to limit foreign influence. One of the most well-known measures is the Chinese Firewall, a series of legislative actions and regulations that enforce internet censorship, thereby limiting the nation's access to foreign websites. As a result, some Western websites are slow to load or blocked altogether because they are considered inappropriate or dangerous by the government. This type of government regulation has had a positive effect on China's domestic technology industry, enabling local companies to fill the gaps left behind by foreign tech giants for those services. Baidu, Weibo, Didi, Alibaba and WeChat are a few companies that have risen in the absence of Google, Twitter, Uber, Amazon and WhatsApp. China has created its own version of Silicon Valley, with its own incubators and venture capital funds, and it does not rely on the West to support innovation. A 2015 article in *Wired* described China's established internet titans — Baidu, Alibaba and Tencent — as operations that began as clones of American companies, but evolved and are headed in new, distinct directions. The change is indicative of a larger trend toward innovation, according to writer Clive Thompson. "Now major cities are crowded with ambitious inventors and entrepreneurs, flocking into software accelerators and hackerspaces. They no longer want jobs at Google or Apple; like their counterparts in San Francisco, they want to *build* the next Google or Apple," he wrote in the article titled, "How a Nation of Tech Copycats Transformed into a Hub for Innovation."

Despite the popular capitalist perspective that government involvement stifles innovation, that is not the case in China. When an idea succeeds, numerous startups join the market to compete for a share. During this period, innovation flourishes as companies compete for customers and related lines of business. Afterwards, the biggest companies survive to continue growing and become mainstays of the Chinese technology hub. According to the Chief Marketing Officer of Sinovation, a VC firm in Beijing, the key difference between Chinese and Western companies is the more intense competition in China that forces startups to continue innovating at a much faster rate to survive. The Chinese government also plays a role in ensuring the growth of companies by offering funding to industry leaders and implementing protectionist policies. Bloomberg News attributed part of the success of domestic giants, including Tencent and Alibaba, now two of the 10 most valuable companies in the world, to the Chinese Firewall.

Another example of China's economic independence is the diversification of its resource supply. China is expanding its influence in Africa by investing heavily in the continent's infrastructure in exchange for construction materials and access to arable land, according to Eleanor Albert, senior editor for the Council of Foreign Relations. In a July 2017 article titled "China in Africa," Albert noted that China has surpassed the United States as Africa's largest trading partner, becoming the destination of 15% of sub-Saharan Africa's exports and 20% of the source of imports to the region. "In its quest to secure resources, China engages in a form of commercial diplomacy that most other countries cannot match," she wrote. China has loaned more than $86 billion to Africa to aid the continent's infrastructure development. China has also been investing in Latin America and Southeast Asia to secure resources and build trade.

Through its economic policies, it is clear that the Chinese government is laying a foundation to ensure that its future is not susceptible to the whims of any particular nation. All of these decisions are meant to secure China's self-sustainability in the long run to overcome its history as the world's "most humiliated nation."

Singapore

Singapore presents another example of a nation whose present-day narrative of multiculturalism and emphasis on economic development are a direct response to its past. The city-state became a sovereign nation in 1965 after separating from Malaysia over racial tensions. Only five decades ago, Singapore was a small island nation with limited natural resources and a society composed of predominantly Chinese, Indian and Malay immigrants who did not have primordial ethnic ties to each other. It faced two key challenges: creating a cohesive national identity and finding ways to promote economic development despite limited access to land, water and other natural resources. These challenges have been a focus of national policies, leading to concrete initiatives meant to reconcile the past with Singapore's present and future goals.

In order to foster a national identity of multiculturalism, Singapore has implemented unique policies for managing diversity. One of the most prominent examples of how the city-state has accomplished this is its public housing initiative, which offers well-designed, sustainable and well-maintained apartments to Singapore's permanent residents. These homes are managed by the Housing Development Board (HDB), a government organization that has earned international recognition for its initiatives, including the 2010 U.N. Habitat Scroll of Honour Award, one of the most prestigious human settlements accolades in the world. According to the housing agency's 2016 Annual Report, 82% of Singapore's resident population lives in public housing flats, demonstrating the success of this government initiative. In addition to providing the best possible housing for citizens, the agency says its key goal is to build a multicultural community. To accomplish this, the HDB sets quotas for the percentage of people of each ethnic group who are allowed to live within apartment buildings, on every floor, etc. These quotas reflect the ethnic breakdown of Singapore, which in 2016 was 74.3% Chinese, 13.4% Malay, 9.1% Indian and 3.2% identified as "other." By ensuring that neighbors are representative of the broader composition of the country, the HDB promotes the integration of Singapore's diverse citizens. Acutely aware of its role in creating a multi-ethnic society, the HDB emphasized in its 2018 promotional pamphlet that "public housing plays a crucial role in maintaining social harmony." Because of that, the agency aims to create "a living environment where Singaporeans of different races and socio-economic groups have opportunities to come together, mingle and bond as a community."

The second historical challenge that Singapore has sought to address is the absence of a strong economic base on the island. During colonial times, Singapore was a trading port due to its strategic location, but no local industries were developed within its boundaries. On the eve of its independence from Malaysia, the city-state's economic prospects seemed bleak. In order to break from the past, economic development became a top priority for the government. Singapore encouraged multinational companies to establish their Asia headquarters in the city-state by offering corporate incentives and leveraging the fact that English is an official language in the country. To promote entrepreneurship and innovation, the government created funds such as Temasek and Vertex, which supplied the necessary capital to help early-stage startups grow. Innovation was encouraged in all aspects of the economy — from supply chain logistics to natural resource sustainability.

Because Singapore relied on Malaysia for the majority of its potable water, it focused on developing alternative sources. With the help of Israel, Singapore established chemical treatment plants that turn sewage into clean potable "new water." Additionally, the government built the Jurong Innovation District to ensure that companies working on projects in Singapore were in close proximity for easy collaboration. These initiatives transformed the nation from a port to a global economic powerhouse. According to World Bank data, Singapore's GDP was $704 million in 1960 and grew at an exponential rate, reaching $324 billion in 2017. Former World Bank Group President Robert B. Zoellick commended the success of the city-state: "Singapore has been a real-world practitioner of a dynamic approach to development. Its relentless spirit of policy and economic innovation keeps the country at the cutting edge of thinking about the next generation of challenges."

Conclusion

South Africa, China and Singapore are healing the hurts of the past in three distinctive ways. South Africa is working to manage the social repercussions of apartheid and the need for a unified nation through affirmative action policies; China is addressing historical humiliations from the West through a strong innovation ecosystem and continuous pursuit of self-reliance; and Singapore is investing heavily in policies that promote economic growth and foster a national identity of multiculturalism. In each of these examples, the state plays an important role in reconciling history. Without the support from the federal government, housing and economic progress would not have developed at the same pace in Singapore and China, respectively. On the other hand, social change in South Africa would not have been possible without the rise of the ANC party. To be sure, these countries have a long road ahead before full reconciliation is reached, but the social and economic indicators discussed in this article show they are well on their way.

This article was written by Svilena Bochukova, Christina Chang and María de Lera, members of the Lauder Class of 2020.

The Impact of Low Social Capital in Russia

When mistrust becomes institutionalized, no part of society is left untouched. In Russia, this lack of trust has led to remarkably low social capital. This article sheds light on how low social capital affects the business world and prevents Russia from reaching its full economic potential.

The Russian Federation boasts the highest literacy rate in the world, a strong educational system, remarkable scientists and mathematicians, and a skilled workforce, according to the Organisation for Economic Co-operation and Development. These achievements, however, do not translate into success on economic or social dimensions, such as growth in gross domestic product or quality of life. Low levels of social capital may explain this gap between Russia's expected and actual performance across these dimensions.

Robert Putnam, a leading scholar on social capital theory, defines social capital as "the collective value of all 'social networks' [who people know] and the inclinations that arise from these networks to do things for each other ['norms of reciprocity']." These social networks and norms of reciprocity can exist between formal and informal contacts, and can impact the level of trust placed in public institutions and businesses.

Across most measures of social capital, including the Legatum Prosperity Index, Russia ranks in the bottom third of all countries. Only 10% of Russians would feel comfortable voicing their opinion to a public official. These metrics are closely tied to levels of corruption and the strength of civil society. On Transparency International's "perceived level of corruption in the public sector," Russia received a score of 29 out of 100, where 0 is highly corrupt, and 43 is the average score. Meanwhile, Russian civil society continues to struggle as a result of government pressure and threats to freedom of expression.

The impact of low social capital on economic and social well-being in Russia can be better understood by examining the effectiveness of networks and norms of reciprocity at individual, group and societal levels. At the individual level, low social capital in Russia is connected to the widespread belief that society is structured unfairly, so individuals must devise ways to protect themselves and their families from exploitation. Keith Warburton of World Business Culture, a consultancy, said that in matters of personal security and commerce, Russians generally prefer to take matters into their own hands instead of relying on laws, regulations, contracts or other societal structures. Wealthy property owners hire bodyguards, drive in armored vehicles and live within the confines of concrete walls. Middle-class Russians opt for a set of imposing steel doors (with a standard set of three or more distinct locks) and a vehicle dashcam to avoid unjust implication in roadside incidents. Irrespective of social class, Russians accept the securitization of their society, and they willingly present their passports to officers upon request (such as on university campuses).

In an exchange of goods or services in Russia, each side often defaults to thinking that the other is trying to cheat.

These low levels of trust extend into everyday customer-vendor relationships. In an exchange of goods or services in Russia, each side often defaults to thinking that the other is trying to cheat. A weak tradition of customer service combined with this mistrust fosters a marketplace exchange fraught with conflict. In a June 2018 interview about these customer-vendor dynamics in Moscow, one Russian e-commerce customer reported an over-the-phone shouting match with a deliveryman. This argument resulted from a miscommunication about who would be home to accept and pay for a package. The conflict could not be resolved, and the package was never delivered. In another interview in June, a Korean World Cup tourist reported being asked to pre-pay for his room in a Moscow flat (with Russian rubles) prior to his arrival in the country. He had to transfer money to a Moscow-based agent who agreed to pay on his behalf. In the absence of trust, even the most routine person-to-person commercial exchanges present challenges and inefficiencies.

Unable to trust strangers, Russians often rely on networks of family and friends to get things done. Tasks such as processing a passport, scheduling a medical procedure, renting an apartment, getting a mortgage or remodeling a kitchen are easier to accomplish with a well-placed colleague who can help remove roadblocks. As such, most Russians engage in what could be considered small but frequent acts of bribery in order to smooth out the inefficiencies imposed by society.

Unable to trust strangers, Russians often rely on networks of family and friends to get things done.

Unfortunately, a connection-laden approach does not always lead to optimal outcomes. According to Paul Stronski, senior fellow at the Carnegie Endowment and longtime analyst of Russia and Eurasia, "Placing all of your trust on personal connections leads to a fractured type of society. If the highest member of your network gets into trouble with the law, everyone lower down suddenly also has a problem." A society with higher levels of interpersonal trust would leave individuals less vulnerable to the risks inherent in relying on a small network.

Distrust Spreads Across Sectors

Low social capital at the individual level spills over into government-business and government-individual relations, and offers insights into Russia's entrepreneurial environment and broader economic development. The personal networks that help individuals accomplish routine tasks in Russia become indispensable in business. Although knowing key stakeholders is important in businesses around the world, in Russia, the absence of trust in markets and institutions leaves personal networks as the only vehicles for securing capital and facilitating successful operations. Irina Shvakman, the founder of Revo Technologies LLC, a Moscow-based financial technology startup, confirmed that without personal networks, she would not have known how to handle certain financial and operational challenges.

Much like customer service, securing financing in a capitalist context is a relatively new concept in Russia. Resources have traditionally been distributed based on connections, not merit. After the 1991 collapse of the Soviet Union, it was the people in the right positions with the right connections who gained control over major Russian assets. In the early 2000s, a similar redistribution of wealth allowed people close to newly elected President Vladimir Putin, namely the Petersburg clan, to become billionaire businessmen. Unfortunately, these redistributions of wealth through government connections have signaled to the average Russian citizen that securing the financing needed to start a business is impossible without the right personal network. In an article, Warburton wrote that "networking and extended interpersonal allegiances are essential to successful business, and the importance of resource allocation to ensure the development of good quality relationships should not be underestimated."

Once an individual secures capital and starts a business, he or she faces another challenge: operating under the onerous scrutiny of local, regional and national governments. In an environment of bureaucratization, weak rule of law and ambiguous, often contradictory legislation, businesses are vulnerable because at any moment they can be found to be operating outside of the law. In order to succeed, most Russian companies operate under the protection of a government official referred to as a krisha, which translates to "roof." The krisha enables business activities to benefit specific companies through the manipulation of legislation. In other words, companies with a krisha are free to push the limits of the law. According to game theory, the study of strategic interactions between rational decision-makers, this behavior is rational because each company operates under the assumption that its competitors are doing the same. This strategic behavior both enables and reinforces a lack of transparency in legal and commercial structures in Russia. In fact, Transparency International reports that 84% of the largest companies in Russia, accounting for 70% of national income, rank low in transparency. Without a shared commitment to transparency, trust-building outside of personal networks is a lost cause in Russian business. According to Stronski at Carnegie, this lack of group-level social capital and reliance on personal networks of protection "stymies entrepreneurship and startup culture. You see some of Russia's best and brightest leave for Silicon Valley, the Baltics and Israel."

The Systemic Origins of Distrust

The phenomenon of low social capital in Russia can be explained through geographic and historical lenses. According to Mikhail Moshiashvili, professor at the Higher School of Economics in Moscow, Russia's vast geography and low population density make it difficult to build networks and practice social reciprocity outside of a small network of immediate friends and family. Even just connecting with fellow Russians scattered across thousands of miles and 11 time zones has only become possible with the advent of modern communication technology.

Poor infrastructure is one the biggest constraints for the movement of Russians within the country. Given the size and rough climate, it is hard to build an efficient transportation system. Additionally, the poor quality of roads is a classic issue in any conversation related to problems of Russia. Anecdotally, Russian citizens who moved to Moscow from smaller cities indicated that most people from smaller cities are reluctant to relocate.

This geographic dispersion is reinforced by government policies that have for centuries kept Russians tied to the land (e.g., serfdom), relocated populations to far-flung parts of the empire (e.g., imperial efforts to settle Siberia) and made voluntary relocation administratively difficult (e.g., registration by place of living). The policy of registrations, while it has eased since the fall of communism, impeded the free movement of people in Russia. For example, if a Russian citizen living in the town of Samara decides to move to Moscow, he or she must notify local authorities. Without registration, internal migrants may face limitations in receiving certain public services.

Registration is just one policy within the strict administrative system that has outlived both the Russian Empire and the Soviet Union and that continues to interfere with the daily lives of Russians today. Such a system has reinforced a me-versus-the-world mentality and encouraged the development of workarounds that undermine the system. These workarounds, sometimes called "little thefts," are so culturally significant that they appear in works of Russian literature, such as Fazil Iskander's "The American and the One Who Thinks About Russia" (Dumayushii o Rossi I Amerikanec). In his 2016 satirical essay, Iskander defines little thefts as engaging in a theft but empathizing with the victim. Little thefts can include falsifying paperwork to get higher benefits from the state and routing capital through an incomprehensible web of transactions to make a living. Iskander writes that everyone in Russia is engaged in these little thefts, and that it is only a matter of scale.

Without a shared commitment to transparency, trust-building outside of personal networks is a lost cause in Russian business.

In such a geographically and historically entrenched environment of low social capital, trusting someone outside of your personal network—the very activity Putnam argues is required for social capital to flourish—becomes a difficult proposition. However, not all is lost. There are steps that government and business can take to improve social capital in Russia. First, the Russian government can increase its transparency and abide by the law to create a fairer system. In a fairer system, trusting someone outside of your personal network becomes less risky because one person can use the legal system to punish the bad behaviors of the other party. Second, Russian companies can be more open about their dealings with the government. According to a report by Transparency International, a lot of companies in Russia do not regulate contributions for political activities and lack anti-corruption policies. The lack of transparency at the business level gives the impression of favoritism and contributes to the belief that the system in Russia is unfair.

Because trust takes years to build, Russia's social capital is not expected to increase significantly in the coming years. But if Russia could build on its accomplishments in education to advance its economic and social well-being, according to Moshiashvili, the country would be well-positioned to excel in the post-industrial world.

In the meantime, in the low social capital environment, business can thrive by offering higher levels of automation, insurance, guarantees and verification. More automation reduces the number of people involved and thus requires less people to be trusted. More insurance, guarantees and verification reduce the risk of trusting companies. For example, in the online rental space, companies can offer a photo and a user verification service so that customers can enter into agreements with confidence that the other party can be trusted. By offering more transparency and stability, such companies can fulfill a market need while building up levels of social capital in Russia.

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Can Technology Narrow the Gaps in China's Education System?

As China moves into position as a global superpower with growing economic strength, it is working to bring its education system up to the same level. The gaps in public-sector education, remnants of the Cultural Revolution, are being filled by a profusion of private-sector growth. This article explores the technological innovations that are helping Chinese students stay competitive and the concerns that have emerged.

China established its first form of public education in the Han dynasty around 200 B.C., guided by Confucian principles that the aim of education is to cultivate *ren* (humanity) through *li* (normative behaviors). However, the Cultural Revolution of 1966 brought China's education system to a standstill. As part of the Up to the Mountains and Down to the Countryside Movement, a policy implemented by Communist leader Mao Zedong, educated youths in urban areas were sent to work in agrarian areas, and many universities remained closed until 1972. As a result, illiteracy rates soared as high as 41% and continued for years. But since the revolution ended in 1976, China has rapidly reformed its education system through a mix of policy and infrastructure investments that have powered its rise to the second-largest economy in the world.

Despite the presence of several top Chinese universities in the global rankings, the education system remains unable to meet the demands of economic development. Unequal access to education persists between urban and rural regions, and middle-class parents spend large portions of their household income on services to help their children succeed in the hyper-competitive Chinese education system. The gap between public education supply and demand has given rise to a burgeoning private industry dominated by education technology companies that provide services outside of formal schooling. The digitization of education in China has increased the delivery of high-quality, personalized learning products to millions of Chinese citizens whose needs were previously unmet by the formal education sector, but it also raises questions about exacerbating inequality and an overheated education technology investment landscape.

Nonetheless, the Chinese government and the private sector remain steadfast in initiatives to digitize education in the country. The private education market in China is estimated to grow from $260 billion in 2018 to $330 billion by 2020, according to a study by L.E.K. Consulting. In an article about the study, online platform Consultancy.asia noted that, "With the world's longest-ever period of sustained economic growth and an increasingly affluent urban and cosmopolitan population, Chinese parents are turning to private education at an unprecedented rate."

The gap between public education supply and demand has given rise to a burgeoning private industry.

The Government's Role

Understanding the importance of technology to contemporary education, the Chinese government has upgraded infrastructure investments and improved broadband connectivity in schools across the nation. As part of China's 10-year development plan for Information and Communication Technologies (ICT) in Education, the government seeks to boost internet speeds in rural schools to be on par with major cities by 2020. To achieve this goal, the education ministry has signed a cooperation agreement with China Unicom, the country's second-largest mobile network operator, to provide cable service to schools in towns and rural areas, according to the South China Morning Post.

Provinces such as Jiangsu have invested heavily in hardware upgrades. As part of the Medium-Long-Term Education Reform and Development Plan for Jiangsu province from 2010-2020, Jiangsu implemented new technology throughout its school sector, acquiring computer hardware and software for the school system and standardizing school-wide networks across the province. According to a 2016 report by the Organisation for Economic Co-operation and Development titled, "Education in China: A Snapshot," the effort has benefitted students across socioeconomic strata. "Within networks, students and teachers have access to e-learning study trials, as well as an abundance of high-quality e-learning and online learning resources. In order to assist students with the learning curve and help all students regardless of their economic conditions, officials have standardised technology curricula and resources throughout the province," the report stated.

> Middle-class parents spend large portions of their household income on services to help their children succeed in the hyper-competitive Chinese education system.

In addition to infrastructure upgrades, the Chinese government has invested in a digitized long-distance education program for rural primary and secondary schools. Distance education, the education of students who may not be physically present at school, has always been part of China's education strategy due to the country's vast geographical territory and uneven economic development, which make access to physical classrooms a challenge. In 1979, the Central Radio and Television University (CRTVU) was established in Beijing. By 1986, a third of higher education students were receiving television-based lessons. Towards the end of the 20th century, the Chinese government made a push to digitize distance learning by establishing CERNET (the Chinese Educational and Research Network), the first nationwide education computer network in China. To accommodate demand for distance learning, CERNET leverages fiber infrastructure to connect over 100 universities across 29 provincial capitals on a shared network. With plans to incorporate all educational institutions onto the network, the government's investment in CERNET ensures that digital teaching resources are available across all teaching sites.

The Rise of Private-sector Innovation

Despite these infrastructure investments in the formal education sector, gaps in the education industry persist in part because of China's *hukou* (household registration) system. Established in 1958, *hukou* divided household registration into urban and rural to manage labor mobility in the face of rapid internal migration in China. The result is a citizen who is registered in one province but lives in another and is only able to access some social services, such as the college entrance examination, in the province in which they are registered. This limits the ability of students who are registered in rural areas to access better education and more lenient test score requirements in urban areas. Also, students who live in rural areas are not educated by top teachers as high-quality teachers are often reluctant to relocate to rural regions. These trends manifest in college entrance rates. For example, one of China's top schools, Tshingua University, admitted students from only 3% of China's poorest counties between 2009 and 2014. Fudan University, a top university in Shanghai, was 53 times more likely to admit a student with Shanghai residency than a student from other parts of the country, the OCED report stated.

Moreover, as entrance exams and stiff competition impose a heavy academic burden on Chinese students, parents are increasingly willing to spend on informal educational offerings to give their children a competitive edge. More than 9 million students sit for the *gaokao* (National Higher Education Entrance Examination) every year, with the C9 League (an alliance of the nine most prestigious universities in China) only accepting about one in every 50,000 applicants. This has given rise to a broader trend of private-sector, technology-driven companies within the education subsectors of English-language education, after-school tutoring, pre-K education and international content. As the expanding middle class in China has seen disposable income grow at a compounded rate of 12% over the past 16 years, the practice of parents sending children for additional studying and tutoring to alleviate anxieties about falling behind academically has spurred a $50 billion informal shadow education system that supplements the official education system, according to a 2018 article in *Forbes*.

To put the changes in context, L.E.K. Consulting noted that education, which was once regarded as a social good to inculcate values and teach skills to the populace, is now quickly becoming the “ultimate consumer good,” with nearly 9% of Chinese household spending deployed to education, compared with 4% for other emerging markets. This has propelled a lucrative investment landscape in private education: Approximately 75 deals and $7 billion in investments were executed in the education industry in 2016 and 2017, with over 30% invested in the education technology subsector.

The following are four examples of private-sector innovations in education:

1. **Online to Offline:** As a result of the digital divide between China’s rural and urban regions, traditional brick-and-mortar educational giants such as New Oriental Education have increased their online offerings by adopting a dual-teacher model. Leveraging technology such as enhanced video streaming and interactive whiteboards, these companies livestream classes by a main lecturer in a first- or second-tier city to a classroom in a lower-tier city, where a local assistant teacher interacts with students, answers basic questions and grades homework assignments. Compared to lecture videos, streaming provides a more immersive experience with deeper engagement, and the integration of online and offline resources allows this model to take steps toward solving the unequal allocation of education resources in China, according to an article on Technode.com titled, “For Educators, Livestreaming Is a Tool, Not a Business Model.”
2. **Supplementary Tutoring and Digital Homework Solutions:** As a popular Chinese saying states, “Don’t lose at the starting point.” Chinese parents are investing heavily in early childhood education and after-school educational products to give their children an academic leg-up over their peers, resulting in new technological innovation in this subfield. For example, Growth Insurance, which provides assessment, online tutoring and courses for kids aged 4 to 12, raised $23 million in March 2018, and Baby English raised $24 million to provide online English language instruction for children ages 0 to 6, according to GetChina Insights. Once children start elementary school, the focus for parents shifts to technology-enabled after-school services and programs to assuage anxieties about thriving in China’s highly competitive school system. Through “question item bank” products, Zuoyebang and Yuantiku offer large question banks within their system that draw upon all available homework assignments and previous exam questions, enabling children to easily search for solutions to any questions they encounter. After students take a picture of their homework question, the application returns the solution within seconds and builds personalized recommendations such as one-on-one tutoring and online classes based on observing the student’s weaknesses.

> As China becomes increasingly integrated into the global economy, the appetite for transnational education products has grown.

3. **Personalized Content:** As the Chinese middle class continues to grow, Chinese learners are increasingly willing to pay for personalized, high-quality, curated learning content that is relevant to their individual needs. Many firms are responding to this market demand by leveraging artificial intelligence to understand consumer needs and deliver personalized educational services. For example, in 2016, mobile-based language learning company Liulishuo introduced what it calls the world’s first artificial intelligence English teacher app (Dong Ni Ying Yu or I Understand Your English), which utilizes voice recognition and machine learning to deliver personalized learning content and a study plan for students. The founders, who have extensive tech experience, claim that the AI-enabled tutor is able to “triple user’s learning efficiency, and has already delivered lessons to 70 million registered users in 175 countries.” In addition, VIPKid recently partnered with Microsoft to develop an AI algorithm that determines learner engagement. By analyzing students’ facial expressions, speaking samples and eye movement,

the algorithms can determine students' interactivity with online material and personalize content based on personalities and cognition levels.

4. **Transnational Education Products:** As China becomes increasingly integrated into the global economy, the appetite for transnational education (TNE) products has grown. Chinese students comprise approximately 20% of all international students at foreign universities, and to appeal to this new segment of internationally minded consumers, homegrown technology companies have stepped up to offer online tutoring and English-language training. They have also forged cross-border partnerships with international content providers to bring new products to the Chinese market. For example, Beijing-based VIPKid (valued at $3 billion) connects North American English teachers with Chinese students via a live video platform, creating an immersive learning experience for students from the comfort of their homes. Chinese web behemoth Tencent and the Los Angeles-based education company Age of Learning recently partnered to launch an English education program for Chinese children called ABCmouse that integrates with Tencent's online services platform, WeChat, which has over 1 billion monthly active users. As younger Chinese citizens become increasingly cosmopolitan, such products allow them to master skills necessary to lead a culturally richer life and fulfil their international ambitions of studying or working abroad.

Since the end of the Cultural Revolution, the Chinese government has taken measures to upgrade technological infrastructure in public schools to equip students with skills necessary to succeed in the global economy. However, a cultural emphasis on education as a means to a brighter future, coupled with a growing middle class, have propelled a burgeoning market for online education services that supplements the formal education sector. Using advances in video conferencing, data collection and artificial intelligence, education technology companies are bridging the gap between online and offline classrooms, providing after-school services that are highly personalized and increasingly connected with the global economy.

Despite a vibrant online education market in China, several concerns remain about the sector. Firstly, while the government initially invested in the digitization of education in China to mitigate unequal access to education, the rise of digital offerings by the private sector raises questions about exacerbating inequality. Reports cite studies showing that affluent Chinese parents may spend as much as $400,000 to $600,000 on a child's education from early years to university, and high-priced supplementary education segments such as tutoring and test prep remain out of reach for 47% of China's population that does not have access to the internet. Moreover, despite the capital influx of over $49 billion into the education technology space over the last five years, about 70% of operators in the sector suffered net losses, according to a 2016 report by China's Internet Education Research Institute. It remains to be seen if investments in this sector will return the profits that investors expect.

Lastly, it is important to ask what the ramifications of a massive increase in access to education may be. As Damien Ma points out in his book explaining different types of scarcity in China, In Line Behind a Billion People, the prime seats at universities have typically been reserved for urban residents via the traditional education and testing system, which is a powerful force for social stability. Increasing access to and quality of education across the entire country and socioeconomic classes could be a destabilizing factor in society as more and more qualified students compete for a limited number of university seats.

This article was written by Emelyn Chew, Brendan Crowley and Timothy John, members of the Lauder Class of 2020.

Water Management in Cape Town: Lessons Learned from Singapore

Experts around the world warn that the next economic battleground will be water as this natural resource becomes scarce. In South Africa, Cape Town's struggles with drought have drawn worldwide attention to the city's inadequate water management policies. Perhaps the city could find inspiration in Singapore, which has decades of practice in successful water management.

Freshwater, like all other natural resources, is not equally distributed among the world's population. Geography, weather, infrastructure, economics and policy are some of the factors that have led to abundant access to freshwater for some regions, while other areas are mired in significant challenges. As humans continue to proliferate on the planet -- the United Nations predicts the world's current population of 7.2 billion will reach 9.6 billion by 2050 -- the competition for reliable sources of clean water will increase, with some believing it will become the next oil. "All these competing forces lead some experts to believe that water will replace petroleum as the 21st century's core commodity, with nations rich in water enjoying enormous social and economic advantages over those that are not," senior editor Gary Emmons wrote in an article on the topic for Harvard Business School Working Knowledge.

Unfortunately, the outlook is not positive. Recent scientific studies point to the negative impact of global warming on the world's water supply. According to NASA, as temperatures continue to rise, droughts will become more frequent and severe. Between 2014 and 2017, one of the worst droughts in the history of water-abundant Brazil affected the country's main metropolitan regions. Since 2015, the Western Cape province in South Africa has been experiencing declining water storage levels as the consequence of a severe drought. And despite being surrounded by water, Singapore has almost no freshwater resources, forcing the city-state to either import or manufacture most of its water for consumption. These challenges illuminate why sound water management policies are imperative now and for the future.

Students of the Lauder Global Program visited Singapore and Cape Town in summer 2018 to study firsthand the water management practices of those cities. Although facing a similar challenge, Singapore successfully secured access to this important resource, while Cape Town has been on the verge of a complete water shortage for years. The objective of this article is to assess the different paths taken by each city to guarantee access to potable water and to extract lessons from Singapore that could help Cape Town ensure its water supply going forward.

> Water shortage is a recurring theme almost everywhere in Cape Town.

Water Management in Cape Town

Water shortage is a recurring theme almost everywhere in Cape Town. Public bathrooms offer waterless hand sanitizers instead of running water, withered grass has overtaken green fields in city gardens, and pedestrians downtown see "Day Zero" posters on the streets. All these signs impart a sense of emergency and urgency not only to locals, but also to visitors in this popular coastal destination.

Day Zero refers to the day that Cape Town taps will go dry, forcing most of its 4 million residents to collect a daily ration of 25 liters of water per person from 200 distribution points. Running water would only be provided to critical services, such as local hospitals. The date for Day Zero was set to April 16, 2018, then was pushed to May 11, then June 4, then July 9. Eventually, the increased rainfall in early 2018 enabled the city to postpone Day Zero to 2019.

The crisis has adversely affected the region's economy, leading to a 20% decrease in wine production and a 15% decrease in fruit and vegetable production year on year, said Paul Makube, agricultural economist at South Africa's First National Bank, in an interview with CNBC. By March 2018, income after costs for the agriculture sector in the Western Cape had dropped R5.9 billion -- or about 20% -- compared to the previous season, according to a report by South Africa's Bureau for Food and Agricultural Policy. Research by the Western Cape Department of Agriculture estimated that 30,000 jobs will be lost due to the drought in Western Cape, a region that contributes 24% to the gross domestic product of South Africa. In March 2018, ratings agency Moody's downgraded Cape Town's creditworthiness to Baa3 due to concern over the water crisis and the city's fiscal capability to handle the situation.

> Singapore is an example of a country that has developed a successful water management policy.

What is causing the water shortage in Cape Town? Researchers generally agree on two main reasons: population growth and increasing demand. In his piece "What's Causing Cape Town's Water Crisis," journalist Trevor Bohatch wrote that, from 1995 to 2017, the population of Cape Town increased 79% from 2.4 million to around 4.3 million. But dam storage capacity grew only by 15% in the same period. The city's water management policy did not take the possibility of drought into account, even though water restrictions have been imposed several times since 2000 because of periods of low winter rainfall. The construction of the Berg River Dam and other similar projects were considered relatively effective to ease the water pressure. However, as noted by the magazine of the South African Institution of Civil Engineers, these infrastructure projects were not designed for extraordinary natural conditions, such as the drought during 2016 and 2017 in Cape Town.

The water crisis not only impacts daily life in Cape Town, it also hits many critical market sectors for one of the most developed cities in Africa, including health care. An article in Nature magazine revealed concerns that scientists have about the water crisis in a country known for being a "global hub" for HIV and tuberculosis. With the water shortage and the potential switch-off of water access in labs, there will be "consequences to interrupting…efforts to provide reproductive health services to young women at high risk of teen pregnancy and HIV."

There is a question about whether the city or national government should be responsible for solving Cape Town's water crisis. Based on the Water Act of 1998, the national government, through its Department of Water Affairs (DWA) is the public trustee of water resources. The DWA recently announced initiatives to accelerate the schedule to increase water supply to the Voëlvlei Dam, which will pump winter rainfall from the Berg River into the dam. However, the opposing Democratic Alliance (DA) that governs the Western Cape constantly blames the national ruling party, the African National Congress (ANC), for its slow reaction to the drought in Cape Town. Meanwhile, the ANC blames the DA for its failed water management. Under this complicated situation, the water crisis has turned into a political battlefield for both groups.

Besides improving infrastructure, Cape Town has installed its first temporary desalinization plant, currently capable of producing 3 million liters of water per day – or about 0.6% of the city's daily water consumption. At full capacity, the plant is expected to produce 7 million liters of water per day. However, this comes at a cost. According to Cape Town Deputy Mayor Ian Neilson, a liter of desalinized water costs eight times more than a liter of water from the city's dams.

Why Singapore Succeeds at Water Management

A city-state with scarce natural and hydric resources, Singapore is an example of a country that has developed a successful water management policy. Access to water is universal, affordable, efficient and of high quality for drinking and sanitation, according to the World Health Organization. The success of Singapore is attributable to long-term planning and innovative methods, such as desalinization of seawater and recycling of wastewater, sometimes denominated NEWater by the Singapore Public Utilities Board (PUB). Historical factors also explain why Singapore does not encounter significant water issues in the present days.

In 1927, Singapore signed a treaty with Malaya (currently a territory of Malaysia) to access water resources in the Johor territory. Because the agreement represented Singapore's main source of water, the country suffered severely from the Battle of Singapore when hydric supplies were abruptly discontinued. When he took office, the first Prime Minister of Singapore, Lee Kwan Yew, saw this incident as an example of how water supply is fundamental to maintaining government legitimacy and social cohesiveness, so he targeted water self-reliance as one of his main objectives.

Yew's conviction on self-reliance strengthened after Singapore ceased to be a British territory and detached from Malaysia. Although both countries signed an agreement for continuation in 1961 and 1962, Malaysia occasionally threatened to cut water supply or increase prices as a means of pressure. Since then, the city-state developed measures to establish its own freshwater supply, such as the construction of dams and the creation of the PUB. The final step towards self-reliance occurred in 2003, when Singapore decided to terminate the agreement with Malaysia by 2061.

The country determined to tackle its way towards self-reliance in two pillars. First, the Armed Forces of Singapore put invasion mechanisms in place to ensure that water supply is uninterrupted. Should Malaysia curtail water supply, the army is ready to step into Johor territory and seize local water stocks, according to scholar Joey Long in his article, "Desecuritizing the Water Issue in Singapore-Malaysia Relations." Second, the PUB installed the Four Taps policy, representing the four sources of water: local water catchments, water imports, reclaimed water (NEWater) and seawater. Estimates indicate that the country already achieved self-sufficiency assuming average rainfall, as 65% of water demand can be met by desalinization and recycling.

While Singapore likely will meet current water needs by 2061, the government looks to invest heavily in water purification facilities as both population and industry demand grow. The PUB estimates that water demand is expected to double by then, driven by non-domestic demand, which is why the budget for water facilities is S$4 billion from 2017 to 2021, far more per year than the S$7 billion invested in the 16 years between 2000 and 2015.

But the local population will have to adapt to higher prices because costs for producing NEWater or desalinized water are far higher than imported resources. The PUB already increased substantially the prices of water in 2017. It is unclear to what extent the Singaporean government will further subsidize water to consumers as the government shifts its supply towards more costly methods of water sourcing.

> There are several historical factors that determine the water policy outcomes of each country, and those factors must be considered.

Applying Singapore's Lessons to South Africa

Cape Town relied on three major strategies to postpone Day Zero: hoping for rainfall, raising public awareness and education on rational water use, and investing in limited infrastructure investments. These strategies were successful, but had the rainfall not been so generous, chaos could have ensued. Going forward, Cape Town and other South African cities need to develop a long-term plan for water supply and apply some of the lessons from Singapore's water management. It is also important to ensure that industries are not discouraged from coming to the country because of water issues. Three pillars of Singapore's strategy should be adopted by Cape Town.

For the first pillar, Cape Town should manage water with a long-term perspective. During the water crisis, Cape Town resorted to emergency measures to prevent or postpone Day Zero, but a long-term plan to prevent another water shortage is necessary. Three key areas need to be part of that plan. First, more investment in infrastructure such as dams and water distribution tubing should be made a priority, and the government should pursue public-private partnerships with water management companies to help solve the problem. Second, public awareness campaigns and educational programs focused on water conservation should be made part of the general agenda in schools and corporate training, not used only in moments of high distress such as the early months of 2018. Third, Cape Town needs to incentivize the development of water purification and management technologies in its universities, as well as partner with universities and research centers in neighboring countries and cities to develop and translate knowledge into application in the field. This would require providing additional funds to these institutions, and helping individual entrepreneurs and startups through incubators and mentorship programs.

For the second pillar, South Africa also should develop strategic partnerships with neighboring countries. Countries such as Namibia have successfully implemented water re-use for irrigation, as well as reclaiming water for potable uses. It is paramount for South Africa to partner with its neighbors not only to guarantee emergency water supply in times of local drought, similar to Singapore's relationship with Malaysia, but also to incentivize knowledge exchange between companies and public and private institutions.

As part of the third pillar, South Africa should market its efforts to guarantee water supply effectively so that companies do not feel at risk when coming or expanding into the country. This initiative is not directly applied to water management itself, but instead targeted at developing the industrial base, so companies don't hold back on investments because of the risk of a water shortage. Indirectly, additional tax revenue generated from these investments could be strategically invested in water management policies and technologies, fostering the two major pillars mentioned before.

There are several historical factors that determine the water policy outcomes of each country, and those factors must be considered. While Cape Town cannot completely replicate the frameworks used in Singapore's water policies, some actions can be seen as a model of development.

This article was written by Axel Mange, Caio Bartilotti, Danilo Faria and Virginia Zhang, members of the Lauder Class of 2020.

The Challenges of China's Aging Population

China's fast-growing economy has elevated its influence around the world and created a higher standard of living for many of its citizens. But a looming problem is threatening this upward trajectory: China's population is aging faster than its birth rate can support, which poses a problem for both domestic spending and its labor-based economy. This article outlines steps that China's leaders are taking to ensure its future prosperity.

Beijing has certainly become greener with the help of urban parks -- but it has also gotten older. Indeed, many public parks are filled with older and retired Chinese who engage in a variety of recreational activities in their so-called 'park life.' Dancers, tai chi masters and calligraphers -- most of them age 50 and older -- fill the green spaces ranging from small strips next to shopping malls to the expansive gardens of the Summer Palace.

But it's not just in the cities that one sees an aging population. In many rural villages, elderly people have been left behind to tend the fields and for themselves. Younger folks have long left their hometowns, lured away by higher paying jobs in growing cities.

China's population is rapidly aging, a demographic that has drawn the attention of the international community and the Chinese government. According to the United Nations, only 7% of the total Chinese population was older than 65 in 2010, but this figure is projected to grow to 44% by 2050. For the Chinese government, this not only represents a significant loss of labor but also an unprecedented burden on social welfare systems.

Only 7% of the total Chinese population was older than 65 in 2010, but this figure is projected to grow to 44% by 2050.

The biggest cause for concern is the threat that an aging population poses to China's economic growth model. John Lee, an expert on Asian international affairs, explains the source of China's growth in "The Fragile Foundations of the 'Asian Century,'" an article published in The Journal of East Asian Affairs in 2016. He wrote that China has relied on "producing exported products for advanced consumers cheaper, faster and more reliably than can be done in other countries or regions." Manufacturing has been the country's core, and sustained manufacturing needs labor. Now that the factory workers who helped the economy grow are getting older, China doesn't know where to find more of them.

There is no silver bullet for aging, but a well-rounded plan executed in a country that excels in collective action can catalyze China to evolve beyond its export-oriented economy and to capture new business opportunities.

China's Senior Citizen Conundrum

While social scientists cite many possible reasons for the pace of China's aging population, most agree on three common factors: the One Child Policy, rising life expectancy and the gender gap.

Enacted in 1979, the One Child Policy limited urban families to only one child, which rapidly slowed China's population growth. China's population grew on average about 20% from 1950 to 1978. But from 1979 until 2014, there was a dramatic decline in the fertility rate, from 2.8 births per woman to 1.7. This figure is below the 2.1 rate required to sustain a population. In 2013, the government began easing the One Child Policy and anticipated an additional 2 million births, but less than a half-million occurred. Aware of the demographic challenge, the government officially ended the One Child Policy in 2015.

Now that the factory workers who helped the economy grow are getting older, China doesn't know where to find more of them.

China also has experienced a dramatic increase in life expectancy, from 41 years in 1950 to 73 years in 2010, and lower child mortality over the past few decades. Anthropologists have noted that a curious side effect of longer life expectancy is lower fertility, especially in urban areas. In the past, parents would have several children, hoping that most of them would survive to adulthood. As time passed and living standards rose, so did the cost of living and raising a family. It has become more costly to prepare children for education, employment, marriage and ability to support their own families. As a result, economic limitations and inflation may be bigger drivers of China's current low fertility rates than the legacy of the One Child Policy.

Finally, there are fewer women than men in China, resulting in millions of Chinese men who wish to marry and have children but are left without partners. Chinese parents have traditionally had a strong preference for sons due to patriarchal Confucian traditions. In the past, only sons could inherit property, while daughters required the family to pay a dowry at marriage. Sons also carried the family name, ensuring the continuation of the family line, one of the greatest filial duties. Sons could also help with farm work, go to school and had relatively greater opportunities to secure a job. In contrast, daughters were expected to help with household chores and had fewer opportunities for earning an income.

As a result, when some families faced resource constraints, daughters were sometimes given away, or they met with worse fates. While these practices eased with time, the enforcement of the One Child Policy resulted in a surge in gender selection by parents, leading to a gender imbalance. In 1990, 111.4 boys were born for every 100 girls while in 2011, this rose to 117.9 boys per every 100 girls, according to United Nations data. Across the entire Chinese population, there are now 34 million more men than women, and the gap is widening.

Problems Brought by an Aging Population

The graying population creates a fiscal risk as pension shortfalls widen. Recent data from the government's finance ministry shows that pension expenses rose 11.6% to ¥2.58 trillion in 2016 -- and ¥429.1 billion was needed to cover the shortfall. China's retirement system is dependent on a government-run plan that consists of the Public Pension Fund and the National Council for Social Security Fund. Since the system was created in the early 1990s, it has been paying retirees through contributions made by the working population. As the retirement rate rises and fewer people join the workforce, more tax revenues are allocated to pay pensioners. This practice has already become a financial burden on China. Furthermore, public spending on the elderly is very limited; a considerable portion of aged people receive only a small pension, according to the South China Morning Post.

For the economy, the aging population will impact the workforce and economic performance primarily by reducing the supply of labor. Fewer labor pool entrants will not only drive up wages but also profoundly affect productivity. In past years, labor surplus has always been a key driver of economic growth. If China is expected to reach its Lewis Turning Point between 2020 and 2030, it could make China less competitive in labor-intensive industries, according to an article in The Diplomat magazine. (Named after economist Arthur Lewis, this is the point at which an economy fully absorbs its labor surplus. Cheap labor in the economy is replaced by higher worker wages; at the same time, there is a smaller return on investment and reduced profit. Additionally, as the workforce shrinks faster than the total population, consumption will outstrip production eventually.)

Challenges and Opportunities in Health Care

Increased health care spending in the face of aging demographics is inevitable. However, China's current health infrastructure is not equipped to meet future demand. Long wait times, congestion and lack of facilities already plague China's public hospitals. Attrition of medical care professionals, driven by doctors who seek better wages and hours within health care corporations, further decreases supply.

In response, the Chinese government has recently begun to view health care as a source of economic growth. To promote innovation within the industry, China has established state-level regulatory bodies that have discretion in the health care approval process. The government has encouraged foreign multinationals to operate in the domestic market as long as both parties benefit. Medtronic, for example, has built a successful China business because it has invested heavily in local research and development facilities, partnered with local manufacturers and established training facilities for local surgeons.

For Chinese investors, the establishment of private hospitals, which offer alternative sources of medical care, present attractive investment opportunities. Although domestic investors currently consider the biotech sector to be too risky and capital intensive, increased demand for new cures and the promise of greater returns may change sentiments in the future.

Policies and Potential Solutions

The Chinese government is well aware of the potential demographic challenges facing the nation and has experimented with a range of policies and initiatives, including growing the population, enhancing the quality of life for seniors and increasing worker productivity.

At the end of 2015, the One Child Policy was replaced by the Two Child Policy, which allowed urban families to have two children. But the directive hasn't lived up to the hopes of government officials. Although there were 2 million more births in 2016 compared with 2015, the benefits of the new policy faded by 2017. In mid-2018, news reports indicated that the State Council, or China's cabinet, was weighing whether to scrap birth limits altogether. However, experts such as Chen Jian, a former division chief at the National Family Planning Commission, said he believes "scrapping birth limits will have little effect on the tendency of China's declining births."

> Faced with the unstoppable force of time, China has a real opportunity to innovate and to evolve.

China is also trying to increase the working-age population. Although the total population size is expected to remain roughly constant at 1.4 billion over the next 30 or so years, the working population is expected to shrink by approximately 1.5% per year. In an effort to slow the decline and in response to growing pressure on state pensions, China announced in 2016 that it was exploring an increase to the retirement age, which is currently 60 for men, 55 for white-collar women and 50 for blue-collar women. In 2018, some plan details were announced: The retirement age for women would be raised by one year every three years, while the retirement age for men would be raised by one year every six years. That means by 2045, the retirement age for both men and women would be 65, with some sector exceptions.

The government also engaged in a soft-power cultural campaign in 2007, coining the term shengnu, or ‘leftover women,’ to stigmatize and encourage single women over the age of 27 to lower their standards, get married and have children. The term is now a part of the popular lexicon and discussed in talk shows, movies, academic papers and across the internet.

The government is also addressing the needs of the growing older population by setting goals to increase their quality of life through lifelong learning initiatives, improved health care and enhanced pension coverage. A major lifelong learning initiative is the University for the Elderly, offering a wide range of courses from music and languages to photography. First established in the 1980s for retired government officials, the initiative opened to the broader population as demand surged. It has grown to more than 60,000 locations across China with more than 7 million enrolled students. The fee to attend is nominal (most courses range from $20 to $40), and it keeps seniors active.

The government has also enacted a number of policies to promote senior health care and support. For example, the Ministry of Civil Affairs provides funding to subsidize community senior day care centers and long-term care facilities. The National Health and Family Planning Commission has also issued a policy that all large public hospitals are required to have a geriatrics clinical program.

However, unlike the U.S., China does not have government-mandated health insurance specifically for older adults such as Medicare. Instead, many Chinese seniors rely on the state pension system that is already severely strained. Nonetheless, in 2016 the government issued communiques indicating that it had a goal of universal pension coverage.

Lastly, China is focused on increasing worker productivity to offset a shrinking labor force. The return on investment (ROI) on education in China is very high: An additional year of education results in a 10% wage increase. As a result, the government plans to invest more in youth education, including raising the college attendance rate (around 40% today). China also issued a plan to increase research and development (R&D) spending from 2.1% of gross domestic product in 2018 to 2.5% by 2020. There are also many initiatives to increase capital investment in lower-tier cities, small businesses, automation and technology.

AI and Automation

Artificial intelligence innovations represent a significant opportunity to accelerate China’s productivity, a crucial problem as its population ages. China’s strong economic growth has largely been fueled by its expanding labor force, but this momentum could fade away as its working-age population shrinks. In an article for Forbes, senior contributor Kenneth Rapoza wrote that China’s aging population suggests that, at the current productivity level, the country will soon experience economic decline resulting from a shortage of workforce. Hence, China must sharply accelerate productivity growth, and AI could play a significant role in achieving this objective.

AI fuels productivity through automation and by allowing machines to assist or replace people and complete a task more efficiently. A majority of the Chinese economy is comprised of traditional sectors, such as manufacturing and agriculture, in which many routine activities can be automated. According to a McKinsey Global Institute report, “AI-led automation can give the Chinese economy a productivity injection that would add 0.8 to 1.4 percentage points to GDP growth annually.”

Moreover, recent AI innovation enables machines to gain cognitive abilities to complete tasks that require human judgement. Yu Ge, a director at SenseTime, China’s first AI unicorn, explained how machine learning works. “SenseTime’s proprietary deep learning engine enables machines to learn as a baby would. This allows the ‘machine brain’ to solve cognitive problems, like deciding which details to smooth out to make a photograph more appealing,” Ge said during a speaking event at the SenseTime headquarters in Beijing.

However, to achieve success through AI, China must change the companies’ perception about the role of machines in how businesses operate. Forty percent of the traditional sector companies in China do not perceive AI as a strategic priority, according to a McKinsey survey. Hence, while AI could help China improve productivity growth, its potential largely rests upon the speed of adoption.

Older and Possibly Wiser

China is not the first to tackle the problems associated with aging demographics. The world, and certainly China, has paid attention to the travails of Japan, whose government remains optimistic about the issue. When discussing the country's economic performance, representatives from the Bank of Japan like to highlight the positives: People enjoy higher quality of life because working hours per week have dramatically decreased, and GDP per capita has been exceeding that of Europe since 2013.

The Japanese government does not pretend to have solved the problems of aging demographics, but their outlook is a reminder that there might be a silver lining to the issue. Faced with the unstoppable force of time, China has a real opportunity to innovate and to evolve. With a plan in hand, China will not only grow older, but also has a chance to grow richer and wiser.

This article was written by Dayu Li, Jiang Lu and Runqi Song, members of the Lauder Class of 2020.

Rebuilding the French Welfare State

The French government is working to overhaul its welfare system, and key to that reform is finding new ways to support the private and social enterprises that contribute to it. This article looks at what makes France's welfare state unique among nations and how the country is working to make it better.

French President Emmanuel Macron, who took office in 2017, recently announced that he plans to "build the welfare state of the 21st century." While this idea was well-received in France, it is hard to imagine such a statement being applauded by audiences in other parts of the world. The idea of a welfare state often carries a negative connotation, implying strong government intervention and little room for businesses to innovate and grow.

> The French are proud and protective of their long-standing welfare system.

In France, however, the welfare state has a more positive connotation -- it is used to describe a state in which the government supports its citizens through a variety of publicly funded programs. The French are proud and protective of their long-standing welfare system; when Macron recently announced his plans to change current laws and regulations, protests erupted around the country as the French feared the destruction of this system. One aspect of this social or welfare state that is often overlooked is the role that social enterprises play in the ecosystem. In fact, France relies heavily on private enterprises, which make up a significant portion of the economy, to support its social goals.

Social Enterprise Plays an Important Role

As a nation, France is unusual in that it designates a sector of the economy to social objectives. There is the public sector, the private sector and the social solidarity economy (ESS), which is counted as separate from the others. For an enterprise to be included as part of this sector, it must fulfill the following three obligations: to pursue a goal other than sharing of profits; to be democratically governed; and to be managed according to the principle that profits are reinvested to maintain or develop the enterprise. There are five main areas that make up the ESS sector: the arts, sports, education, social impact, and financial and insurance activity.

Following a law adopted in July 2014, the ESS sector is a regulated part of the French economy. It includes cooperatives, foundations and even commercial companies that respect these conditions. It also includes associations, a very French concept in which any group has the right to gather around a common goal without seeking profits. It is here that the involvement of the French state in civil society and community life is most evident. Associations are described as interlocutors, auxiliaries and even substitutes of the state for the people.

Nearly 78% of the ESS sector is made up of companies that have fewer than 10 employees, which can give the impression of an exclusively small, structured sector. Establishments with more than 250 employees are few compared to the private sector, accounting for about 12% of ESS employees. These companies are mostly in the insurance and health sectors. The fact that the ESS sector is spread throughout France is also key. For example, only 20% of foundation headquarters are based in Paris.

Companies wishing to be part of the ESS do so in order to put emphasis on their values and mission. They also have the opportunity to access specific types of financing reserved for enterprises in this sector from both the local and national government. If a company wants to go even further, it can apply to become an ESUS company (Enterprise of Social Utility). These companies are identified as those with strong social impact responding to specific social needs. As such, they are able to access more funding and tax benefits. One more criterion is that they need to adhere to a policy where the wages of the five best-paid employees do not exceed five times the lowest-paid employee.

ESS Sector Promotes Social Innovation

What is the key value-add from the ESS for French society? This is a sector that includes many different economic industries, from arts to insurance and financial services. Nonetheless, according to a social barometer run by the syndicate UDES (Union for ESS Employees), most of the entrepreneurs and employees who work in it share a certain characteristic: the drive to generate social impact. This drive is crucial in the generation and development of innovative social interaction models. This translates into new solutions from the private sector that help solve social problems traditionally addressed only by the government.

According to Emmanuel Rivat of Agence Phare, a consultancy focused on measurement of social impact for ESS and other enterprises, measuring the impact of the whole sector in the French economy is hard. Most measurement initiatives focus on the impact of a single company on a certain community, and no broad study has been conducted to assess the overall impact of the sector. While economic impact is relatively easy to measure, social impact is not. There is no single key performance indicator (KPI), such as value added or gross domestic product that can be applied to social innovation.

One ESS example is Kodiko, a young company that aims to facilitate the job search process for refugees. Created by Cécile Pierrat Schiever and Maÿlis Dupont, the initiative connects people who have recently received refugee status with professionals from partner companies who volunteer to be part of the program. The professional, usually at the level of coordinator or above, helps refugees structure CVs, develop a network and prepare for job interviews. Founded in 2016, Kodiko has helped 100 to 200 refugees per year. It's an admirable result, but still far from the 32,000 working-age people who received asylum in France in 2017 alone.

The Challenge of Scaling

While companies in the ESS sector demonstrate meaningful results, the impact of their work is typically limited to a specific geography or community. Kodiko has this problem but it is not unique to the company; it is the biggest challenge of the ESS sector. Although rich in innovative solutions, social enterprises rarely grow in scale, remaining highly regionally focused and small in size. Exacerbating the problem, the government has reduced its share of support for the sector from 34% of the budget in 2005 to 25% in 2011, according to the last report from INJEP (National Institute for Youth and Popular Education). There are indications that government investments in the sector are still going down. In the Île de France region, for example, the dedicated budget to ESS decreased by 36% in 2016 alone.

Many different actors have recognized this challenge. At the beginning of 2018, the French government set up an initiative called French Impact to address the need to scale. The government has built an accelerator for social innovation in order to bring regional solutions to the national level. According to BNP Paribas, one of the backers of the initiative, French Impact "covers a full arsenal of financial incentives set to mobilize €1 billion in public and private funds over five years, assistance programs aiming to unify the entire sector's stakeholders and supporters under the same roof, and a digital platform." It is too soon to evaluate the ambitious program's impact. However, Christophe Itier, the High Commissioner for Social and Solidarity Economy, stated that the selection of 22 projects to benefit from French Impact "embodies a paradigm shift for the social and solidarity economy as they are based on unprecedented government mobilization."

> As a nation, France is unusual in that it designates a sector of the economy to social objectives.

La France s'engage is another initiative created by the French government, this time under the leadership of former President François Hollande. With a much smaller goal, the organization mobilized €50 million from 2014 to 2017 to reward the most innovative social impact ideas and help them to grow. With the change in government in 2017, the initiative became a foundation devoted to the same mission, rewarding the 15 most innovative ideas with prizes from €50,000 to €300,000 each year. Although small in size, the group estimates that it has already benefited more than 3 million people directly.

Comparing the U.S. and French Models

According to think tank Urban Institute, nonprofits accounted for 5.4% percent of U.S. GDP in 2013. Despite its high number of nonprofit organizations, America does not have a specific ESS sector like France. During the Barack Obama administration, the White House Office of Social Innovation and Civic Participation facilitated social innovation by harnessing human capital and easing the flow of financial capital. This department employed the Social Innovation Fund, Pay for Success and Program Related Investments. These programs financed nonprofits or businesses pursuing charitable purposes. Since the office's inception in 2009, the federal government invested $352 million in related programs, according to the Corporation for National and Community Service. However, this office no longer exists under the current administration.

> Although rich in innovative solutions, social enterprises rarely grow in scale.

Nonprofits in the U.S. are not a formal part of the federal framework, but those recognized as a 501(c)(3) qualify for a corporate income tax exemption under the Internal Revenue Service code. Once exempt from this federal tax, the nonprofit is usually exempt from similar state and local taxes. If an organization has obtained 501(c)(3) status, any charitable contributions to this entity are tax-deductible. According to the IRS, an organization must be charitable, religious, educational, scientific, literary, testing for public safety, fostering national or international amateur sports competition, or preventing cruelty to children or animals to be eligible for this exemption.

In addition to tax benefits, social innovation in the U.S. can rely on Social Impact Bonds (SIBs). First applied in 2012, SIBs are contracts with the public sector or government authorities to invest in social impact programs. Interest in SIBs have risen due to tight public budgets and rising costs of social services. Under SIB contracts, the government pays the private investors an agreed-upon sum only if it can meet certain goals or outcomes. In the U.S., 20 SIBs have raised $211 million in capital, according to London-based nonprofit Social Finance.

Social innovation in the United States does not only come from nonprofits. There exist many for-profit companies that help society. For example, Warby Parker, which was started by Wharton School alumni, offers a 'Buy a Pair, Give a Pair' program. For every pair of glasses sold, a pair is given to someone in need.

In the U.S., social innovation benefits from lower taxes and less regulation. However, social innovation receives more government support in France through the mechanisms discussed above. In the case of SIBs, lower government support is evident in how the government pays a private entity only if it meets agreed-upon goals or outcomes. While greater independence from the state in terms of funding can be useful and points to greater efficiency, public funding is important to help kickstart new efforts in social innovation. Public funding is particularly important because not all causes have advocates knowledgeable enough to obtain private funding. Moreover, French social innovation is not entirely dependent on state funding. In Kodiko's case, 90% of its funding comes from partner companies.

The ESS sector is a unique model for social enterprises that has been developed and refined in France. It represents a significant portion of the French economy, though the full extent of its impact is difficult to quantify. ESS enterprises have been successful in helping many people across the country, but scale remains a significant challenge for these organizations as solutions are often restricted to a specific population or geography.

The government has already begun working hand in hand with ESS organizations to address this issue through initiatives such as French Impact. Contrary to the U.S. model in which the government plays a smaller role, the French system is built on collaboration between the public and private sector. Macron, a centrist who is pro-business, has said that any reforms to the welfare state must include the business sector or there would be no economic "cake" to share, according to The Guardian. "It's false to think we can protect workers without defending our companies," he said. As issues surrounding government assistance and programs become increasingly important in Europe and other parts of the world, countries may look to France as an example of how to collaborate with enterprises to support their population.

This article was written by Danielle Cerepnalkovic, Jessica Daly, Raphael Mattei da Silva and Shawn Yavari, members of the Lauder Class of 2020.

Understanding the Japanese Private Equity Market

The private equity market in Japan is less mature than in other leading economies but has shown recent signs of encouragement through an increase in total deal volumes over the past couple of years. This article outlines some quantitative characteristics of the market and the unique economic challenges and cultural considerations shaping the domestic industry.

In the late 1990s, Japan witnessed its first private equity corporate buyout. Private equity deals continued to increase through 2007 before briefly shrinking following the global financial crisis. Despite being the third-largest economy in the world, according to Pitchbook and the *Financial Times*, Japan's private equity market remains quite small in terms of total deal volume and value, representing just 1% and 4% of that of the United States, respectively. The average deal size is also typically smaller in Japan relative to more mature Western private equity markets such as the United States; however, last year in a deal led by Bain Capital, Toshiba Memory was sold for $20.6 billion, marking the largest buyout in Japan's history. Previously, Japan's largest deal had occurred in 2016 with the KKR-led acquisition of the automotive parts manufacturer Calsonic Kansei for $4.28 billion. In an industry report, consultants Bain & Company published that Japan currently represents over 10% of total private equity deal value in Asia, and Japan's total deal value in 2017 was 269% higher than the previous average taken over five years, from 2012 to 2016.

Although many believe that the Toshiba Memory sale and overall success of Japan's private equity market in 2017 represents an inflection point for impending rapid growth, deals of that size are unlikely in the short term due to cultural and regulatory considerations. However, many industry leaders believe otherwise, including Jun Tsukaka, founder and managing partner of Japanese mid-market investment vehicle Nippon Sangyo Suishin Kiko (NSSK). In an interview with Private Equity International, Tsukaka said that private equity in Japan is entering a "golden era" as deals under $55 million have performed remarkably better than the flat domestic stock markets from 2006 to 2016. Tsukaka also said that foreign investors are eyeing Japan as company valuation multiples remain in the 7x to 9x range, much lower than the 10x to14x and 10x to 12x in the U.S. and Europe, respectively.

An increasing volume of deals in the Japanese private equity market will be driven by a few key market trends. Richard Folsom, co-founder of Advantage Partners and the first buyout fund in Japan, said one of the areas that will continue to be a focus for his firm is using private equity to turn around distressed assets. In addition to the typical challenges faced by small and medium-sized enterprises (SMEs) in any sector or country, SMEs in Japan have had more difficulty paying back loans because of the termination of the SME Finance Facilitation Act, which provided assistance for distressed borrowers by requiring lenders to renegotiate financing terms. Moreover, SMEs are increasingly going bankrupt due to labor shortages stemming from Japan's years of declining birth rates. Private equity firms can assist struggling SMEs with financing as well as the operational improvements necessary to remain in business.

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The most prominent market trend, and one that distinguishes Japan from other economies, is the lack of succession plans for SMEs. A staggering 99% of all businesses in Japan are considered SMEs, and SMEs employ 70% of Japan's total labor force, according to the *Financial Times*. The average age of company presidents has steadily increased over the past decade to 59 years old. With Japan's aging population and declining birthrate, these presidents have nobody to take over their businesses. Many lack potential heirs, but even those with children find that there is little interest. Many next-generation family members grew up outside of major cities and witnessed the struggles their parents endured fighting to save small businesses in post-bubble Japan. The *Financial Times* estimates that for the next 20-plus years, 40,000 Japanese SMEs will face a succession crisis. The replacement ratio, defined as the percentage of companies that successfully find a new president, has fluctuated between 3.5% and 4.4% since the mid-90s. While lack of succession plans is a phenomenon affecting all industries, the retail, wholesale goods, construction and service sectors are the most impacted.

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Folsom believes that the sale of subsidiaries by large conglomerates, such as the Toshiba Memory deal, will continue to increase and remain a strategic focus going forward. Advantage Partners states that there are more than 250 conglomerates in Japan that each owns 50 subsidiaries or more. Prompted by additional board oversight resulting from corporate governance reform driven by Prime Minister Shinzo Abe, large corporations are under pressure to divest unprofitable businesses. According to a global corporate divestment study by Ernst & Young, more than one-third of Japanese corporations have made three or more divestments in the last three years.

Folsom also said the Japanese PE market is characterized by the concentration of middle-market deals rather than larger ones, the linear rather than exponential growth pattern, and a focus on operational support rather than financial engineering. Before 2016, average deal sizes were closer to $100 million. The years 2016 and 2017 were outliers because the market experienced the largest deals in history.

The linear growth is easy to understand by looking at the deal data in the past years. According to research by Pitchbook, the number of completed deals has grown slowly but steadily, from one in 2000 to 100 in 2013. But the trend after 2013 seems to be hinting at the potential of exponential growth: the completed deal size skyrocketed to about 230 in 2014 and continues to increase. Thanks to the history-making deals mentioned earlier, the market saw significant increase in deal value. Whether the upward momentum is going to keep up will determine whether the linear growth will transform into exponential growth.

Compared with the PE market in the United States, the Japanese market does show a focus on operational support rather than financial engineering. In the U.S., the traditional PE firm approach is to tweak the earnings before interest, tax, depreciation and amortization (EBITDA), because EBITDA is the top level of cash flow that can be available for all the reinvestments needed for businesses to grow and provide returns for owners. Hence, it is the metric PE firms care about the most. As a result, traditional American PE firms focus on massaging this number and push for deals that bypass traditional exit routes. Even for the companies that claim to focus on organic growth, their means to that growth is usually optimizing the cash-flow cycle, accessing asset-backed loans or tax planning.

However, Japanese PE firms, especially the ones focusing on middle-market deals, are taking a more fundamental and thorough approach in terms of operational support. United Cinemas is one of the cases Advantage Partners shared with the public. Currently the third-largest cinema complex in Japan, United Cinemas began in 1996 with one location in West Japan. After three major mergers and multiple value-up activities with Advantage Partner's investment, United Cinemas now has 36 locations and 331 screens around the country. The value-up activities initiated by Advantage Partners included strengthening the management systems, revenue enhancement and cost optimization. Detailed strategies included acquisition, new cinema openings and theater improvement, with a focus on long-term return. This level of operational support is rarely seen in the American PE market.

Integral is a Japanese private equity firm best known for investments that revitalized high-fashion brand Yohji Yamamoto. An examination of the firm's practices sheds light on the more distinct characteristics of the country's PE market. Integral partner Reijiro Yamamoto said Japanese business owners have a strong tendency to believe only in investors who will sweat and bleed with them. Folsom agreed, saying, "It is hard for them to let the business go."

The story behind Integral's investment in Yohji Yamamoto is long and even a bit dramatic. In 2009, Integral's special purpose company acquired business from the old Yohji Yamamoto Inc., which filed for bankruptcy, under the unique approach called hybrid investment. This approach consists of both principal and fund investment. During this process, the company and previous owner Yohji Yamamoto established a tight bond, agreeing to strengthen the brand for the long term. As part of the transaction, Yamamoto was kept as CEO and a portion of Integral's investment stays with the company indefinitely.

Another characteristic that distinguishes Japanese investors from others is their willingness to accept a low double-digit return on investment. This is different from some of the Chinese investors who are looking for larger deals with beyond 20% return in the overheated Chinese PE market. But it is not hard to understand since the Bank of Japan is maintaining its short-term interest target at minus -0.1%, which makes a 10-15% return look very favorable.

With its distinct characteristics, Japan's PE market faces distinct challenges. Different from the markets anywhere else, Japan is very special and isolated. It has a strong relationship-based culture, the language barrier is high, foreign investors may be viewed as vultures, business owners are culturally conditioned not to ask for help, and the understanding and implementation of corporate governance is generally lacking. Even if investors would like to bet on the potential of the Japanese market, there is no guarantee that they won't change their minds when they compare it to other opportunities present in the Asian market as a whole. When asked for his thoughts on the market, Allan Kwan, venture partner in Oak Investment Partners, said he is concerned about the cultural perspectives mentioned above, as well as some other success factors, such as financing, legal and shareholder structure, operations and post M&A management. More specifically, he noted the availability of debt, syndication process, speed of execution, commercial banks' risk appetite, as well as availability of local operating partners (industry experts), the liquidity of the local stock market and returns on potential relisting.

Regulatory factors also play a role. In 2005, the Ministry of Economy, Trade and Industry (METI) announced the "guidelines to defend against hostile takeover to protect the corporate values and stake holder's shared interest," which requires the buyouts to "benefit the stakeholders and create corporate values, disclose before transaction and make decisions that reflect the needs of the stakeholders, and demonstrate the necessity of transaction." Buyouts that failed to meet these requirements would be seen as hostile and face significant pushback from the government, even if it was hard to provide proof to meet such requirements.

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Fortunately, in recent years, the government has loosened such requirements to make buyouts easier. A director in METI said he does not see the government introducing new regulation in the PE market; rather, he sees new economic growth opportunities to be brought by buyout deals. When talking about the challenges facing the PE industry, he mentioned the lack of talent can be one of the pain points. The Japanese PE market is new, and not many local talents understand how this industry works. Meanwhile, overseas trained veterans in PE may not fully understand how the Japanese market functions and hence are not able to perform at their best.

When talking about the outlook of the Japanese PE Market, the most important question to ask is whether it can truly become a "golden era" in the coming years. Although deal values have been increasing and history-making deals have occurred in the last two years, there is no guarantee that the momentum will continue or that past success will be replicated. Industry leaders seem to represent divergent viewpoints. With the challenges listed above, perhaps the actual boom in Japan's PE market has not yet arrived.

This article was written by Clifford Cohn and Ariel Wu, members of the Lauder Class of 2020.

Privatization in China and the Road Ahead

In a short span of 40 years, economic reform in China has brought great wealth to the nation. It provided citizens with greater access to education and upward mobility in employment, and it opened up the market of consumer goods. This article explores the continued impact of privatization in China and the path ahead.

Over the past 40 years, China has dramatically transformed itself from an agrarian society to become the world's second-largest economy, largely driven by its decision to open its economy to global markets. China's economic growth has been unprecedented since reforms were initiated in 1978, shifting from a centrally planned to a market-based economy.

China's transition from central planning to privatization was gradual, with a huge residual of state influence.

After the Cultural Revolution ended in 1976, the Chinese economy was on the verge of collapsing and many citizens were living in abject poverty. Two years later, the Chinese government decided to reduce its role in planning, its ownership of most industries and its overall direct control in order to introduce more free-market mechanisms into the system.

China's transition from central planning to privatization was gradual, with a huge residual of state influence. Many state-owned enterprises continued to exist and stay competitive with private companies. This reduction, but not total elimination, of governmental control over the economy enabled the government to utilize any surplus generated and to dedicate a significant proportion of national economic output to meaningful investments.

Since then, the growth rate of China's gross domestic product has averaged nearly 10% a year, which is the fastest sustained expansion by a major economy in history, according to World Bank statistics. China is now the second-largest economy by nominal GDP and is the largest contributor to world growth since the 2008 financial crisis.

China's rapid growth and its shift away from a centrally planned economy had a tremendous effect on many aspects of the lives of everyday citizens. This article will examine China's transformation in the arenas of education, employment and commerce.

Effects of Educational Reform

For many Chinese citizens, the opportunity to continue their education after the political reforms in the post-Mao era became an important driving force in their lives. Chinese university study had been suspended for much of the 1960s as fanatical Cultural Revolution policies ostracized and condemned professors and researchers in higher education, depriving a number of talented young people the opportunity to pursue their schooling. It was not until after Chairman Mao Zedong's death in 1976 that colleges re-opened their doors in earnest, and a wave of eager students swarmed to entrance exams, many desperate to make up for the time that they had lost.

Robert Zheng, a professor of educational psychology at the University of Utah, grew up in Shanghai and attended Fudan University in the 1980s. He recalled that period of his life as marked by great momentum and fervor: "At that moment I was very excited to hear the policy change in university admission where the outcome of entrance examination was the sole criteria for admitting new students. Out of intense competition (the ratio of admission was 1 to 29), I became one of the lucky ones who had the privilege to study in universities. We were like sponges sucking in knowledge, trying to make up the time that we lost. During that period, there were no weekends and breaks for us. All the spare time was spent in the library and classroom. We studied like crazy. We saw hope we had never seen before, and we saw opportunities looming on the new horizon."

During the Mao era (1949 to 1976), the list of topics endorsed for academic discussion was extremely limited. Mostly, these subjects centered around political, cultural and social loyalty -- loyalty to Communist principles, to the Communist Party of China, and perhaps most saliently, to Mao himself. School was less a place for learning and more a forum to demonstrate one's devotion to the cause. Ideas were indoctrinated, not challenged, and any discussion could pose a serious threat to personal status or welfare.

The fragmented history of the Chinese education system created a ripple effect that lingers in modern-day China. While the national entrance exam, which is administered yearly to all high school seniors, has somewhat standardized college opportunities across the country, bureaucracy and corruption continue to run rampant. For families with enough money and influence, admittance to prestigious universities can be arranged through guanxi, or back-door connections.

A graduate student at the Beijing Foreign Studies University who came from a rural province in Wuhan, China, said her experience with the college entrance exam was both stressful and exciting. "I knew that if I could only attain the required scores, I would be able to change the course of my entire life," said the student. "But because we were from the countryside, it was harder to get into prestigious schools in Shanghai or Beijing."

China organizes its college admittance process through an ostensibly objective system of points grounded in the results of the national college entrance exam. Upon closer inspection, however, the required threshold for certain universities varies depending on a student's geography and ethnic status. Those who hail from more developed cities enjoy hometown favoritism for top-tier colleges, while students from less developed rural areas continue to face a double barrier of a lower-quality primary education system and a higher point threshold for the nation's best universities.

Ultimately, the process of privatization has created a troubling paradox within the Chinese education system. Meritocracy is touted as the sole criterion for secondary education access, but connections, wealth, geography and other factors still play important roles. Are these discrepancies unavoidable failures of an imperfect capitalist system that inevitably replaces a socialist one? Compared to the educational systems in other countries, it seems clear that China still has substantial room for improvement in this sphere.

Shifting Employment Patterns

Privatization efforts started in the 1970s, but it was not until the 1990s that the transformation had significant impact on the employment sector. The economic reform in the late 1970s aimed to support China in technological advancements and productivity improvements. Chairman Deng Xiaoping's vision for an open market economy, encouraging foreign investments and increasing productivity, led China to a new system called "socialism with Chinese characteristics." Throughout this gradual transformation, the practice of guanxi seeped into the employment market as state-owned enterprises (SOEs) transformed into private companies.

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From the mid-1950s to the late 1980s, jobs were assigned based on a bureaucratic allocation of labor. Central economic planning monitored the movement of labor through a residential permit system (hukou) to plan for labor quotas. These quotas were subsequently distributed to recruiting organizations that worked under government jurisdictions. The recruiting organizations worked with schools and districts to hire a designated number of workers.

Despite a bureaucratic control on state job assignments, the use of guanxi played an essential role in the allocation of urban jobs. Yanjie Bian, professor of sociology at the University of Minnesota, conducted research in Tianjin in 1994 and found that 42% of people used guanxi to find their first job assignment. During this time, the practice of using family connections to find a desired occupation was the societal norm, not the exception. Weitong Fu, a daughter of well-respected politicians in Nanjing, noted that "while the new educational system allowed me the opportunity to choose my major in international business, my family used our guanxi with the international trade bureau to help me land a preferred job assignment." Relationships and connections are so important in the Chinese culture that the Maoist ideology for a centrally planned economy to promote socialism essentially backfired.

Even though privatization efforts started in the 1970s, it took nearly two decades for state job assignments to be phased out. China's privatization was slow and deliberate because of the effects of layoffs on unemployment rates. Unemployment was particularly significant in areas with many poor performing state-owned enterprises (SOEs). For example, the Dong Bei, or Northeast area of China, experienced large-scale layoffs that led to poverty in the region.

China continues to struggle with the spillover effects of privatization on education and employment.

Bulent Gultekin, Wharton finance professor who oversaw privatization programs in Turkey and Poland, said, "Chinese government figures indicate that 30 million people have been laid off at state-owned enterprises and more than 8 million have been unable to find new jobs." China witnessed the societal breakdown from the collapse of the former Soviet Union and proceeded deliberately with its own transformation. Another important attribute was many SOEs were managed by influential Communist party officials who resisted restructuring and layoffs of employees.

Eventually in the 1990s, the employment practice had shifted to an open labor market in which people were encouraged to look for jobs and submit applications. While many sectors became privatized, the government still maintained control of critical sectors including finance, energy, media, education and basic commodities. It is important to note that guanxi became even more significant.

While companies conducted screening and interviews, recommended applicants were given preferential treatment. Yanjie Bian noted that virtually everyone tried to use their guanxi to attain a desirable work unit, which would offer better working conditions, wages, fringe benefits and housing. For most individuals without guanxi, the opportunities were still limited. Only graduates from prestigious universities who were highly intellectual had a chance to be selected for desired jobs.

Rations and Consumer Goods

During the first three decades of communist rule, China's economy was fundamentally different from the rest of the world. The Chinese Communist Party adopted a centrally planned command economy, modeled after the Soviet Union. All industrial inputs and outputs were planned and regulated by the Communist Party and allocated in accordance to the State Planning Commission.

Many consumer goods, ranging from everyday necessities such as cooking oil to higher-tech products such as televisions, were rationed. Yuling Liu, a finance professional in Canada who grew up in Hubei province in the Central China region, spoke about her personal experience with the system of rations utilized by the central government prior to vast economic reforms in the late '70s.

"Due to production limits, China could not produce enough rice, meat, eggs, grain and cotton for clothing for the population at the time. To deal with this problem, the Chinese government issued ration coupons and allocated them to each family. These coupons did not have any monetary value, and its only real function is to help the government cope with the food production shortages of that era."

The ration coupons didn't only cover food and necessities, but were also used for items such as telephones, refrigerators, bicycles and even furniture. Sixin Li, a professor at George Brown College in Canada who also is from the Hubei province, recalled trying to purchase a landline phone during the early 1990s. "In October 1992, my wife and I were expecting the birth of our daughter. She was our first and was expected to be our only child due to the only child policy. As soon as we knew that we were going to be parents, we tried to get an allocation to buy a telephone.

However, there were only a few hundred available throughout the entire city we lived in, and each cost over a thousand RMB, which was very expensive in the 1990s and equated to several months of our total family income.

"In the end, we still couldn't get access to a phone by the time our daughter was due, and our family ended up using a neighbor's newly purchased phone to get real-time updates from the hospital. Our neighbors were able to get a telephone due to their family's connections to the city's bureaucrats, who were able to wrangle a coupon for their family after several months of waiting. They still had to pay full price, though."

After the massive privatization efforts of the late 1970s into the early 1990s, consumer goods became more readily available. China is now the second-largest consumer nation after the United States, and goods, ranging from necessities to luxury products, are readily accessible and abundant. Pei Wang, a graduate student at the Beijing Foreign Studies University, spoke about the ease with which she can order goods online and have it delivered to her doorstep within the hour.

The stories and conversations with Chinese citizens illustrate a clear distinction between the dearth of durable goods before privatization and the abundance of it now. It reveals the massive transformation undertaken by the Chinese economy over the past four decades. The government used rations to ensure that everyone received their fair share.

The Path Ahead

The Chinese government continues to pursue "socialism with Chinese characteristics," which some argue gives the Chinese government a unique ability to promote capitalist-paced economic development while retaining some control over economic planning. It is clear that China's economy has grown rapidly since privatization began in the late 1970s.

However, many in China continue to struggle with the things that are central to their day-to-day lives, including a fair shot at receiving quality education and obtaining stable employment. Even with the shift from a centrally planned economy to a market-based economy, the importance of guanxi is a recurring theme in the lives of Chinese citizens.

While privatization has brought significant gains to the Chinese economy and created an abundance of consumer goods, China continues to struggle with the spillover effects of privatization on education and employment. Further governmental reforms targeted at specific aspects of Chinese society may be able to improve conditions, but it will require working against the pre-privatization framework that remains deeply ingrained in the Chinese psyche.

This article was written by Tammie Koh, Cindy Li, Liya Mo and Joanna Zheng, members of the Lauder Class of 2020.

Brazil: Financial Inclusion and Innovation in Financial Services

Brazil is the fifth most populous nation in the world and boasts Latin America's largest economy, yet many people still lack access to basic financial services, which limits economic growth. To address that challenge, the government is focusing on improving financial inclusion. This article looks at the various public and private sector initiatives designed to reach that goal.

In the middle of the 20th century, Latin America was poised to be the next story of economic success. In particular, Brazil, with its promising future, looked like a prime candidate to lead the region. As an industrial economy with the fifth-largest population in the world, it had the characteristics of a country that could become a global leader. Unfortunately for Brazilians, the Four Tigers -- Hong Kong, Singapore, South Korea and Taiwan -- led East Asia into a period of unprecedented growth and attracted much of the global capital. By the end of the century, Brazil's economic growth had stagnated, leading one to recall the popular refrain, "Brazil is a country of the future … and always will be."

> The Brazilian government established policies to encourage financial institutions to reach remote customers and low-income areas through the development of banking correspondents

Brazilian politicians created social programs aimed at strengthening the middle class. However, they quickly realized that the country lacked the financial infrastructure to distribute the funds in an efficient manner, given that a large portion of the population did not even have a place to pick up cash gifted by the government. As World Bank Group President Jim Yong Kim has said, "Access to financial services can serve as a bridge out of poverty." Recognizing this need, leaders in the Brazilian government and central bank decided to focus on increasing financial inclusion among the population in order to improve the effectiveness of social welfare programs.

Through governmental policies and programs, Brazil has significantly improved financial literacy, as well as access to and adoption of financial services. In addition, the private sector has reduced transaction costs and transfer times across the financial ecosystem. Thanks to its progress, Brazil was ranked among the "fastest-growing payments markets in the world," according to the 2013 survey by Bankable Frontier and the Gates Foundation. The country also has reached one of the highest levels of "household use of financial services" in Latin America, according to the World Bank. Other countries in the region, such as Mexico and Peru, rely on the Brazilian example to boost their financial inclusion policies. Consequently, Brazil provides a case study on progressive financial inclusion initiatives and developments that may continue to reshape the view on financial services.

The Public Sector Response

Expanding financial inclusion became a priority in Brazil in the 1990s. With access to financial institutions, individuals and small businesses could save, invest and gain access to credit or capital to expand their operations. Financial inclusion also promotes the extension of insurance products to new sectors and opportunities to lower the costs of monetary transactions. According to Renato Jansson Rosek, head of the investor relations and special studies department at the Central Bank of Brazil, financial inclusion is defined as "the process of providing effective access and encouraging the use of financial services by the population, appropriate to their needs, contributing to their quality of life."

The public sector played a pivotal role in Brazil to become a global example for financial inclusion policies. Specifically, the Brazilian government focused on three goals: (i) expanding and strengthening financial services distribution channels, (ii) developing tools to better adapt financial services to the needs of low-income segments of the population, and (iii) improving the transparency and competitiveness of the financial system.

First, the Brazilian government established policies to encourage financial institutions to reach remote customers and low-income areas through the development of banking correspondents. As the responsible entity for regulating the financial system, the Brazilian Monetary Committee modified regulations to allow financial institutions to partner with local stores such as retail outlets, lottery kiosks, pharmacies and post offices to create correspondent partnerships to provide basic financial services in remote regions.

As a result, the number of banking correspondents doubled to 160,000 between 2005 and 2011. These partnerships became a key channel for the Brazilian government to distribute services and cash transfers, including retirement plans and unemployment insurance. This was a significant development given that in the 2000s, the Brazilian government faced obstacles in expanding its Minimum Income Program -- a social welfare program of conditional cash transfers -- to families living in isolated communities due to their lack of access to financial institutions.

These families were below the national poverty line and would benefit the most from government aid, but they could not withdraw cash transfers in ways that were economically or physically feasible. Therefore, the first wave of reforms targeted government regulation to allow Banco do Brasil, the largest state-owned bank, to partner with Correios, the Brazilian postal service, to offer basic financial services. Given the initial success, private banking institutions also established partnerships with local correspondents, which offered an efficient alternative to acquire new clients and cash deposits through a lower-cost medium. While microfinance is not new to Brazil, these types of services were usually offered by nongovernmental organizations that could neither reach a large scale nor make a national impact.

Second, another set of reforms targeted the financial inclusion of lower economic segments of the population. In 2004, the central bank created Simplified Current Accounts, which featured no monthly fees, streamlined processes for opening accounts and reduced paperwork requirements. The federal government also created several programs to expand access to credit. For example, the National Productive Microcredit Program was designed for low-income entrepreneurs, and the National Program for Strengthening Family Agriculture was created to stimulate income generation and improve labor at rural establishments.

Third, the Brazilian government prioritized improving the transparency and competitiveness of financial services. In practice, it led banking institutions to standardize terms regarding bank fees, disclose total costs for accessing credit, and train credit officers and bank correspondents. This simplified the financial system and allowed customers to differentiate among financial products and services, leading banks to increase the competitiveness of their offers.

Forty percent of Brazilians still do not have a bank account or credit card with a traditional financial institution.

The Private Sector Response

While public policies and programs have fueled financial integration within Brazil, the private sector further addressed the costly and time-consuming inefficiencies of the financial services system. Innovative startups and venture builders have reduced transaction costs through tech-focused payment systems (BeeTech), as well as providing access to credit platforms (F(x)), credit cards (Nubank) and personal finances (GuiaBolso). Successes originating from these Brazilian companies may serve to further improve financial inclusion and disrupt the financial services sector both nationally and internationally.

Streamlining cross-border payments systems. MAR Ventures, a São Paulo-based venture builder, invests in hotspots for innovation and builds businesses relying on emerging technologies, such as blockchain, to improve products and services in the financial sector. Among them, BeeTech simplifies and automates cross-border payment processes to and from Brazil across two main products: BeeCâmbio and Remessa Online. Together, both BeeTech products reduce transaction times, charge lower costs than traditional financial institutions, and create a cross-border payment infrastructure to connect businesses and individuals to financial institutions globally. Recently, BeeTech announced a partnership with Ripple to enable same-day settlement for remittances.

Brazil's example of financial inclusion provides a model for other countries to emulate.

Also, MAR Ventures is developing the Tachyon protocol -- a next-generation TCP/IP internet protocol suite and ecosystem on blockchain that has topped more than 2 million transactions per second in its first operating tests with a very low cost per transaction. The first use case for the protocol, according to Alexandre Liuzzi, CEO and founder of MAR Ventures, will be for the payments industry focused on the non-banked population to give them access to several financial services, including a global wallet developed by BeeTech. "We believe that we are at an inflection point where new technologies such as blockchain and artificial intelligence will enable new business models that will better serve both individuals and companies that were poorly served and sometimes excluded from basic financial services such as credit, payment and forex solutions," Liuzzi said. "Our mission is to accelerate the development and adoption of these technologies in Brazil, and soon, in Latin America."

Bringing money exchanges online. Founded in 2014 by Fernando Pavani and Stéfano Milo, BeeCâmbio is the first 100% online platform serving as an intermediary between clients and foreign exchange houses. Users can buy more than 26 currencies online, via WhatsApp, Telegram and Skype, and receive their money at home or at designated exchange houses across 40 cities in Brazil. As of July 2018, seven currency exchange houses participated in the platform, selling more than R$200 million in foreign currencies and saving clients in excess of R$1 million.

Reducing costs for international remittances. Launched in 2016, Remessa Online is the first international remittances platform in Brazil, offering transparency of fees and execution within two days. While authorized as a bank correspondent by the Brazilian central bank, Remessa Online charges US$20 for SWIFT international payment transfers (and zero for most operations), compared with $30 to $115 charged by other financial institutions, and it has an average spread (transaction costs) that is 50% to 75% lower than most banks. As of September 2018, Remessa Online had served more than 100,000 clients with annualized transaction volumes of more than $500 million. Using the new platform, small businesses will be able to pay and receive cross-border payments at a 50% lower cost than similar services offered by traditional banks.

Expanding access to credit. F(x) -- "function of x" -- was founded in 2015 as a digital platform that leverages artificial intelligence to connect small and medium-sized enterprises (SMEs) to more than 140 financial institutions to reduce the time and costs in originating loans. SMEs, which are traditionally underserved by Brazilian financial institutions, currently face wait times of 90 days or more for access to financing, endure high fee spreads and have limited knowledge or availability of financing options. F(x)'s algorithm matches businesses in need of credit with pre-approved financial institutions to increase the probability of obtaining financing.

As of July 2018, R$400 million had been negotiated by more than 400 businesses, resulting in engagements in 90% of cases. F(x) is also developing a platform, with Brazilian Development Bank, focused on credit solutions for small merchants and also is partnering with one of the largest credit/receivables fund managers in Brazil to reach thousands of small businesses through an integrated ERP solution -- a business process management software that automates back-office functions.

Increasing access to credit cards. Nubank is addressing a gap in the consumer credit market. Founded in 2013, this São Paulo-based company is currently the fifth-largest credit card issuer in Brazil. Its first product was a no-fee credit card that is fully managed via a mobile app, targeting Brazil's vast millennial population. In 2017, Nubank also launched a proprietary loyalty rewards program, Nubank Rewards, as well as a digital savings account, NuConta.

Its significant growth is challenging the complacency of incumbent banks, which are rapidly trying to respond by improving their digital offerings and customer experience. More than 16 million people have requested the product since inception, with Nubank surpassing the 4 million active customer mark in 2017 and registering a total revenue of R$566.8 million (3.2 times higher than in 2016).

Nubank reached 1 million customers in two years, far faster than its initial goal of five years. One factor for its success in Brazil was the offer of an accessible credit card alternative in a country known to have one of the highest interest rates in the region. Recently, Nubank was ranked third in Latin America on Fast Company's Most Innovative Companies list. "Nubank's mission is to bring new financial services alternatives to Brazilian consumers -- alternatives that are simple, efficient, and that are able to cut through all the existing fees and complexity of the industry," said David Vélez, Nubank's founder and CEO.

Improving financial inclusion and education. GuiaBolso is a personal finance hub that focuses on providing an integrated online experience to Brazilian consumers to access low-cost financial products and understand their finances. It was founded in Brazil in 2012 by Benjamin Gleason, a Wharton graduate, and Thiago Alvarez, a former senior manager at McKinsey & Company. By aggregating bank account data, credit bureau information and loan offers from banks, GuiaBolso allows its clients to gain better visibility of credit products available in the market and control over their personal finances. This product promotes financial inclusion through two main initiatives: offering competitive products and encouraging Brazilians to save.

Company spokeswoman Yolanda Fordelone said GuiaBolso provides a competitive financing alternative for Brazilians because its interest rates begin at 1.9% per month, compared with traditional bank products that can have an average interest rate of 13% per month. By offering guidance and education to inexperienced consumers, GuiaBolso promotes a savings culture that improves personal finances. The company said the initiative has been well-received in Brazil. After three months of using the app, customers started to save 127% more. "We're delighted to develop an intelligent solution that gives people the complete, precise information they need to make better financial decisions," Gleason said. "Our mission is to improve people's lives and transform the Brazilian financial system." GuiaBolso now has 4.6 million customers in Brazil.

Future Challenges and Implications

As Latin America's largest country in terms of land area, population and gross domestic product, Brazil has historically been seen by foreign investors as the regional leader. Nevertheless, this young democracy has had to cope with growing pains as it strives to find stability amid high growth and development. Implementing welfare programs without an adequate financial infrastructure and experiencing a credit supply shortfall to meet the rising demand for SME lending are two examples of those challenges, which Brazil is working to address. Through a series of investments, the country has paved a path to success in expanding financial inclusion across its population segments and in building a community of startups that are innovating and disrupting the financial services sector.

Going forward, Brazil will face new challenges in fully developing its financial inclusion initiatives and reaching the standards attained by developed countries. Currently, 40% of Brazilians do not have a bank account or credit card with a traditional financial institution. Additionally, Brazil's savings rate of 15% in 2017 is considerably lower than that of countries such as Mexico, with 23%. Nonetheless, today government policies and entrepreneurship in the private sector have positioned Brazil as an example of the successful convergence between public and private initiatives.

The Brazilian experience highlights the importance of creating access points in all geographies, as demonstrated by the success of the banking correspondent program. Furthermore, having the right regulatory policies in place allowed innovation to flourish also through the private sector. Although every country has a unique cultural and political context, Brazil's example of financial inclusion provides a model for other countries to emulate.

This article was written by Monica Ramirez de Arellano, Julian Berridi, Thomas Wright, Eduardo de Haro and Andres Isaza Valencia, members of the Lauder Class of 2020.

China-Africa Relations: Who Is the Real Winner?

Foreign direct investment into Africa from the West has been a long-standing practice. But there's a new investor in town: China. The Asian superpower has been injecting billions into African economies, which broadens the country's sphere of influence in the region. This article looks at the complex relationship between China and Africa.

Africa achieved an average effective gross domestic product growth of 5.4% between 2000 and 2010, according to the World Economic Forum. This strong economic performance, coupled with relative political stability, has turned the continent into an attractive destination for foreign direct investment (FDI), with the United States, the United Kingdom and France as historical major investors. Those countries combined have pumped an estimated $54 billion per year into Africa's economy.

But the continent is increasingly getting the attention of investors from the East: most notably China. Today, the footprint of China's massive investments in Africa, especially in infrastructure, are even visible to unaware tourists visiting the continent. On top of its FDI, China has also substantially assisted the continent in the form of aid and grants. For most leaders on the continent, this new financial attention from the Chinese provides much needed alternatives to traditional, sometimes less accommodating, trading partners.

> From a commercial perspective, China has emerged as Africa's first economic partner.

However, many observers have grown wary of China's interaction with the continent, some viewing it as economic colonialism. This article takes a closer look at the China-Africa relationship through the lens of China's infrastructure investments on the continent.

China-Africa Trade Takes Off

According to United Nations Conference on Trade and Development (UNCTAD), China's investments in Africa rose 300% between 2011 and 2016, growing from $13 billion to $40 billion. The infrastructure sector alone receives approximatively 27% of Chinese FDI, followed by the mining sector. From a commercial perspective, China has emerged as Africa's first economic partner. For instance, the Financial Times estimates Sino-African trade to have risen by a factor of 22 between 2000 and 2014, going from $10 billion to $220 billion over the period.

The issuance of Chinese loans to Africa are greatly facilitated by entities such as the Export-Import Bank of China, which saw the size of its exposure to Africa double, surpassing the U.S. Export-Import Bank's exposure to Africa along the way. Today, about 70% of China's EXIM loans are used for export seller credit, with the rest consisting of international guarantees and export buyers.

The top recipients of these investments include Ethiopia, Angola and Kenya, each of which has 10% to 12% of the total share.

With respect to infrastructure, China invests across the continent. Major projects include the 1,400-kilometer Lagos-Calabar Transnational Railway in Nigeria ($11.17 billion) and the 472-kilometer Mombasa-Nairobi Railway ($3.2 billion), which is meant to be part of a broader East Africa rail network. China also heavily invests in infrastructure in Ghana and South Africa.

With recently discovered oil fields, Ghana has experienced robust economic growth. Unfortunately, major infrastructure deficits continue to hamper its efforts to capitalize on its full potential. To address this, the Ghanaian government in 2018 signed a Memorandum of Understanding (MOU) with the China Civil Engineers Construction Corporation (CCECC) to construct a railway to connect Ghana with Burkina Faso.

Credit for the project was provided by the Exim Bank of China. This is one example of numerous projects being implemented. In its report, the economic research firm BMI

Research estimated that a total value of $23.43 billion will be invested in Ghana's infrastructure in the next few years.

In South Africa, the Zendai Group, a Shanghai-based real estate firm, starting construction on its $8 billion Modderfontein New City, located 20 kilometers northeast of Johannesburg. When completed, the new city is expected house 100,000 people and provide more than 13 million square meters of retail space.

Why Is China Investing in Africa?

Africa's wealth of resources is one of the most compelling reasons to invest. China has been investing not only in mining and oil, but also in almost all major industries, specifically in infrastructure. For the past decade, Africa has been the perfect place for China to procure the raw materials it needed to fuel its growing economy. Therefore, improving Africa's deficient infrastructure network is a sensible way for Beijing to benefit its traders as they import raw goods such and oil and copper.

This rationale explains why most of the major highways across West Africa are being built by Chinese state-owned enterprises (SOEs). Heavy government subsidies allow these SOEs to win government infrastructure projects in Africa. "China is not only committed to commodity-rich countries such as Congo DRC and South Africa, but also across West Africa. China knows how to play the long-term game," said Regina Abrami, senior lecturer at the University of Pennsylvania in Chinese-African relations.

Furthermore, as China is dealing with slower economic growth and a softening in the global demand for its goods, Africa, with its 1.2 billion inhabitants and rising consumer class, represents a potential expansion market for Chinese firms. From that perspective, investing in infrastructure will help get the products to African customers faster. A less-discussed fact is that, through all these mega-projects, Africa effectively provides China with jobs. In essence, China is lending money to African governments to employ Chinese citizens. The fact that little to no knowledge transfers occurs during these projects puts Africa in the position of needing foreign (Chinese) expertise for execution.

From a political perspective, China has emerged as a power player in Asia and the world, so tightening its economic ties with Africa is a logical next step. Through heavy investments in infrastructure, it's signaling to the world its strong geopolitical influence on the continent. The African Development Bank said more than $100 billion in infrastructure investment is needed each year in the continent, so room for growth is there for China.

Africa's potential is so significant that McKinsey Global Institute described its burgeoning economies as "lions on the move" in a 2010 report that examined business opportunities across the continent. "By 2040, African will be home to one in five of the planet's young people and have the world's largest working-age population," the report said. "Global investors and executives cannot afford to ignore the continent's immense potential. … Early entry into African economies provides opportunities to create markets, establish brands, shape industry structure, influence customer preferences and establish long-term relationships."

For the past decade, Africa has been the perfect place for China to procure the raw materials it needs to fuel its growing economy.

Chinese Investments Are Highly Favored

Sizable investments from the East into Africa signal a new global order and the arrival of a new superpower. China, which advocates a longstanding non-interference policy, makes it a point not to attach strings to its investments. This represents a dramatic shift from the typical investors that African countries have traditionally dealt with as they often condition their investments to some kind of reforms. These reforms are burdensome to African leaders and curtail flexibility. This has ultimately made China's investments highly attractive to nations that struggle to attract financing from international organizations such as the World Bank or from Western countries.

It is also worth noting that China's low interest rates add to the plethora of what makes its investments so attractive to certain nations. But it is not only corrupt or underdeveloped African states that benefit from China's investments. Ghana, a democratic West African state with a progressive economic plan, also views China as more attractive relative to Western nations based on the value of investments, and has signed Memorandums Of Understanding totaling $15 billion. That amount compares to $1 billion from the United States.

While China offers strings-free investments, the access to such attractive capital has given it a strong influence in Africa's foreign policy, most notably in the shift in the recognition of Taiwan. China has claimed sovereignty over Taiwan since the end of the Chinese civil war in 1949 and forges diplomatic ties only with countries that agree with its position. In 1997, a total of 10 African nations recognized Taiwan's independence. That number has now dropped to one, which is Swaziland. The shift represents the magnitude of China's influence through investments in swaying countries towards its political sphere.

> China has emerged as a power player in Asia and the world, so tightening its economic ties with Africa is a logical next step.

In addition to the political impact, African society and culture has been affected by the large injection of cash from China. For example, there is rapid growth of Chinese populations in regions experiencing high industrial developments, such as oil and gas towns in Angola. Chinese citizens are learning the local dialect and customs, leaving a permanent footprint in Africa. However, in certain countries, the Chinese are not the most welcomed among foreigners. Professor Cheikh Babou, an African historian at the University of Pennsylvania, said China is trying to relate to Africans through the notion that it, too, was colonized. China downplays its social influence in Africa, Babou said, but Africans largely regard China's desire to accumulate wealth and resources as a move right out of a 19th-century imperialist playbook.

The Future of Sino-African Relations

Although Africa has historically been an important part of China's foreign policy, the rise of President Xi Jinping in 2013 marked an important shift in the Sino-African relations. He chose the Republic of Congo and South Africa for his maiden trips, signaling to the world his intention to prioritize his country's relationship with the continent. For Africa, this has translated into billions of dollars received in the form of investment, aid and debt.

Touted as a win-win relationship, the solidification of the Sino-African relationship has been met with backlash in various parts of the continent and even beyond. In Ghana and Zambia, hostility towards Chinese migrants is palpable due to labor issues and the erosion of some industries caused by Chinese imports.

Furthermore, China is gradually being accused of worsening Africa's debt burden, effectively inducing them into a debt trap. While many economists worry, legitimately, that some African countries may have to cede key assets to China in the future (like Sri Lanka handing over its port to China in 2017), African leaders are dismissing the debt trap notion.

In September 2018, most of African heads of state convened to Beijing for the Africa-China Summit, where they left with pledges of both debt relief and $60 billion of investment over the next three years, on top of previous investment commitments. As a testimony to how African leaders value their relationship with China, online business journal Quartz Africa reported that twice as many African leaders made it to the summit than to the U.N. General Assembly.

In considering the future of this relationship, there is an unanswered question about how long it will last. Will China continue to show favor to Africa because of its natural resources and strategic location? If African countries default on their debt, will China attempt to seize these assets? These are considerations that, so far, everyone is happy to push down the road.

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Argentina's New Economic Crisis

Argentina's economy has been marked by decades of tumult, with the value of the peso swinging wildly, inflation eroding purchasing power and the deficit ballooning out of control. President Mauricio Macri has much work to do if he wants to stabilize the economy and usher in greater prosperity. This article examines the challenges ahead and analyzes whether Macri's policies will be effective.

In 2018, the Argentina peso depreciated 19% against the U.S. dollar, protesters filled the streets and the government issued an emergency request to the International Monetary Fund. It's a familiar pattern. In many respects, the current currency crisis in Argentina resembles that of 2001, and fear surrounding its current economic situation is palpable. In a sense, Argentinians are accustomed to this level of uncertainty. From the presidential administrations of Juan Peron to Carlos Menem, each swing of the political pendulum has been accompanied by some sort of economic crisis. President Mauricio Macri, a conservative who took office in December 2015, now aims to reverse this trend. However, he has the tall task of managing this financial crisis while attempting to fix the country's systemic low productivity.

How did Argentina get here? This is an important question to answer in order to understand the country's current economic and political situation. The policies of Kirchnerismo were successful in the early years of President Nestor Kirchner's administration in rebuilding Argentina post-2001 economic crisis, growing the middle class and restructuring 92% of Argentina's international debt. However, these policies, which included subsidies on public transport and utilities, and increases in export taxes on raw materials (retenciones), put a strain on Argentina's fiscal budget. Nestor's successor and wife, Cristina Fernández de Kirchner, would further increase these subsidies in an attempt to redistribute Argentina's wealth to the lower classes.

The main issues with Kirchnerismo were that the subsidies for public transport and electricity mainly benefited the Argentinian upper class while their costs represented approximately 3% of the country's gross domestic product. As a result, the Kirchner/Fernandez administrations imposed sliding-scale export taxes from 33% to 45% on soy exports to mitigate the financial burden created by their social programs and subsidies. This produced massive civil unrest due to the importance of the soy industry to the economy -- Argentina is the world's third-largest exporter of soy meal and the crop accounts for 5.5% of GDP. The political consequences of the Kircher/Fernandez fiscal policy were significant, alienating union leaders and destroying the relationship between the government and leaders in the agricultural industry.

> Macri's reforms have not been as successful as intended, largely due to the unstable foreign exchange rate outlook and inflation still lingering above 20%.

Fernandez's monetary policy was also ineffective in controlling outflows of capital from the country. Strict currency controls made it difficult to buy U.S. dollars and created a black market known as cuevas, where citizens could purchase dollars at the market exchange rate. This policy further fomented the people's frustration with Kirchnerismo because most Argentinians save their money in dollars due to their distrust of the country's financial institutions. In effect, Macri inherited a country with a massive deficit, a population dependent on the Kirchner subsidies, strained political relationships with the private sector and incipient inflationary pressures.

Comparing Macri and Menem

Macri's mission of re-establishing trust in the Argentinian economy is complicated by society's mistrust in neoliberalism, thanks to a series of reforms that took place in the 1990s and culminated in the 2001 financial crisis -- arguably the most severe in the history of the country. Oppositionists repeatedly try to weaken Macri's popularity by raising fears that his reforms are going to produce similar catastrophic outcomes. In an interview to the newspaper Perfil in October 2017, Carlos Heller, an Argentinian lower house representative, said that "this process ends in 2001," a clear reference to the crisis that devastated Argentina at the turn of the century.

From a technical perspective, it is correct to say that a great part of the reforms shows similarities with the ones from the '90s. For example, Menem pushed the privatization of state-owned companies such as Entel, Aerolineas Argentinas and YPF at a stellar pace, raising suspicions of corruption by benefitting friends and political allies in the process. Macri faces similar criticism from oppositionists due to his privatization of the energy sector. Additionally, both Menem and Macri increased the public debt to try and break out of the original crisis they were trying to solve. Menem relied mostly on the IMF; Macri tapped into the international investor community first and eventually returned to the IMF when another crisis hit.

> To put Argentina back on a path of sustainable growth, the president will have to overcome some critical challenges in the short term.

However, there are some key differences that separate the current government from the one of the '90s. While Menem and his economy minister, Domingo Cavallo, used the convertibility plan to force a currency peg to the dollar, Macri was the one to break out of it. A common perception that the capital control executed by the Kirchner government was manipulating exchange rates led to the creation of a large parallel exchange market. Finally, while Menem managed to tackle the Argentinian government's deficit problem in the first years of his term, Macri hasn't achieved similar success so far.

What's Working and What's Not

During his term, Macri has been able to make progress on reforming select areas such as external trade and capital control policies, which were designed to create the right incentives for exporters and foreign investors in order to promote growth. Macri removed currency and capital controls, which closed the gap between official and unofficial exchange rates and encouraged foreign investments. He also resolved transparency issues around the official government economic statistics and Argentina's legal dispute with international holdout creditors, which helped boost the confidence of international investors initially.

Thanks to Macri's early reforms, Argentina was able to return to the international financial market for the first time since its default in 2001 and even issued $2.75 billion in 100-year bonds at an 8% interest rate. Further affirming international investors' increased optimism, Moody's, Standard and Poor's and Fitch all upgraded Argentina's sovereign long-term credit rating in 2016 and 2017, and American businessmen and politicians alike have endorsed Macri's campaign to "bring Argentina back into the world."

In a February 2016 article on news website Infobae.com, General Motors President Dan Ammann said Argentina shows "how the situation can quickly change with the right leadership of the economy." He said Brazil should follow Argentina's example and adopt more business-friendly policies. Former President Barack Obama and Vice President Mike Pence visited Argentina in March 2016 and August 2017, respectively, and both gave speeches at Casa Rosada that included praise for Macri's economic reforms.

However, Macri's reforms have not been as successful as intended, largely due to the unstable foreign exchange rate outlook and inflation still lingering above 20%. In the absence of export taxes on grain, beef, and fish or quotas on grain exports, Macri's trade liberalization policies should have helped increase Argentina's exports; however, Argentina's trade deficit hit a record high in 2017. With the expectation of the peso further devaluing, agricultural producers have instead chosen to hoard for a quick financial gain through additional appreciation of their goods in local currency.

Brazil -- Argentina's main trading partner -- had its currency depreciate even faster. In addition, even though Macri has cut back on energy subsidies and reformed the national pension system as part of an austerity program, Argentina's budget deficit continued rising to 4.6% of gross GDP. This impeded the central bank's inflation mandate and the implementation of other net fiscally negative policies such as the pending export tax cuts on soy. Coupled with unfavorable public opinion, which has erupted in frequent strikes and a massive truckers' road block in February 2018, and the opposition-led Congress, successfully executing the reform agenda is becoming progressively more challenging.

Critics of Macri have argued that his gradual approach to economic reform has generated weak results and left many of his original campaign promises unfulfilled. For example, he has delayed labor reform more than once, turned back on eliminating the export tax on soy but instead adopted a gradual cut, and he has not yet addressed eliminating income taxes for workers. Furthermore, the recent currency crisis demonstrated the increasing vulnerability of Argentina to the whims of the international finance market.

As interest rate hikes in the U.S. sparked a sell-off in emerging markets, the peso fell 25% in value in May 2018 and it became more difficult for Argentina to finance its international foreign currency debt. Macri resorted to negotiating a $50 billion bailout with the IMF in June 2018, but this was a very unpopular measure that drove down his approval rate to a record low of 36%. On this matter, Macri's political opponent, Ricardo Alfonsín of the Radical Civic Union party, said what is needed is an agreement among Argentinians, more so than with the IMF.

In summary, Macri's policies have achieved only a limited level of completion and success, and they have garnered more approval from international investor communities rather than domestic constituents. In a June 2018 interview in Forbes, Jimena Blanco, head of Americas Politics Research at Verisk Maplecroft, a political risk consultancy, said Argentina's gradualist fiscal reforms had been financed by international capital markets but have not yet delivered, either economically or politically. As a result, Argentina has become increasingly exposed to greater risks. "To date, it's largely been all pain and no gain domestically, despite international investor perceptions that the country is fully back on its feet," Blanco said. "Getting Argentina into a virtuous circle of growth -- and avoiding a vicious cycle of ever-decreasing circles -- is far from guaranteed at this point."

Looking to the Future

If the path wasn't so easy for Macri in his first years in government, the scenario is not much different looking forward. To put Argentina back on a path of sustainable growth, the president will have to overcome some critical challenges in the short term. First, Macri will have to show that he has the economic situation under control. If the foreign investors were very confident at the beginning of Macri's turn with the financial reforms and re-opening of its credit market, both quickly implemented by his staff, this is not the case anymore.

The inability to stabilize the peso and curb inflation, compared to the initial targets, have created an enormous amount of uncertainty towards the government, strongly impacting Macri's approval rating and aggravating the current crisis. In that same vein, the interest rate increases in the United States and other developed countries have also exposed the vulnerability of emerging markets such as Argentina.

> In the next year, Argentinians will have the chance to define their future in the polls.

Macri also needs to control the deficit, a historical challenge for Argentina and a constant factor in almost every economic crisis in recent decades. This is not an easy task and Macri will have to deal with the limitations imposed by the IMF while fighting against habitual overspending. The government expenditure as a percentage of GDP increased from 23% in 2003 to 42.2% in 2015, according to the Treasury, and it is still increasing.

In order to implement all the reforms needed to put Argentina on a path of sustained growth, Macri will have to find support and consensus with the opposition. This will prove difficult, considering his tumultuous time in office so far. During this period, Macri lost the support of his voters due to the reduction in subsidies and the devaluation of the peso. In addition to the economic issues, the president also lost cohesiveness within his government coalition, Cambiemos. With 2019 elections on the horizon, Macri will have to find common ground with the opposition to fight against the current crisis and recover the confidence of voters and investors.

Even if the first years of Macri's government failed to meet the expectations of supporters, the neoliberalist policies developed by his economic team are still the best chance that Argentina has had in the last decades to break out of the pendulum effect described by Argentinian economist Marcelo Diamand in his work, *'El péndulo Argentino: ¿Hasta cuando?'* Diamand penned his essay in 1985, but the content and forecasts made by him are still up to date. He wrote that Argentina suffers a pendulum effect between periods of left-wing governments, defined by the author as expansionist, and periods of right-wing governments, defined as orthodox.

The expansionist phase generally starts the first implementation of populists' measures, Diamand said, "economic ideas inspired by the Keynesianism and economic nationalism. Their main goals are progressive distribution of income and full employment." After some period of growth, this measure inevitably leads to a deficit crisis that will drive the pendulum towards the right. According to Diamand, "the conservative government will arrive in the middle of a crisis in the balance of payments. Their answer to this problem is a series of plans that, among other things, will include a sharp devaluation, an increase of agricultural incomes, decrease of real salaries, a severe monetary restriction, a crisis and efforts to attract foreign investments."

In the next year, Argentinians will have the chance to define their future in the polls. The current government has struggled to reverse the course set by prior administrations. However, those in the private sector are optimistic that Macri's economic reforms remain the best path forward to reversing Argentina's economic decline. Argentina faces a serious dilemma ahead: have continued faith in Macri's economic plan or repeat its history and have the pendulum swing back to the left.

This article was written by Sergio Giralt, Thiago Rocha, Guilherme Oshiro and Jacob Kim, members of the Lauder Class of 2020.

India's Stack Attack

In India, a government-backed project called India Stack is revolutionizing the financial system by bringing digitization to the masses. But the software is not without its glitches. While it has increased financial inclusion and cut down considerably on fraud, waste and abuse, India Stack has created complex questions around data privacy and protections that the courts are just beginning to deal with.

While many Asian countries are grappling with an aging workforce, India is sitting on a demographic gold mine. The country's population has a median age of 27, compared with 35 for China and 47 for Japan. In addition, 33% of India's population are millennials and 29% are part of the Generation Z cohort, according to Deloitte's Voice of Asia series. To leverage such a demographic dividend, there is a need to streamline numerous bureaucratic procedures and bring the population into the digital age. To this end, the government of India launched a project called India Stack.

According to the project website, India Stack is a collection of software applications that provides governments, businesses, startups and developers with a unique infrastructure to digitize their processes. India Stack has four different technology layers: presence-less, paperless and cashless. The fourth layer is a consent layer that has been designed to limit incidents of data protection violations.

The first technology layer is Aadhaar, which is associated with the presence-less criteria. Aadhaar is the bedrock of the India Stack platform because it is the equivalent of a Social Security number in the United States. Aadhaar is a 12-digit unique identity number that can be obtained by all residents of India, based on their biometric and demographic data. The data is collected by a body called the Unique Identification Authority of India (UIDAI), which is under the jurisdiction of the Ministry of Electronics and Information Technology. Time magazine described Aadhaar as the largest biometric identity project in the world, and the project's website counts more than 1 billion Aadhaar numbers issued to date. For context, India's entire population is 1.3 billion.

> The presence-less layer on India Stack has proved most valuable in revolutionizing the process by which the government provides cash subsidies to its citizens.

The second technology layer, related to the paperless criteria, uses Aadhaar to verify the identity (Know Your Customer (KYC) checks) of all registered citizens, allowing them to access multiple government applications online. This e-KYC functionality helps the government provide e-documentation services to citizens and improve cost-efficiency. This functionality has enabled over 17 billion successful e-KYCs, resulting in over $7 billion in savings for the government to date.

> Any discussion of the impact of the India Stack would be incomplete without reference to financial technology, one of its most prominent uses.

The final and arguably most crucial layer is consent. With the growing incidents of data protection violations, there is a need to ensure appropriate use of the sensitive data collected. The consent layer allows individuals to provide permissions for entities to access registered data. The key motivation behind this is to securely democratize the market for large amounts of data that drive innovation.

This article analyzes how India Stack has enabled the government to streamline various procedures to drive innovation in fintech. The authors also look at the legal challenges India currently faces because of a weak regulatory framework that has failed to protect consumer privacy.

Enabling Complementary Government Policy

The presence-less layer on India Stack has proved most valuable in revolutionizing the process by which the government provides cash subsidies to its citizens. The traditional method to receive subsidies included tedious paperwork to open a bank account in order to deposit a check. However, low-income Indians encountered many obstacles when collecting and validating their banking documents. Under the new system, the government is able to use biometric data available on the Stack through the Aadhaar data layer to create a unique identity for a beneficiary. It then allows the beneficiary to link his Aadhaar card to a simple government-based bank account—the Jan Dhan account— which allows the government to make a direct subsidy transfer (DBT). According to a Bloomberg, food, fertilizers and petroleum account for most of India's subsidy bill, which was approximately 9% of its national budget in 2018. Unfortunately, according to a 2015 ICICI Bank report, approximately 45% to 50% of the subsidies advanced by the government are lost in leakage due to fake and duplicate accounts.

The first major subsidy program to use DBT was the Pahal LPG scheme that allowed transfers to the beneficiaries' Jan Dhan bank account to subsidize household liquified petroleum gas. According to Guinness World Records, Pahal LPG has become the world's largest cash transfer benefits program since 2013. In addition to reducing bureaucratic paperwork, the DBT program effectively targets beneficiaries through reduced diversion of subsidy amounts.

In the case of petroleum, government policies have induced the creation of a black market. Domestic LPG is subsidized while commercial LPG is taxed. Often, gas hawkers who carry licenses to serve both markets facilitate a black market, allowing corporations cheaper prices and hawkers extra commissions. The old procedure created information asymmetries that hindered the government's ability to audit duplicate beneficiary accounts. However, under the new benefits transfer program, the government can maintain a digital information trail. The subsidy transfer is only made to the Jan Dhan accounts that have been verified by the biometric data on India Stack, so auditing helps eliminate fake accounts that divert subsidies to ghost beneficiaries. Furthermore, the government now caps the number of connections per household to one. The biometric information on the Stack also allows the government to successfully eliminate duplicate accounts or multiple connections per household, further reducing leakage. The evidence for reduced divergence was seen when the total fuel purchases dropped 11% to 14% immediately after the implementation of the Pahal LPG program. Months after implementation, there was an increase in the black-market price of LPG, forcing corporations to make more purchases in the fair market.

The government of India is in the process of extending the DBT program to other subsidies such as food and fertilizer.

Using DBT to provide fertilizer subsidies will allow for the collection and storage of invaluable agricultural data. Because subsidies would be provided to the vendor and not to the farmer, the government is linking the vendor's point of sale to his bank account and Aadhaar card, gathering data on purchase quantities and soil conditions, which can help drive policy decisions.

Driving Innovation in Fintech

Any discussion of the impact of the India Stack would be incomplete without reference to financial technology, one of its most prominent uses. Inefficient state-run banks have dominated India's financial industry for the better part of its independence. Credit is often difficult to come by, especially for small and medium-sized enterprises. Gaurav Dalmia of Dalmia Holdings, an asset manager based in Delhi, estimates that the Indian financial system will require $1 trillion more in credit than can currently be provided. Additionally, despite rapid advancements made over the last few years, India has the second-largest unbanked population in the world. According to the India Times, about 20% of the population is without a bank account. Consider someone trying to get credit from a bank to make a purchase. Using Aadhaar, the bank can perform a credit check as past transactions and loans are linked to the identification number. Satisfied that the person is creditworthy, the bank makes the loan. Using the United Payments Interface (UPI), the cashless layer of India Stack, that same person can automatically transfer money into the merchant's account to make a purchase. Because this is open-source software that anyone can connect to, fintech firms are able to build numerous products and applications using the technology.

One of the biggest success stories is PayTM, which makes use of the UPI to facilitate cashless transactions. PayTM has especially taken off following demonetization in November 2016. In using PayTM, merchants purchase an inexpensive QR code, which connects to their bank accounts. Anyone wishing to buy from the merchant simply scans the QR code. The ease of this model has led to QR codes popping up everywhere, from restaurants to street food vendors. PayTM also acts as a marketplace. Similar to how Amazon has allowed independent or specialized sellers to connect with buyers, the PayTM platform is leading to a whole ecosystem of sellers and merchants. MMTC-PAMP, a gold refinery, has leveraged PayTM's platform to allow buyers to purchase as little as 1 INR worth of gold.

In addition to the ecosystem that it has created, PayTM's revenue model lends itself to further growth and success. PayTM recently stopped charging for financial transactions and has been relying on revenues from event bookings and financial advisory services to fund its operations. All of this is a result of India Stack.

> The legal framework in India has not been able to keep up to date with the practical realities of economic growth and technological developments.

Evidence suggests that India Stack is working to facilitate the flow of credit and to allow companies to reduce costs and bypass an inefficient financial system. This year, India jumped 30 places -- from 130 to 100 -- in the World Bank's Ease of Doing Business Index. While Prime Minister Narendra Modi's government has implemented other related reforms, the World Bank specifically cites increased digitization as a factor behind the improvement. Arvind Gupta and Philip Auerswald noted the benefits of the India Stack in a piece for Harvard Business Review in November 2017. "Banks have far greater liquidity, SME lending is at an all-time high, and digital transactions have multiplied 760 times over in some cases," they wrote. International investors are also starting to take note. Berkshire Hathaway announced on Aug. 27, 2018, that it was acquiring a 3% to 4% stake in PayTM.

Challenges Moving Forward

The business environment in India has been on an upward trajectory with the expansion of the fintech industry. A rise in internet use propelled by smartphone penetration has provided an avenue for small- and medium-sized enterprises to gain better access to financing, technology and training mechanisms. While the government has launched multiple initiatives to help digitalize services such as payments and other ecommerce platforms, this comes with the risk of regulatory uncertainty. As law and policymakers put businesses under tight scrutiny, it is crucial that businesses have effective compliance programs to mitigate damages from potential corporate criminal and civil liability. However, the legal framework in India has not been able to keep up to date with the practical realities of economic growth and technological developments.

According to PwC's 2017 India Report, more than 40% of industry incumbents and startups report that an undefined regulatory framework is a major challenge to their implementation of innovative solutions. Many fintech enterprises, especially within the payments arena, have standing petitions filed against them for data and consumer privacy breaches. Although data privacy and protection laws are not updated to parallel India's shifting economy, courts have been ruling on the side of privacy and consumer protection. The Supreme Court of India (SCI) this year issued a unanimous judgment (Justice K.S. Puttaswamy v. Union of India) over the government's role in assigning every Indian an Aadhaar card. Petitioners argued that such data collection was intrusive to their right to privacy due to potential misuse of personal information. Ruling against the government, the court declared, "The right to privacy is protected as an intrinsic part of the right to life and personal liberty under Article 21 and as a part of the freedoms guaranteed by Part III of the Constitution." While there remains a vacuum in implementing legislation, the milestone decision overturns previous rulings that did not find privacy to be a fundamental right.

Because the inefficient banking system in India has created multiple structural barriers for underserved citizens, the Stack's role in digitizing finance has allowed individuals to connect their identification account with a virtual payment address in order to receive and send money. This has helped mobilize 67% of the population that lives in rural areas and 80% of the nation's population that uses cash for payments. Although India Stack is well supported by the government, legal proceedings have made it difficult for further implementation, largely due to the lack of data privacy legislation and concern for further security breaches around Aadhaar. In January 2018, anonymous hackers gained access to consumer login information and used WhatsApp to sell consumer data. There is no guarantee that consumers' fingerprints collected using the Stack or the government's access to their profiles is limited to legitimate national security concerns.

While the right to data privacy is not explicit in India's Constitution, the Information Technology (Amendment) Act of 2008 expanded the initial IT Act by establishing compensation for negligence in implementing and maintaining "reasonable security practices and procedures" in relation to "sensitive personal data or information." Personal data and information can be collected so long as the corporation obtains consent in advance and takes reasonable steps to ensure there is no misuse of information. Given the government's involvement in establishing India Stack, it is unclear who assumes full responsibility for consumer protection -- the government or private actors. In early 2018, the government proposed the Data Protection Bill, which requires companies store critical personal data within India only. This has raised the concerns of many fintech enterprises because the bill does not clarify who sets the standard for "critical personal data" and expands the central government's access to the information collected. The need for a "robust data protection law" was also highlighted in the Supreme Court's most recent ruling. On a 4-1 decision, the court upheld the Aadhaar project as constitutional while placing new restrictions on private businesses -- including phone companies -- from accessing an individual's Aadhaar number. While the court's holding also restricts the government from invoking the "national security exception" without due process to access one's personal data, critics including Reetika Kheera, an Indian economist and social scientist, argue that the court failed to mandate protections against security breaches that have resulted in Aadhaar-related deaths (a consequence of the spread of misinformation from unlawful personal data collection).

According to Forbes, India's "ecosystem has grown exponentially" since the 2014 boom of the fintech space, standing third behind the United States and the United Kingdom in fostering growth for technology startups, especially in finance. The country has been at the forefront of creating an ecosystem harvesting technological innovation. However, without appropriate legislation defining what the right of privacy is, in addition to clarifying what responsibility corporates will be held accountable for, many businesses risk potential litigation for misuse of consumer data or security breaches.

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Immigration as a Driver of Entrepreneurship: The Case of Brazil

While many nations are moving to close their doors to immigrants, Brazil has been welcoming them with open arms. That's because political and business leaders recognize the myriad ways that immigrant entrepreneurs benefit the economy. This article examines the reasoning behind Brazil's immigration policy and explains why the Latin American country can serve as an example to the world.

Immigration has been a hotbed issue throughout history, but perhaps never so much as now. The United Nations reported that international migration reached an all-time high of 258 million in 2017, up from 220 million in 2010 and 173 million in 2000. These unprecedented numbers have sparked a new populist wave, especially among Western countries, and renewed calls for restrictions on who can cross borders.

Brazil, however, appears to be going against the current. Once home to more than 4 million immigrants, Latin America's largest economy is again encouraging migration. According to Brazil's Ministry of Labor, the government has issued more than 300,000 work visas since 2010, compared with less than 3,000 per year just 20 years ago. Of these new workers, 50% hold a university degree, a significant number compared to Brazil's average rate of 8%. The number of residence permits granted to investors grew by a factor of four between 2011 and 2015, with each migrant investing an average of USD$70,000. In comparison, Brazil as a whole invests $2,000 per capita every year. In 2017, legislation guaranteeing the same rights to foreign-born residents as native Brazilians was adopted by Congress.

In his recent research paper, former U.S. Treasury Secretary Larry Summers said the Western world may be entering a period of "secular stagnation" in which economies struggle to grow. In that sense, Brazil's decision to embrace immigrants opens the door wide to economic prosperity. Broadly speaking, the amount a country's gross domestic product grows year after year depends on the number of workers, the available capital per worker and, most importantly, what each worker can do with that capital, also known as productivity. Even though capital is widely available, the population is aging, and the World Bank's recent estimates highlight a falling productivity. Brazil understands that immigration can be a solution to both these problems. It injects new labor into the workforce and encourages the incubation of new ventures that drive innovation and, ultimately, productivity. Brazil is absorbing a well-educated working population, and adopting a whole new class of migrant entrepreneurs.

> Governments around the world view promoting entrepreneurship as a national and local priority.

The Relationship Between Immigration and Entrepreneurship

In his 2017 *CATO Journal* article on immigration and entrepreneurship, Magnus Lofstrom analyzed U.S. data to examine how immigrants in the last 15 years have contributed to entrepreneurship. According to Lofstrom, two relevant measures are business ownership/startups and patents/innovation. Research has consistently found that business ownership is higher among the foreign-born than the native-born in many developed countries, including the United States, United Kingdom, Canada and Australia. Immigrants in the United States are also more likely to start businesses than native-born citizens. According to *Entrepreneur* magazine, more than 40% of businesses on the U.S. Fortune 500 list were launched by first- or second-generation immigrants.

In terms of patents and innovation, Lofstrom also argues that the increase in the proportion of U.S. immigrants with at least a college degree increased the country's patents per capita by about 21%, and that high-skilled immigration has had a positive impact on technology formation as measured by science and engineering employment. The key takeaway of the work is that the growth is accomplished without crowding out native-born scientists and engineers.

Governments around the world view promoting entrepreneurship as a national and local priority. The interest is driven primarily by evidence that small and young businesses create a significant share of new jobs in the economy, represent an important source of innovation, increase national productivity and alleviate poverty. Some developed nations have established special visas and entry requirements to attract immigrant entrepreneurs.

> Whether for economic, demographic, cultural or even moral reasons, immigration should be fostered rather than quelled, and Brazil is a perfect case study as to why.

What Makes Immigrants More Entrepreneurial?

LinkedIn co-founder Reid Hoffman wrote in a 2013 article in *The Washington Post* that entrepreneurship is essential to the very impulse behind immigration. "Immigration is pure entrepreneurship," he said. "You leave behind everything familiar to start somewhere new. To succeed, you need to develop alliances. You must acquire skills. You will have to improvise on occasions. It's a bold proposition." Research has suggested that selection and discrimination effects may be driving this phenomenon. For instance, entrepreneurial individuals may be more likely to migrate, and immigration policies in many countries tend to favor highly motivated and capable individuals. Additionally, discrimination against immigrants in labor markets may exert pressure on them to seek self-employment.

In a recent study published in the *Journal of Business Venturing*, Peter Vandor, senior researcher at the Social Entrepreneurship Center of Vienna University of Economics and Business, and Nikolaus Franke, professor of entrepreneurship at that same university, aimed at providing a different explanation to those selection and discrimination effects. They argued that cross-cultural experiences may increase individuals' abilities to identify promising business ideas. By living in different cultures, immigrants encounter new products, services, customer preferences and communication strategies, and this exposure may allow the transfer of knowledge about customer problems or solutions from one country to another. By applying this kind of arbitrage, a temporary or permanent migrant can decide to replicate a profitable product or business model available in one country but not in another. Successful companies such as Starbucks (inspired by coffeehouses in Italy) and the German online retailer Zalando (inspired by Zappos) exemplify this strategy's potential.

In an experiment, Vandor and Franke asked students with no professional experience to come up with business ideas both before and after pursuing a semester abroad. Results suggested that students who gained cross-cultural experience had better ideas and received 20% higher venture capital (VC) ratings after their semester abroad, compared with students who did not undergo the international experience. There were no differences in ratings before the exchange program.

Regardless of whether immigrants are more likely to be entrepreneurs because they have better ideas or because of the selection/discrimination effects, there is no doubt about the critical role immigrants play in entrepreneurship, innovation and growth. Because immigration is increasingly considered by some to be a threat, the fact that it may result in an overall gain in entrepreneurial activity may be a useful reminder for business leaders and policy makers.

Brazil: Latin America's Most Diverse Nation

Brazil is one of the most diverse countries in Latin America. Most Brazilians descended from three main ethnic groups: early European settlers, sub-Saharan Africans who arrived as slaves, and the indigenous population. In addition, there are sizable communities of Chinese and Japanese descent. Besides its colonial history and consequent immigration patterns, Brazil also underwent a considerable wave of post-colonial immigration during the late 19th and early 20th centuries. During this era, migrants arrived from three main regions: Europeans fleeing from the Great Wars (mostly from Italy, Spain, Germany and Poland), Asians (especially from Japan), and Christian Arabs from what is currently Lebanon and Syria.

Research estimates that around 4.5 million people immigrated to Brazil between 1882 and 1934. The Brazilian government played an active role in this large migratory trend by making a conscious decision to bring in people from all over the world. The government had two main objectives: to populate the least dense areas of the country (Brazil is the fifth-largest country in the world by size), and to replace slaves with relatively cheap labor (slavery in Brazil was only abolished in 1888).

Several factors enabled these communities to assimilate to the Brazilian culture more easily than immigrants in other countries. Racial and religious diversity was better accepted internally than in other countries, yet citizens of different nationalities founded their own communities in Brazil. This pattern is exemplified in a map of immigrant neighborhoods throughout São Paulo, which is the country's largest city with more than 12 million inhabitants. São Paulo represents 30% of Brazil's GDP and is the business capital of Latin America. In the city, different immigrant communities have congregated by nationality. The Japanese gathered in Liberdade (a "barrio" with no less than 200,000 people); Asians from other nationalities, mainly Chinese and South Koreans, did so in Bras; the Jewish community was at first concentrated in Bom Retiro and is now mostly in Higienópolis; and Italians first settled in Bixiga before moving over to Mooca. This fascinatingly diverse urban environment of migrant communities earned São Paulo the designation of "Global Alpha City" by the Globalization and World Cities Research Network (GaWC).

Immigrants Drive Entrepreneurship in Brazil

Immigrants in Brazil remain very active members of the local entrepreneurial scene. Founded by French immigrant Fabien Mendez, Loggi is an app-based logistics company that connects customers with motorcycle couriers, which are known in Brazil as *motoboys*. The company is in the process of raising USD$150 million from Softbank. Nubank, the first digital bank in Brazil and largest fintech company in Latin America, was founded by a Colombian, David Velez. These are just two examples of a plethora of Brazilian startups founded by first-generation immigrants. The presence of international talent is not only represented at the founder level, but is also remarkable among web developers who often come from Venezuela, Colombia and Argentina.

Why do so many entrepreneurs decide to start their ventures in Brazil? The most obvious answer has to do with Brazil's market, which is the largest in Latin America. Many Argentine entrepreneurs start with a pilot project in Argentina. Once they confirm their business model's viability, the next stop is Brazil. The attraction is not limited to fellow Latin Americans; young professionals from around the world are lured by the country's business landscape. Brazil seductively combines a large domestic market with the dynamics of a developing country, which tend to provide more room for innovation, growth and disruption. For instance, Colombia-born Luis González migrated to Brazil after completing the Lauder program at Wharton in 1998. After spending a couple of years at Boston Consulting Group, he founded Vidalink, the country's first pharmacy benefits management (PBM) provider. "In emerging markets, you can get inspired from the latest trends in more developed countries," he said.

But it's not all about the business. Brazil is attractive.

> The world has a lot to learn from Brazil.

Foreigners around the world are attracted to the Brazilian lifestyle, the beaches, the culture and the diversity. Rodolphe Timsit is a French entrepreneur who arrived in Brazil four years ago and founded Appito, an app that enables soccer amateurs to rent fields and organize friendly matches throughout São Paulo. Before moving there, Timsit worked for one of the world's most prestigious investment banks out of London. But Brazil's quality of life was something else. "I am in love with Brazil, and as an entrepreneur, it allowed me to support myself through the early stages without as much funding as I would have required somewhere like New York or London," he said. "I also get to spend my weekends at the beach surfing with friends. Does it get any better?"

Entrepreneurs come to Brazil, and they love it. So far, it all makes sense. But how come the immigrant community is so successful at building businesses and making it work? There are several potential explanations. Firstly, as stated earlier, immigrants carry a fresh perspective with them along with a "nothing to lose" mindset, which leads them to take risks that Brazilians sometimes won't. In the case of Nubank, Velez said he was shocked by the inefficiency, poor customer service and lack of technological sophistication in the Brazilian banking system. When the entrepreneur started sharing his idea of starting a digital bank, people told him he was out of his mind, claiming it would never work in Brazil. Large banking institutions would not let in a newcomer, customers need the brick-and-mortar establishments, and countless other excuses were raised by his critics. A few years later, the company has 4 million customers, double-digit growth and is the largest fintech company in Latin America.

A second crucially important factor is access to capital. In many cases, immigrants who have lived, studied or worked in markets such as Europe or the U.S. are exposed to financing opportunities that locals simply do not have. Venture capital investment in Brazil has been soaring over the past couple of years, doubling from approximately USD$500 million in 2016 to more than $1 billion in 2017. Most of the funding comes from abroad, which is expected considering VC capital is much more abundant in developed markets, particularly Silicon Valley. Brazil's largest deals in 2017 were all funded by foreign capital. As pointed out by Crunchbase, an online platform covering startup news, the ridesharing startup 99 raised $200 million from Japanese-based Softbank, China's Didi and U.S.-based Riverwood Capital. Meanwhile, Mobile commerce platform Movile raised an astonishing $135 million from Naspers of South Africa and Innova Capital of Poland. In fact, all three of Brazil's unicorns are mainly funded by foreign sources of capital. Nubank is mainly backed by capital from Hong Kong (DST Global) and America (Sequoia Capital). Velez was a partner at Sequoia Capital before launching his startup, another example of how foreigners have more access to the foreign capital fueling Brazil's entrepreneurial growth. Research conducted by Professor Exequiel Hernandez, an immigration specialist at The Wharton School, corroborates the conclusion that the presence of immigrants attracts foreign capital, boosting foreign direct investment (FDI), and is more effective at doing so than government incentives.

As Vidalink founder González pointed out, "There is much more funding money available from the United States than from Brazil, and being a Wharton/Lauder graduate has opened many doors for me." Brazil's culture also provides a welcoming stage. "People in Brazil open the door for foreign entrepreneurs because they are curious to know what you have to say. What are you doing here? Why did you choose Brazil? They will make the time to at least hear your story," he said.

Brazil Sets an Example for Migration Politics

In his book "The Great Convergence: Information Technology and the New Globalization," economics professor Richard Baldwin explained that, since the creation of the steam engine in the 1720s, the cost of transporting goods from one part of the world to the other has only declined, and freight now represents a marginal cost even for low-value-added commodities. Since the expansion of the internet in the 1990s, ideas move almost immediately and at virtually zero cost. These two factors have enabled global trade to grow twice as fast as the world's economy since the 1980s and to reach 20% of the world's GDP, according to the World Trade Organization. Despite this global hyper-connectivity, there is no global consensus on immigration rights. In 1990, the United Nations released the International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families, which aims to provide the non-national workforce the same basic rights as the local workforce. By 2017, only 51 countries had ratified the convention. In comparison, 189 states ratified the Convention on the Elimination of All Forms of Discrimination against Women, and 196 countries signed the Convention on the Rights of the Child. Thus, it is not a surprise that in 2018 people do not universally have the right to exercise their craft anywhere in the world.

Public opinion in the United States, Saudi Arabia and Germany -- the three countries with the greatest proportion of immigrants – seems to be growing against immigration. In the U.S., President Donald Trump was elected in part on a campaign promise to build a wall at the Mexican border and set illegal immigration as a top priority. Saudi Arabia implemented the *Nitaqat* program in 2013, which put Saudi labor first and deported thousands of workers from the country. Even in Germany, which received almost 1.5 million refugees between 2015 and 2017, a far right and anti-immigration party, Alternative für Deutschland, won 14% of the votes in the past elections.

This rejection of immigration is short-sighted. Putting aside the fact that migrants drive innovation and boost the economy, most countries will need foreign workers to replace their aging population. According to the United Nations, for every 100 Europeans of working age, there will be 53 people who are age 65 or older by 2050. In the U.S., this number will grow from 25 to 41 per 100. In Latin America and Asia, it will grow from between 13 and 20, respectively, to over 30 per 100. This means that for every two to three working adults, there will be one elder requiring support from the social security system. Pension funds will struggle unless productivity increases dramatically or new workers come from elsewhere.

The world has a lot to learn from Brazil. In 2017, the country decided to make significant changes to its migration law. The former one was from 1980, when a dictatorship regime was in power and considered migrants a threat to national security. It was time for an updated law to encourage migration. Now, migrants and locals have the same rights in areas such as health and education, and the process to become a permanent resident is now less bureaucratic and expensive. Illegal immigration is no longer considered a crime, which means that immigrants cannot be prosecuted for not having the appropriate documents. This is particularly important for immigrants who come as refugees from countries such as Venezuela, Syria or Haiti. In 2017, Brazil approved more than 30,000 applications from people from these countries, with almost half coming from Venezuela, according to the Ministry of Justice.

Universally, immigrants are key drivers of entrepreneurship due to their diverse outlook, risk-prone mindset and ties to foreign networks of capital and knowledge. Both historically and currently, Brazil has shown how immigrants can create business, boost productivity and drive growth given support from the government. Over the course of the 19th and 20th centuries, Brazilian immigrant communities have thrived across many different sectors and industries. From savvy web developers to billionaire tech entrepreneurs, immigrants play a key role in the country's blossoming entrepreneurial scene. Brazil has grasped this reality and is loosening its immigration laws to foster this rich influx of foreign talent. At a time when immigrants have become the favorite scapegoat of nationalistic and populist discourse, it is imperative that Brazil further pursues its immigrant-friendly tendencies and serves as an example to the rest of the region and world. Whether for economic, demographic, cultural or even moral reasons, immigration should be fostered rather than quelled, and Brazil is a perfect case study as to why.

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Digital Payments: A Look at Argentina and Brazil

Latin American countries lag behind developed markets in electronic payments, despite the fact that Argentina and Brazil are two of the world's 25 largest economies. The majority of the countries within the region have reached emerging status in digital payments, but Argentina is still at an early stage. By contrasting Brazil and Argentina, this article explores what hinders Argentina's development of digital payment methods, why it matters, and what the future holds.

The age of electronic payment methods is in full swing, and so is the movement towards paperless societies. According to the market research firm Euromonitor, card transactions now have outnumbered cash payments for the first time in history. The world's largest economies have been the most predisposed to make the digital change, with studies showing that cash is used in only 13% of consumer transactions in countries such as Sweden. The World Payments Report for 2017 underscores how the world economy, driven by Asia-Pacific countries, is already moving towards the next wave of payments, including e-payments, m-payments, digital wallets, and in some cases even blockchain solutions and cryptocurrencies.

Latin America economies continue to remain mostly cash-based.

But Latin America economies continue to remain mostly cash-based, according to Citi and Imperial College London's Digital Money Index, which measures a country's ability to incorporate new digital payment methods. Among the world's largest 25 economies in gross domestic product, the only countries that are not classified as "in transition" or "materially ready" to adopt new electronic payment methods are Argentina, Brazil and India.

Various reasons explain why Latin America has not adopted digital payments at the same rate as developed economies. A report from International Finance Corp. cites four specific challenges that persist in emerging markets: low penetration of formal financial services, low income and financial literacy levels, underdeveloped technology ecosystems and weak infrastructure. Moreover, the widespread distrust of financial institutions and the high cost of financial services are equally detrimental to the development of digital payments. According to the Findex report developed by the World Bank, the percentage of Latin Americans who do not own a bank account due to high costs or distrust of financial institutions is nearly twice as large as the global average: 26% compared to 16%, respectively.

According to a Citibank study, Brazil, Chile, Colombia, El Salvador, Guatemala, Honduras, Mexico and Peru have all been able to reach emerging status in digital payments. However, Argentina, the region's third-largest economy, remains "incipient" in the adoption of digital money, along with Venezuela. Given that Argentina and Brazil are two of Latin America's largest economies and neighbors with historical similarities, this article compares past and current factors to explain this gap.

A Closer Look at Argentina, Brazil

Walking down the streets of Buenos Aires, one can easily see that Argentina is still in an early stage of electronic payment adoption, as cafés, stores, bars and taxi drivers often do not accept card payments. Even Mastercard, the second-largest card network in the world, is scarcely accepted. Data from the World Bank shows that only 41% of adult Argentinians possess some type of electronic card, compared with 59% in Brazil. Four main reasons explain the difference between the two countries: bancarization (the percentage of a population that uses banking services), merchant influence, governmental programs and innovation.

While 70% of the Brazilian population has a bank account, as noted by the World Bank, less than half of the Argentinian population does. A deposit freeze, which took effect in Argentina amid the 2001 economic crisis, is partly to blame for the gap because it deeply affected the way that citizens perceive the country's financial institutions. Specifically, the government froze bank accounts and forced those with dollars to convert the currency into devalued pesos, causing Argentinians to lose faith in the country's financial infrastructure.

As a result, many people who actively save money do not use a bank to do so. Out of those who declared some savings in 2017, only 23% deposited those savings in a financial institution, compared with 45% in Brazil, according to data from the World Bank. Without a financial institution to enable an electronic transaction, these savers do not have access to digital payments.

In Brazil, merchants play an important role in the development of the digital payments market. The development of titans in the retail space, along with the historical importance of credit and installment plans for consumer purchases, enticed retailers to enter the payments industry. Indeed, the majority of Brazil's largest retailers, including Grupo Pão de Açúcar (groceries), Magazine Luiza (specialty retail) and Lojas Renner (fashion), issue credit cards for the general population, promoting financial accessibility and inclusion.

As for smaller retailers, the recent emergence of acquirers that focus on the self-employed and SMEs has been expanding the card-acceptance network. After the Brazilian acquirer Moderninha began to focus on small business in 2014, many other players followed suit, creating an industry that has raised the credit card acceptance rate to 74%, according to the Central Bank of Brazil. This is seen through the acceptance of credit cards in nontraditional venues, such as street vendors, taxis and self-employed business operators in rural areas.

In addition to merchants, the Brazilian government has bolstered bancarization and card payments among the poor. In 2007, the government incorporated a magnetic card to implement its most popular social welfare program, Bolsa Família, which provides financial assistance to low-income families. Because the program reaches nearly 50 million Brazilians -- almost a quarter of the population -- the implementation of the card system fosters significant financial inclusion.

In contrast, Argentina has only recently started to incorporate electronic payment methods into its social welfare programs with Ticket Social, a pre-paid magnetic card that allows families to buy food and personal care items. The program's reach is still limited because it is offered exclusively in Buenos Aires.

> Walking down the streets of Buenos Aires, one can easily see that Argentina is still in an early stage of electronic payment adoption.

Finally, the most obvious difference between the two countries regarding the electronic payment industry is the lack of innovation in Argentina. A survey by PwC Argentina found that 77% of businesses surveyed encounter difficulties hiring employees who are considered sufficiently qualified to innovate in some capacity. The general deficiency of innovation is also apparent when examining venture capital investment. According to the Latin American Private Equity & Venture Capital Association (LAVCA), Brazil received 45.4% of all venture capital deals in Latin America, whereas Argentina only received 7.6%.

When it comes to fintech companies, Brazil currently has 230 fintech startups, whereas Argentina lays claim to 72. Additionally, the 2017 EY FinTech Adoption Index report found that Brazil was among the top four countries with the highest fintech adoption rates. Argentina was not even listed on the index.

Importance of Digital Payments

One of the greatest sources of concern regarding the lack of electronic payment methods is the economic growth that is foregone by maintaining a cash-based economy. A study commissioned by Visa's Global Public Policy Group and the Roubini ThoughtLab said that less dependence on cash provides important benefits for governments, businesses and consumers that lead to broader economic growth.

Perhaps the most significant benefit of moving to a digital system is greater inclusion of individuals in the formal economy, which eliminates opportunities for tax evasion and increases revenue collection for governments. Citibank estimates that a 10% increase in the adoption of electronic payments could cause a $1 trillion shift to the formal economy worldwide. In addition, the Inter-American Development Bank has projected that the impact of digitalizing payments in Latin America -- a region where the informal economy accounts for 55% of the workforce -- could be huge. For instance, in Brazil, "the Bolsa Família program reduced its transaction costs from 14.7% of total payments to 2.6% when it bundled several benefits onto one electronic payment card," according to a World Bank report.

> When it comes to fintech companies, Brazil currently has 230 fintech startups, whereas Argentina lays claim to 72.

Digital payments produce other societal benefits that are not as obvious, such as reducing crime. A study by the U.S. National Bureau of Economic Research found a positive correlation between the percentage of transactions that involve cash and crime rates in a given area. Although it is unclear to what extent crimes are specifically motivated by cash, the correlation applies to both the private and public sectors. For example, in Argentina, a report by Citi and Imperial College London shows that the percentage of survey participants "who admit to paying bribes to local officials in order to access their benefits fell from 3.6% to 0.3% after the Ministry of Social Development moved to electronic payment cards."

Businesses also stand to benefit from a more cashless system, both in terms of time and money. The Roubini ThoughtLab found that businesses spend approximately 68 hours a week managing cash, despite losing roughly 4% of monthly revenue from cash shortages, theft and counterfeit bills. In cities located in emerging markets, such as São Paulo, this percentage is estimated as high as 9%. The same study discovered that businesses significantly increase sales when adopting electronic payment systems, which in São Paulo has varied from 27% to 51% of total sales. As a result, the businesses of the economy in question would stand to gain substantially if they were to adopt digital payment methods.

Consumers benefit in both short-term and long-term aspects. The immediate savings arise from the fact that individuals who do not have a bank account generally must pay fees and commissions to obtain the cash needed to carry out daily transactions. Having access to a transactional account eliminates those costs. A report by the World Economic Forum also indicates that consistent relations with a financial institution by means of a transactional account provide the fundamental base for broader financial inclusion. The long-term benefits of such a relationship imply access to credit, pension plans and insurance.

What's Next for Argentina?

Latin America currently lacks the competitive payment-driven fintech environment that other regional markets, such as Asia, already possess. Given that Latin America only receives roughly $600 million of the global $24 billion fintech investment pool, it is vital that its largest economies -- including Argentina and Brazil -- lead the way in creating strong digital payment and fintech ecosystems.

The Argentinian government appears to have recognized this need and has recently started supporting a shift towards financial inclusion and digital payments. The country's national bank recently launched PIM, a product that enables anyone with a mobile phone number to send money, pay bills, and make purchases online and in store. Additionally, the government has acted through legislation. In 2016, it passed a law that requires businesses to accept digital payment methods and provides for a fine for noncompliance. While these efforts have not yet changed the economy's dependence on cash, they are evidence that the government knows what's at stake.

In the private sector, the Argentinian company Mercado Libre, the largest e-commerce company in Latin America, has made similar strides in boosting financial inclusion through its integrated mobile payment solution, Mercado Pago. Its market power and growth prospects could allow it to fundamentally change electronic payments in both Argentina and Latin America. Even if Mercado Pago is not responsible for the change, the expectation is that other fintechs will rapidly emerge. According to the PwC Global Fintech Survey, 93% of businesses in Latin America "believe that part of (their) business is at risk of being lost to standalone fintech companies within the next five years."

The Brazilian government has also formalized support for its fintech industry with the recent launch of Laboratório de Inovações Financeiras e Tecnológicas (LIFT), an incubator in which banks, startups, academics and large tech companies can collaborate to promote financial inclusion in the country. However, the key difference between the developments in digital payments in Argentina and Brazil appears to be the innovation that originates from the private sector in the latter.

For example, Nubank, the first fintech company in South America to be valued at more than $1 billion, aims to revolutionize the payments ecosystem through its no-fee financial services that are controlled through a mobile app. Recently, the company has begun offering digital bank accounts to new customers outside of its existing credit card base, a move that not only increases digitization and formalization of payments in the region, but also fosters healthy competition with established banks. Guiabolso, another prominent fintech in Brazil, offers additional competition through an app that provides a consolidated financial profile and credit products.

Through some government-backed initiatives, Argentina has made progress in moving towards a more cashless society, but it still falls behind the efforts made by comparable economies. This difference can be explained by historical levels of bancarization and the lack of governmental support. The gap is also attributable to the absence of merchant involvement in the digital payments industry and innovation by fintech companies.

If Argentina is going to reap the benefits of a cashless economy and develop a digital payment network, it will most likely have to incentivize innovation either through public programs or legislation that favor the Argentinian fintech industry. As a report by the World Bank suggests, a "true public-private partnership is needed to drive innovative financial inclusion." Whether that partnership will exist is yet to be seen.

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Calming Air India's Turbulence: Is Privatization the Answer?

In the cutthroat airline industry, Emirates stands out for its success in the same measure that Air India does for its failure. The national airline of India has suffered breathtaking financial losses over the years, and the government has failed to find a buyer for it. In this article, the authors make the case for Air India to employ Emirates' winning business model in order to stay aloft.

Airlines operate in a notoriously difficult industry. Efficiency and flexibility are key to running airline companies, which face challenges ranging from navigating the dizzying complexity of the modern airport and increasingly crowded skies to following numerous regulations across different geographies. This high level of organization and an acute attention to safety must be balanced with making profits, which are often razor thin in this industry. Given the challenges, it may be surprising that one of the leading names in the airline industry is wholly state owned. Founded in 1985, Emirates airline has recorded a profit every year, except for its second year. In its first 11 years, Emirates doubled in size every 3.5 years and most recently grew revenues 8.8% year-over-year in 2017. Moreover, it operates the largest fleet of Airbus A380s and Boeing 777s in the world. This image runs counter to the stereotype of state-owned enterprises as being cumbersome and uncompetitive businesses. The success of Emirates stems from some key inherent advantages, along with a business model that is more akin to a private enterprise than a state-owned enterprise.

Dubai's development model has been to marry Western expertise with low-cost labor from Asia.

Emirates airline is a microcosm of the economic model that has worked well for Dubai in recent decades. While the airline is state-owned, it is almost entirely privately run. Dubai's development model has been to marry Western expertise with low-cost labor from Asia. Five out of the nine individuals on Emirate's management team are foreigners. There are many more hundreds working in skilled positions in the company. Complementing that is the cheap labor that Emirates sources from around the world, including thousands of employees from Asia (11,000 Indian nationals alone in 2011), to maintain a sizable labor cost advantage. The result of this model is a company that is well run and expanding. Emirates has low unit costs from operating a new fleet (translating to lower fuel and maintenance costs), superior operations that allow for higher aircraft utilization, high productivity, and it delivers an exceptional customer experience, according to industry surveys.

The second major advantage that Emirates has is geographical. The airline's hub in Dubai sits between Europe and Asia, which allows Emirates to profit from the large volumes of traffic going between these regions. While geography is a natural blessing, Emirates still deserves credit for taking advantage of its location. It faces competition from numerous airlines in the region, including Etihad Airways, Qatar Airways and Air India. These airlines, particularly Air India, have been unable to replicate Emirates' model to the same scale despite all being state-owned.

Air India contrasts sharply with Emirates as it has been shrinking and unprofitable for many years. The Indian government has attempted to solve the problem by trying to privatize the company, but it has been struggling to find buyers for a majority stake in the airline. However, perhaps there is a third way for Air India, which is to follow the Emirates model of remaining state-owned but privately run with minimal government interference.

The Air India Story

Air India is an international airline serving a large domestic market and only two hours away from Dubai. When Emirates was established, Air India had already had a long history and was in a good position to serve as a hub for global destinations the way Emirates does today. Despite its auspicious start, the company in recent years has recorded net losses of approximately $425 million a year. So, what went wrong for Air India?

The pivotal moment in the airline's history was the liberalization of the Indian civil aviation sector in the early 2000s, when many more carriers were allowed into the domestic market. From Air India's perspective, there was no way to beat the newly competing budget airlines on cost, so the only way was to offer a better product. The objective was to provide seamless travel from a tier-2 Indian city to hub cities and then onto global destinations. In setting this competitive strategy, an ill-fated decision was made to merge with Indian Airlines, which was a domestic carrier. Both airlines were public-sector enterprises but operated largely independently of each other. While nobly intentioned, the merger went woefully wrong. Different employee pay scales, different promotion levels, and different incentive structures for pilots, handlers and ground staff created numerous conflicts within the organization, resulting in high attrition rates.

In June 2017, after a consecutive 15 years of losses, the government spearheaded an initiative to privatize the airline, nicknamed the Maharaja. The government decided to sell up to 76% of the stake in the airline, proposing to hold on to the remaining 24%. According to a former managing director of Air India, money was the key incentive in this choice. By holding a stake, the government could hope to partially recover its losses if profitability and valuation of the airline improved. However, this privatization bid failed spectacularly, with no prospective buyers despite the airline being on the market for six months.

The first challenge for an airline looking to sell is that the universe of buyers is small. Only so many carriers have the capacity to take on the level of assets and liabilities that a national airline holds. Based on capacity, only five or six airlines around the world would be capable of such a purchase. According to India's *Economic Times*, Qatar Airways CEO Akbar Al Baker said that he would be interested in the airline but would be unable to sustain a purchase that included Air India's ground handling and engineering operations. And potential buyers also tend to be from the same region because only those carriers know the nuances of flying the same routes. Indigo, the largest budget carrier in India and the country's most profitable airline, was unable to put in a bid because it has a 46% market share in India. Given that their combined share would have been over 60%, a deal likely would have been halted because of government regulations around competition and antitrust.

> Air India contrasts sharply with Emirates airline as it has been shrinking and unprofitable for many years.

Secondly, bidders can also cartelize in such situations. If a bidder holds back on the first attempt, the seller could be forced into making a more tempting offer in a subsequent round, such as selling a higher stake or leaving out some of the debt. Surprisingly, the Indian government did not initiate talks with potential bidders to break such potential cartels and encourage carriers to bid. In such cases, it is important to talk to the bidders, set up a back-channel diplomacy and address their concerns. The privatization drive was largely led by bureaucrats who held key management positions in the airline, but it must be politicians who initiate these back channels with prospective buyers.

Thirdly, some of the assets and liabilities owned by the airline are inherently difficult to sell. There are lumpy assets, such as the Air India building in Mumbai, which is highly valued real estate that may not have a liquid market. There are subsidiaries such as ground handling that need to get sold off with the main airline. Also, Air India has a debt burden of $6.65 billion supporting an asset base of only $6.40 billion. This highly unsustainable debt-to-asset ratio of more than 100%, compared with 40% for Emirates, has made it impossible for the airline to come out of unprofitability despite breaking even on operating costs.

Finally, a large spoke in Air India's wheel, either in privation or in continuing operations, is that its top management does not come from the aviation industry and does not have commercial aviation experience. These positions are restricted to the bureaucratic machinery and few senior executives are hired for industry experience. Compared with Emirates President Tim Clark, who has more than 40 years of experience in the industry, the current managing director (MD) of Air India, Pradeep Singh Kharola, served as the MD of the Bangalore Metro Rail Corporation prior to his stint at Air India. The MD before him, Ashwani Lohani, came from the Indian Railway Service. The government of India could adopt a hands-off approach to management and get outside help from industry experts to help turn around the operations of the airline and generate interest among prospective buyers. A recent op-ed in the *Economic Times* highlighted a case study of how another public-sector organization, the Steel Authority of India Ltd. (SAIL), brought in industry veteran and Tata Steel Deputy Managing Director Tridibesh Mukherjee, along with Boston Consulting Group, to turn around its steel plants. Air India could take a page out of SAIL's book.

> The first challenge for an airline looking to sell is that the universe of buyers is small.

Steadying the Ship for Future Success

Numerous complications have hindered the restructuring of Air India over the years. The latest solution to privatize the company has failed miserably. However, it would be wrong to see Air India's situation as hopeless. The government could pursue a third option not only to turn the company around, but to position it for global growth. Instead of focusing on the painful process of privatizing Air India, the government could retain its ownership and follow the management and operational model of Emirates.

The success of Emirates is strong evidence that companies can be both state-owned and well-run. The conventional narrative in the last 30 years has been that state-run companies cannot be profitable and competitive in the long term. However, Emirates has run counter to this orthodoxy by having a largely hands-off shareholder structure, combined with a relatively independent management that can focus on growth and returns for the company rather than state interests. An executive with Emirates said the company benefits from a very hands-off relationship with the government. "The only thing the government has helped us with is the $10 million investment they gave us in the '80s. Since then, they have not invested anything more and have also not been involved in the day-to-day operations." Instead of focusing on an unpredictable and lengthy privatization process, the Indian government could keep its majority share and instead spearhead an internal restructuring to improve the airline's performance.

Air India also should reshuffle its management team by bringing in new executives who have experience in the airline industry, instead of recruiting purely from the government bureaucracy and civil services pool. Emirates' Clark had 13 years of aviation management experience when he came to the airline in 1985. Moreover, half the executives in Emirates are foreigners with private-sector airline experience, who can leverage their backgrounds to improve business processes, find efficiencies and identify future successes. This contrasts sharply with Air India's track record of recruiting executives who have limited private industry experience. Bringing in diverse management composed of both residents and foreigners would provide Air India with crucial expertise to run the business commercially and independently of government interests.

Lastly, Air India needs to reposition itself from being India's flagship airline, where it is losing the domestic market to budget airlines, to being a regional player, especially given its strategic location at the intersection of Asia, the Middle East and Africa. One of the key advantages that Air India shares with Emirates is location. The Indian subcontinent lost its status as a global airline hub in the 1950s. Previously, planes coming from Europe would stop in Karachi, Pakistan, and Mumbai before moving further east. But because of political instability and general mismanagement, the region was eventually surpassed by Middle Eastern airlines operating in the gulf. Air India can reclaim its position as a hub by improving its operations and focusing on growth.

Moreover, the airline has two inherent advantages over Emirates in the long run. The first is India's status as a fast-growing emerging market with a large population. According to data from airline trade association IATA, India's air traffic has seen double-digit growth for the last four years. This means that there will be an enormous demand for outbound international flights in the future, while most of Air India's competitor budget airlines only fly domestically. Additionally, there will continue to be strong inbound flight demand to India as the country improves its attraction as a vibrant economic and tourism hotspot.

For this transition to succeed, the Indian government needs to adopt an operational model for Air India that is like Emirates and carry out a one-time financial restructuring by lowering the high levels of accumulated debt through equity infusions. An improvement to Air India's financial position, spearheaded by a new management team, will allow the airline to pursue growth opportunities while taking advantage of the country's enormous economic potential.

These recommendations are practical. It has simply been too difficult for Air India to privatize; therefore, it is reasonable for the operation to adopt a model of a successful state-owned airline. This model would allow the airline to turn a profit, expand, and do so with little cost to the government. Several foreign airlines have accused the UAE of subsidizing Emirates, but the accusation is not true. The airline received a one-time cash infusion when it began in 1985. Beyond a one-time debt reduction, it would likely cost the Indian government relatively little to turn around Air India. The government would do well to pursue this third option of successfully repositioning a struggling state-owned company.

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How Digital Transformation Is Revolutionizing Value Chains in Kenya

In this article, the authors offer three case studies of businesses that are disrupting the status quo in Kenya's economy. Twiga Foods is creating efficiencies in the food market while reducing waste, Lori Systems is tackling the perplexing problem of transportation logistics, and venture capital fund Novastar is investing in rising local entrepreneurs.

Beginning in 2000, the emergence of the "Africa Rising" narrative among the international business and policy community has inspired a newfound optimism for economic development in sub-Saharan Africa. However, the dramatic deceleration in economic growth in key African economies in 2010 – primarily due to the commodity crisis – has dampened optimism and created challenges for investors and policymakers alike. Still, productivity has continued to increase in non-resource dependent economies. With growing youth populations, urbanization and technology change, the African continent is still a source for optimism and potential. Projected to be the second-most populated continent by 2050 with approximately 1.4 billion inhabitants, Africa's economic potential is palpable in megacities such as Lagos, Nigeria; Nairobi Kenya; and Kinshasa, Congo.

Technology, particularly the widespread use of mobile phones throughout the continent, has created a space for Africa to innovate and flourish outside of commodities.

Technology, particularly the widespread use of mobile phones throughout the continent, has created a space for Africa to innovate and flourish outside of commodities. M-Pesa for example, a mobile phone-based money transfer service, is the most widely used bankless payment system in the world. M-Shwari, Kenya's leading digital microlending service linked to M-Pesa, has now lent over USD$2 billion to over 1.5 million Kenyans. As a result of Kenya's creation and adoption of innovative technologies, millions of people make phone calls despite never having used a landline phone, receive loans without ever having had a bank account, and surf the internet without ever having used a desktop computer.

These digital innovations are not only occurring in finance, they are happening in countless other countries throughout the continent, revolutionizing African value chains. We had the opportunity to observe these innovations firsthand this summer. We conducted research and interviews in Senegal, Ivory Coast, Kenya, Nigeria and South Africa, and observed rising companies that are tackling old problems with new technologies. These ranged from digital platforms that connect the diverse actors in a given market throughout the creation and purchase of consumer goods, to logistics platforms involved in cargo-transport value chains, to a digital-meets-physical marketplace linking farmers and vendors to fair markets.

The three cases highlighted in this report are examples of how these companies often provide digital solutions to concrete problems. Because these business models are often imported, the traditional – and often highly bureaucratic – corporate rules may be circumvented in practice. Competition to these innovative startups remains quite limited as larger multinational corporations have found it difficult to penetrate these challenging markets, which require juggling complex government regulations and foreign societal norms. The result is a basket of innovation and flourishing potential for local entrepreneurs.

Case 1: Twiga Foods

In and around Nairobi, the marketplace for produce is fragmented. Most fresh food is sold in stalls by individual vendors who travel several kilometers to buy it wholesale. Grant Brooke, a Nairobi-based economist, studied the local market and noticed several gaps: With five to seven middlemen demanding a margin between farm and table, the industry is plagued by logistical issues and corruption. As a result, food spending comprises over 40% of an average household budget. High prices and inefficient grocery stores mean that consumers live hand to mouth – buying daily the food they will consume in the next 24 hours. In turn, such consumption habits make farmers reluctant to increase their investment because the demand from the market is uncertain. In fact, the United Nations Food and Agriculture Organization estimates that between market uncertainty and inefficient supply chains, Kenya's food waste tops 30%.

Brooke created Twiga Foods in 2013 to solve these problems. A two-sided, mobile-based market that connects farmers directly to vendors, Twiga is improving the agriculture value chain and reducing costs of food for the consumer. On the demand side, vendors place orders through Twiga's app, or more commonly, through their Twiga delivery person. Orders are aggregated, sent to a pack house and fulfilled within two days. On the supply side, Twiga orders produce from farmers in advance and purchases it at established points (often petrol stations) for fixed prices. They also have a cold storage facility to hold produce not sold immediately. Although the business is still young, Twiga has seen some early successes. Their model has reduced food waste in the supply chains in which they intervene. According to Brooke, "Our post-harvest loss rates are at 4%," compared to 30% in the informal sector.

Twiga's model is disrupting Kenya's produce value chain by formalizing it. For each transaction chain, Twiga displaces five to seven middlemen. Fewer middlemen means fewer opportunities for bribes, so Twiga's direct model also reduces corruption in the market. On the supply side, Twiga guarantees sales and certainty for farmers, allowing them to command better prices and increase their production levels with no fear of waste. On the demand side, Twiga allows vendors to order exactly what they want, when they want it, and they no longer need to walk to wholesalers to obtain produce.

Twiga is beginning to sell to second- and third-tier markets (i.e., grocery stores) that are attracted by the model's ability to eliminate corrupt middlemen. The efficiencies and savings created by Twiga's model will likely lead to fewer larger players in Nairobi's produce industry. As Twiga is starting to use this model to offer credit to farmers and vendors, the implications for disruption extend to other value chains as well. According to Brooke, there are 52 other cities in Africa where the market for produce operates in the same way. Twiga plans to apply the same model to disrupt produce value chains across the continent, which has implications for agriculture markets far beyond Africa.

> High population growth on the continent and unique technology innovations are viewed as the most powerful drivers for business growth.

Case 2: Lori Systems

One of the key challenges for African industrialization and development is logistics, particularly transportation logistics. Transportation costs on the continent are relatively high due to infrastructure deficits, high tariffs, corruption and other causes. Poor infrastructure forces businesses to rely on trucks instead of rail, and the lack of a centralized system often leads to inefficient marketplaces and communication systems. The impact on businesses is large. For example, when moving cargo within a country in Africa, logistics can represent an average of 75% of total cost, compared with an average of 6% in the United States. These costs are three times higher in products such as cement and fertilizers.

Inefficiencies occur across the transportation value chain, but most delays in trucking can be found at loading and unloading terminals due to problems such as port constraints, weather conditions, truck mechanical problems and operational delays. For example, for a 12-hour drive, trucks can wait an average of three days on each onloading/offloading station, resulting in 92% of idle time. These challenges hinder opportunity in a market evaluated at $180 billion for the African continent and $4 billion for East Africa.

Lori Systems is a Kenyan tech-enabled logistics optimization solution that provides flexibility and centralized coordination for trucking companies. A two-sided marketplace, Lori Systems matches truck and cargo owners with grain, fertilizer, cement and sugar industries. Lori has contracts with companies including Cargill, Pembe and Unga, which combined control more than 50% of the market in the region. Lori's main value-add is centralizing and analyzing data in order to make data-driven decisions possible. For example, if a truck is arriving at a port that is closed due to operational delays, its system will feed off historical data to determine the expected delay and redirect cargo as required, thereby saving time for the client.

According to customers, Lori Systems's service has resulted in 4% to 5% direct costs savings, with additional impact coming from improvements in performance, efficiency and overall operational stability.

> In Africa, investors play a critical role in bringing African entrepreneurs' disruptive innovation to the next stage.

Case 3: Novastar Ventures and Soko

Rapid digitization in Africa is also creating a flurry of new, innovative investment opportunities. Novastar Ventures, a venture capital fund manager based in Nairobi, is dedicated to unleashing East Africa's potential by supporting rising entrepreneurs who are transforming local economies. Novastar makes investments across numerous sectors, but all its investments share something in common: They are all innovative business solutions that leverage technology, especially those that widen market access, reducing prices and costs, and improving the quality of goods and services.

For instance, Soko, one of Novastar's recent investments, is disrupting the global crafts supply chain by using mobile technology to create a marketplace that connects more than 1,800 independent Kenyan craftsmen with over 400 international retailers worldwide, including American retailers Nordstrom, Anthropologie and Fossil. The artisan sector is the second-largest employer in the developing world after agriculture, worth approximately $32 billion every year, but artisan activities remain largely informal and most of production takes place in small, family-owned workshops that are not connected to the larger value chain.

An ethical fashion company, Soko tackles this problem through its proprietary mobile-based management system, which connects independent craftsmen to global markets. Through their mobile phones, Kenyan craftsmen are brought together into a virtually integrated workforce, a so-called virtual factory, where production is managed efficiently thanks to a high-tech, demand-responsive manufacturing system that matches artisan capacity to real-time global demand. Artisans receive purchase orders, manage their inventory and get paid directly through their mobile phone. This innovative business model has significantly increased production efficiency, resulting in reduced waste, lower prices for consumers and higher earnings for local artisans, who have on average seen their income increase fivefold.

Investors Are Fostering Digital Transformation

The opportunity of Africa's digital transformation is being recognized by private equity and venture capital investors alike. High population growth on the continent and unique technology innovations are viewed as the most powerful drivers for business growth. According to Nirag Varia, investment director at Novastar Ventures, technology-enabled businesses are necessary to reach the long-tailed, low-income mass market in Africa.

In the private equity space, most successful firms have found a sweet spot in the $10 million to $20 million ticket size range to harness company growth, but certain local players are ready to invest up to $100 million in a single company. Irrespective of ticket size, funds such as AFIG, ACA Group and Emerging Capital Partners (ECP) have expressed that an active, hands-on role of investors is needed to nourish and grow the businesses and ensure expected returns. According to Johan Ferreira of ECP, either due to a lack of qualified middle management or simply a lack of familiarity with taking private equity, most African companies today require support provided by more active investors or that of other third-party professional service providers with functions ranging from recruiting to bookkeeping.

In Africa, investors play a critical role in bringing African entrepreneurs' disruptive innovation to the next stage through inputting not only capital, but also experience in other geographies, financial expertise and operations. Twiga Foods, Lori Systems and Novastar Ventures are a few examples of how companies are using digital technology to transform Kenya's value chains and the important role of investors to boost the leapfrogging growth. In some other cases in Africa, unique scenarios such as policy environments, or cases in which technology infrastructure is more mature than hard infrastructure, have also led to value chain innovations that haven't been implemented anywhere else in the world. As Africa's economies continue to overcome challenges, innovations must be considered in imagining the future of African and global growth.

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Will Startups Fuel Korea's Next Economic Miracle?

When it comes to incubating startups, it seems that South Korea has it all: a strong economy, a highly educated citizenry and a renewed focus on innovation. Despite these advantages, South Korea has yet to achieve the kind of success seen in Silicon Valley. The country's tradition of family-owned conglomerates and a dearth of second-stage funding are two of the reasons why the startup scene hasn't reached its full potential.

South Korea continues to be held as a remarkable model for economic development due to its rapid growth from the 1960s to the 1980s – the so-called Miracle of the Han River. According to the World Bank, in 1960, Korea was an agricultural economy with a gross domestic product of $4 billion and per capita GDP of $158. In 1996, just 36 years later, Korea entered the ranks of developed countries as a member of the Organization for Economic Cooperation and Development (OECD). In 2017, Korea's GDP totaled $1.5 trillion, with GDP per capita at $29,742.

> Because the path to IPO is long, angel investors, who typically have less capital and smaller portfolios, are reluctant to invest.

However, Korea's economic growth rate has slowed from 8.7% in the 1980s and 6.3% in the 1990s to just 2.8% in 2017. There is wide consensus that the export-driven growth model used in the second half of the 20th century has reached the end of its run. In August 2018, Chung-Ang University Economics Professor Choong-Yong Ahn published an article in the East Asia Foundation's Policy Debates discussing the loss of Korea's "economic mojo." The article highlighted the issues of not only slow growth but also the increasingly problematic productivity gap between the large family conglomerates (also known as *chaebols*) and small and medium-sized enterprises (SMEs), and the wage gap between permanent and temporary employees. South Korea now has a significant challenge to solve: It must spur not just macroeconomic growth but inclusive growth that benefits all parts of society, especially vulnerable populations. The way to do this, Ahn argued, is by focusing on innovation.

For this reason, there is a new attention on the startup ecosystem in South Korea. Startups will be a key contributor in innovation and inclusive economic growth going forward. In addition, innovation through startups can play an important role in solving other pressing social issues, such as high youth unemployment, by creating jobs and transforming the economy. In a February 2018 *Tech In Asia* article, Park Tae-hyun, president of the Korea Foundation for the Advancement of Science and Creativity, which hosted the 2017 global conference Startup Festival, said, "In our foundation, we have two major missions. One is the dissemination of science culture. The second mission is nurturing talents in young people. We need to make new jobs. This is a necessary and urgent mission."

The nascent Korean startup ecosystem is still growing. According to the country's Small and Medium Business Administration, there was virtually no startup scene in 2000, with less than 9,000 startups. That number reached about 25,000 in 2010 and increased slowly after that, hitting a total of around 30,000 in 2015. The Global Entrepreneurship Monitor reports that there are around 500,000 entrepreneurs in South Korea, compared with 27 million entrepreneurs in the United States. There are a handful of widely acknowledged Korean unicorns: search engine Naver, messaging service Kakao, e-commerce company Coupang and mobile commerce company Yello Mobile. While these statistics demonstrate growth, many opportunities remain untapped in the startup sector.

Research shows that startup success depends on the development of a startup ecosystem. Important components of the ecosystem are venture capital (VC) availability, the regulatory environment and the education system. The government has implemented various programs to improve the startup ecosystem along these dimensions, particularly in the availability of VC. In 2013, President Park Geun Hye's administration promoted VC growth by launching a fund that matches angel investment, as well as enacting a fiscal policy of tax deductions for angel investors. In conjunction, the government partnered with VC firms and accelerators to form an incubator program called TIPS (Tech Incubator Program for Startups). Current President Moon Jae-In has further emphasized startup growth priority, declaring, "We need to make Korea a startup country full of entrepreneurial ventures." In 2017, the Small and Medium Business Administration was reorganized into the Ministry of SMEs and Startups to emphasize the importance of support for both.

As a result, Korea has seen significant growth in available funding and accelerator programs. According to the Ministry of SMEs and Startups, there was a total of $1.4 billion of new venture investment during the first half of 2018 alone, which represents a 61.2% increase from the same period in the previous year. The first half of 2018 also saw the creation of 10 venture investment companies and 45 accelerators.

Korea is known for its advanced high-tech industry. The Global Entrepreneurship Monitor categorizes South Korea as an "innovation-driven economy." Korea is also one of the most highly educated countries in the world, with 66% of 25- to-34-year-olds holding tertiary qualification, according to OECD data. In addition, the World Bank's Doing Business 2018 report ranked South Korea fourth on overall "Ease of Doing Business" and ninth on "Starting a Business," taking into account key factors including minimum capital requirements, number of required procedures, and the time and cost required for an SME to formally operate.

So, what's preventing South Korea from achieving full-blown Silicon Valley-like success? On the surface, Korea's startup ecosystem looks as though it is set up for success. However, challenges remain at every stage of the startup lifecycle, which prevent Korea from becoming a more entrepreneurial country.

The Funding Conundrum

South Korea has one of the highest rates of government backing per capita for startups. However, in reality, it is difficult for startups to obtain loans from banks or mid- to late-stage funding from domestic VC firms. The increase in government funding has largely been directed towards early-stage startups, enabling them to easily obtain seed funding within the $30,000 to $70,000 range. But it is much more difficult for entrepreneurs to secure second-stage funding in the $90,000 to $300,000 range and sustain growth. This lack of second-stage funding has been coined the "death valley" between inception and VC funding -- typically the first six to 12 months after launch. In a *Forbes* article, Derik Kim, chairman of the Global Entrepreneurs Foundation, said, "The government has pledged a lot of money, but it's not efficient because it's too complicated -- both the supporting procedure and the requirements for utilizing the money." The government often requires startups to meet conditions that are more realistic for mature companies, and its regulations ban anything not explicitly permitted. The 2017 McKinsey "Startup Korea!" report found that 70% of the world's top 100 startups would find their business models illegal or noncompliant with Korea's regulations.

> Korean firms lack the skills, talent or mindset to grow beyond the domestic market.

In addition, despite government support for angel investment, it remains insufficient because there is little viability of successful exits. According to McKinsey, fewer than 2% of Korean startups exit via merger or acquisition (M&A). They also found that 42% of Korean founders surveyed in the information and communications technology (ICT) sector see little chance of M&A as a viable exit path. Instead, most Korean startups hope to exit through an initial public offering (IPO), but the average interval between launch and IPO in Korea is 13 years, compared to Silicon Valley's six to seven years. Because the path to IPO is long, angel investors, who typically have less capital and smaller portfolios, are reluctant to invest. Startups need to focus on M&A to attract both domestic and global buyers. Domestic buyers are limited because chaebols are reluctant to recognize synergies with startups and because startups fear that chaebols will steal and replicate their ideas. On the other hand, global buyers have the network and resources to take a Korean startup into other East and Southeast Asian markets. Viva Republica, the financial technology company behind revolutionary financial services app Toss, decided to consider international expansion only after a $48 million strategic investment from Paypal in early 2017. In a TechCrunch.com interview, founder SG Lee said, “We can learn a lot. [Paypal’s] past history is quite similar to where we are now. When we have critical mass in Korea, then we will consider how to attack global markets.”

> The Korean entrepreneurial culture is also in need of more champions who can foster the community and prove that exits are possible.

Meanwhile, the only investors capable of supporting more mature startups have been foreign investors. Coupang grew rapidly because of its foreign investors, including SoftBank, Sequoia Capital and BlackRock. Viva Republica also received all of its Series C funding from foreign VC firms including Goodwater Capital and Altos Ventures. Because foreign support has proved vital to growth, the government has made stronger efforts to attract foreigners and foster a more international entrepreneurial culture. However, foreigners still struggle with bureaucratic red tape, a lack of diversity and limited domestic ambitions in Korea. Visa waits are often months long, and the government requires a Korean partner to own 50% of any business to access government funds. At the same time, Korean firms lack the skills, talent or mindset to grow beyond the domestic market. They neither desire nor attract sufficient foreign talent and rarely have plans to expand globally despite the stiff competition in the domestic market. A 2014 McKinsey survey on Korean ICT startup founders found that only 22% of startups received 10% or more of their revenue from foreign markets. Alex Gershon, an American citizen who worked in Korea for two different startups, recalled being the only foreigner in either office. He had been hired as customer support only after a startup realized the majority of its users were foreigners.

There is also a lack of diversity among Korean entrepreneurs. The Korea Startup Ecosystem Forum found that 91% of Korean startup founders are male, with the average entrepreneur being a male engineer in his mid-30s. Youngjun Kong, a Korean banker-turned-entrepreneur, also observed that, when he founded a startup, his peers were male ex-consultants and ex-bankers in their 30s. Korean startups also rarely begin with the intention to expand beyond Korea because of deep language and cultural barriers that the government or domestic investors don’t help them overcome. For example, Korea ranks 30th out of 80 countries on the EF English Proficiency Index because English education focuses on grammatical rules more than practical communication. In contrast, Singapore ranks fifth. This is another reason why foreign investors fail to see the appeal of investing in a purely domestic startup. Korean startups may need to think globally as a survival strategy, given that the domestic market is easily saturated by one or two major players and ideas are quickly replicated.

Startups Require Bravery, Risk

The culture and societal values around entrepreneurship have also been a significant barrier to growth. Historically, Korean society has traditionally been risk-averse and places higher value on financial stability and professional prestige. According to the OECD, less than 40% of working Korean adults cite positive beliefs about entrepreneurship as a career, and youth and women in Korea are less likely to become entrepreneurs than in most other OECD countries. On the Global Entrepreneurship Monitor’s Entrepreneurial Spirit Index, which measures entrepreneurial awareness, opportunity perception and entrepreneurial self-efficacy, Korea falls at -0.11, compared with the U.S. at 0.15 and Israel at 0.28. On societal perception of entrepreneurship as a good career choice, Korea also ranked 49 out of 52 countries. For this reason, startups find it extremely difficult to attract top talent away from more stable careers. Youngjun Kong was unable to find experienced developers willing to give up their stable jobs at larger companies, saying, “They would much rather stay a few years with a *chaebol* and earn a higher income than to work at a startup and get paid very little.”

Despite the challenges, Korean entrepreneurs have significantly impacted the economy, and many industries have changed in response. The banking industry now considers SMEs as a new source of revenue as large companies have slumped; SME loans reached record growth since 2008. The demand for affordable office space from entrepreneurs has also encouraged co-working startups to tackle Korea's expensive real estate market. Korea's *jeonse* system requires that tenants make large, lump-sum deposits -- at anywhere from 50% to 80% of the market value -- instead of monthly rent to lease an apartment or office. This practice made renting office space nearly impossible for entrepreneurs, until startups like WeWork came in with the capital to rent to SMEs, foster local communities and lend more legitimacy to new businesses. Additionally, global diversity is slowly being introduced by foreign-born or foreign-educated Koreans, or *gyopos*. *Gyopos* have an understanding of the Korean market but are more willing to take risks, have broader networks and think long term, both domestically and globally. Coupang's founder, Bom Kim, is a U.S. citizen who studied at Harvard. Ticket Monster, a startup that sold to LivingSocial for over $350 million, was founded by a Korean-American who could barely speak Korean. Many of them have been attracted by Korea's high mobile penetration rate, ICT innovations, and growth opportunities. The success stories of startups, combined with the rising youth unemployment and lack of opportunities with *chaebols*, have encouraged more Koreans to brave the uncertainty of entrepreneurship and pave their own path.

The government will continue to have a significant role in the future of Korean entrepreneurship. The startup ecosystem has been established, but the government will need to ensure that resources are being efficiently allocated to the right players in the long term and encourage global-mindedness in domestic startups. Early-stage funding is plentiful, but more diversified options are needed to boost long-term investment. The government will be key in attracting domestic and foreign angel investors, VC funds and accelerators for startups at every growth stage. It can also be instrumental in fostering entrepreneurism in the national education system.

The Korean entrepreneurial culture is also in need of more champions who can foster the community and prove that exits are possible. There are success stories of growth, but the government has yet to support successful global exits and demonstrate that exits benefit the entrepreneurs, the industry and the economy by putting the capital back into investing and bringing back experienced founders as mentors and leaders. There have been some incubators and accelerators to cultivate that talent, but most domestic accelerators are themselves at an early stage and lack mentors with direct entrepreneurial experience. The government should import successful startup mentors who can help develop non-financial support capabilities and familiarize foreign companies with Korean startups to promote more M&A opportunities. At the same time, Korean startups should be educated on foreign investors and overseas opportunities to find growth opportunities beyond the domestic market.

Korea has yet to tap into its full potential for economic revitalization through entrepreneurial growth. McKinsey estimates that, if Korea were on par with Israel's entrepreneurial growth, the country could boost sales from startups to $300 billion by 2020 and create hundreds of thousands of new Korean jobs without increasing dependence on its chaebols. Korea has been a leader in economic growth and innovation in many ways, thanks to its strong business environment, government investment in innovation and unrelenting spirit. Much of that can be redirected towards entrepreneurial growth if all players work together to create a sustainable and global ecosystem.

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