



# Higher Education: Investing in Future Leaders

How Impact Investment Can Enable Underprivileged Talents  
to Access Best-in-Class Higher Education

# White Paper



---

# 1

---

## Benefits of Best-in-Class Higher Education

---

1.1 The Value of Higher Education	16
1.2 A Disadvantaged Background Makes Access to University Harder	19
1.3 The Benefits of Attending Best-in-Class Universities	27
1.4 Problem Statement and Aims of the Report	31

---

---

# 2

---

## Equal Talent but Unequal Access to Best-in-Class Higher Education

---

2.1 Biases in Selectivity of Best-in-Class Universities	35
2.2 Biases in Financial Assistance Schemes	41

---

---

# 3

---

## Support Exists but Novel Financing Solutions Are Needed: The Expanded Role of Impact Investment

---

3.1 The Growing Gap in Public Funding	47
3.2 The Impact Investment Opportunity	53
3.3 The Need for Novel Financing Models	63

---

---

# 4

---

## Metrics for Evaluating Impact Investments in Higher Education

---

4.1 Challenges	70
4.2 Proposed Metrics	77

---

---

# 5

---

## Conclusion

---

5. Conclusion	83
---------------	----

---

---

Appendix	86
References	88

---



# Foreword Credit Suisse

Dear Reader,

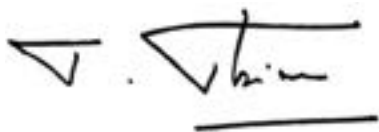
Education is one of the most powerful resources available to support the growth of nations, bestowing enormous material and non-material benefits. For students, it is a gateway to better jobs, higher income and a better quality of life. For the countries they live in, it promotes prosperity by, among other things, fostering an internationally connected network of leaders and innovators.

Although the wealthiest members of these societies often have the means to access quality higher education, bright and energetic students from less privileged socio-economic classes face daunting barriers. As a result, a great many underprivileged talents are not getting the access they would deserve to the world's best-in-class schools.

At Credit Suisse, we see a growing number of clients interested in generating a financial return through investments that encourage positive social change – an approach commonly known as impact investing. As a global bank, we have been a leading innovator in impact investing and have mobilised significant capital to not only generate solid financial returns for investors, but also benefit society at large. Up until now, there has been little information available on how to use this approach in the higher education sector. With this report, which we have commissioned from the INSEAD business school, we aim to fill this gap.

The report sheds light on the challenges facing higher education and proposes some innovative solutions for interested investors. We hope that it sparks interest among the investment community and that it will provide food for thought and foster new ideas.

We wish you an inspiring read and invite you to contact us for further questions.



**Tidjane Thiam**  
Chief Executive Officer, Credit Suisse





# Foreword INSEAD

Dear Reader,

INSEAD is known to be the most diverse international business school in the world with our current MBA class of 1,000 students representing 80 countries. Across our three campuses, students find the opportunity to network and build life-long relationships with top business thinkers from around the world to be a key return on investment of their education.

In 2015, The Economist listed our MBA programme in “The Global Top 10” with especially high rankings in “potential to network” and “personal development.” Also this year, Business Insider ranked INSEAD as #4 for best school for networking and #1 for best social life. Clearly, networking is a valued part of any highly regarded business school education.

As we look to the future, the strongest business school networks will include students from developing and emerging nations. Although most top-tier business schools provide significant financial aid to students when necessary, few mechanisms are specifically in place to boost the number of students from low-income nations.

Investing in Future Leaders, a timely report commissioned by Credit Suisse, examines how impact investment can offer the most talented students from low-income nations access to a premier education while delivering a sound financial return. The underlying premise is that these underprivileged students will ultimately help their countries to broaden their networks and join the global power elites who make decisions with regards to their future.

At INSEAD, we strive to develop “value-driven global business leaders,” and this report aligns perfectly with our mission. We hope you find it as inspiring as we do.



**Ilian Mihov**  
Dean of INSEAD



# About the Authors

## Dr. Sami Mahroum

### Director of IIPi

Dr. Sami Mahroum is the Director of INSEAD's Innovation & Policy Initiative (IIPi), a post he has held since March 2010. Prior to that, Dr. Mahroum was a Senior Analyst at the Directorate of Science, Technology & Industry with the OECD in Paris where he worked on innovation and policy issues. He holds a Doctorate in Business & Social Studies from the German Armed Forces University in Hamburg, with a special focus on human capital development.

**Contact** [sami.mahroum@insead.edu](mailto:sami.mahroum@insead.edu)



## Dr. Yasser Al-Saleh

### Senior Research Fellow IIPi

Dr. Yasser Al-Saleh is a Senior Research Fellow at the IIPi. He was awarded a PhD from the Manchester Institute of Innovation Research (University of Manchester) for his novel examination of the emergence of clean-tech industries using an innovation system perspective. His current research spans several major areas including sustainable development, public policy, and business model innovation.

**Contact** [yasser.alsaleh@insead.edu](mailto:yasser.alsaleh@insead.edu)



While this report was authored by Dr. Sami Mahroum and Dr. Yasser Al-Saleh, it has also benefited from the research assistance of Aruba Khalid of the IIPi and the peer-review of several experts, including Dr. Kai Chan and Dr. Allen Gomes. However, the usual disclaimer applies – the responsibility for its contents and any remaining errors rests entirely with the authors.

# Executive Summary

Research has shown that higher education is correlated with lower unemployment and higher income, making it a powerful tool in combatting poverty. Yet these economic gains are only the tip of the iceberg for those students who attend prestigious universities, located in high-income developed countries. For students who attend these best-in-class tertiary institutions, the benefits extend to gaining access to the networks of the affluent and influential.

Yet low-income students, particularly those from low-income countries, are vastly underrepresented at these prestigious universities. There are a variety of reasons for this lack of presence at best-in-class institutions, including lack of awareness of the relative value of an education at different universities, biases within the university admissions process, and a dearth of financial assistance schemes for such students. Novel solutions are needed to increase the number of underprivileged but talented students from low-income countries in higher education, particularly at prestigious universities, in order to help alleviate the social and political marginalization of individuals in these countries.

With shrinking public funding and a corresponding rise in tuition, the need for financial assistance to access higher education is a growing concern. Entities have emerged to provide scholarships and loans to students who cannot pay for higher education on their own. Yet many of these financial aid programs fail to meet the needs of international students from low-income countries. It is estimated that studying for a year at Harvard costs what an average Sierra Leonean makes in over 100 years.

Impact investment is one viable solution that could be utilized to benefit underprivileged and talented students from low-income countries and receiving universities alike. Impact investing aims to address social problems while delivering a financial return for investors. Although the practice of impact investing has grown into a USD 60 billion market, it is currently at a nascent stage with respect to financing higher education. There is room to expand the role of impact investing from its current focus on primary education in order to address the largely untapped demand for high-quality tertiary education from students in low-income countries. The fastest growth countries in terms of demand for higher education in the next decade, in millions of students, are

India (7.1), China (5.1), Brazil (2.6), Indonesia (2.3), Nigeria (1.4), Philippines (0.7), Bangladesh (0.7), Turkey (0.7), and Ethiopia (0.6), all countries with a high proportion of low-income communities. We expect the potential target community of talented students that could benefit from impact investment programs for higher education to be in the millions.

Investing for impact in higher education is a promising prospect for students, investors, universities, and low-income countries alike. At present, low-income countries represent less than 2.5% of the members of the WEF (World Economic Forum) Global Agenda. In virtue of the typically higher employability and earnings potential of alumni of high-quality universities, the social and financial return from investing in such students constitutes a sound proposition. Moreover, by offering social impact products aimed at the best and the brightest in low-income countries, financial institutions are not only helping to expand the middle classes in these countries but also benefiting from the emergence of stronger ties with them.

There are unique challenges to overcome with respect to the evaluation of impact investments used for higher education before this valuable instrument can become widely used. It is critical that the evaluation consider social returns as well as financial gains, taking into consideration the double bottom line. In order to conduct an accurate assessment, there must be adequate time and scope to capture important medium and longer term outcomes, reliable measures or proxy measures for the key variables of interest, and rigorous execution of quantitative estimates of the size of the effect. Accurately measuring and reporting on both social and financial impacts will be vital to an emerging impact investment industry that needs to be both accountable and transparent.

The situation for talented but underprivileged students in low-income countries is dire. Their home countries are often unable to provide quality higher education, and universities abroad are often financially out of reach. Enhancing opportunities for these students through impact investment would not only provide them with life-changing education and certification, but would also give them access to elite global networks of influence that could result in significant benefits to their home countries.



# **1 Benefits of Best-in-Class Higher Education**

“ Research shows that **higher education is correlated with lower unemployment and higher income, making it a powerful tool in combating poverty.**



# The Value of Higher Education

The research literature evidences a strong correlation between higher education and social mobility, regardless of the income level of the parents of a student, their social class, or other initial life circumstances (Ghase-Lansdale & Brooks-Gunn, 1995; Haveman & Smeeding, 2006; Levine & Nidiffer, 1995; Milburn, 2012). Enhancing social mobility is held to interrupt the “transmission of disadvantage from one generation to the next” (Milburn, 2012: 1) that underpins many of the costly health and socioeconomic problems that hold back progress in poorer countries. Higher education is thus among the most valuable tickets out of poverty, making it important for policymakers concerned with rising inequality and the need to improve living standards.

Research shows that better educated individuals are more likely to be employed, to earn more and to enjoy better standards of living than those with lesser education since higher education provides the requisite knowledge, skills, and certification to access more lucrative career paths. For example, the 2012 US unemployment rate for university graduates aged 25 to 34 years was 7.1 percentage points below that for high school graduates. In 2011, median salaries for US workers with undergraduate degrees were almost 60% higher than for those with only high school qualifications. Furthermore, workers who had attended some university without graduating also earned more – approximately 14% – than those who had not attended at all. Overall, the difference between the earnings of university graduates and high school graduates increased by approximately 70% between 1971 and 2011 (Baum, Ma, & Payea, 2013).



## 1.2 A Disadvantaged Background Makes Access to University Harder

Access to higher education is influenced by family background through a combination of heredity and parental investments (i.e., nature and nurture). More affluent families tend to be better educated and to place greater emphasis on their children's learning habits and scholastic achievement. This results in superior cognitive and scholastic abilities, which prove advantageous when competing for entry into university (Cameron & Heckman, 2001; Chowdry, Crawford, Dearden, Goodman, & Vignoles, 2013; Cunha, Heckman, Lochner, & Masterov, 2006; Ermisch & Del Bono, 2012).

We define low-income countries as those with a Gross National Income (GNI) per capita of 1,045 US dollars or less, calculated using the World Bank Atlas Method. As shown in Table 1 and Figure 1, this group represents a total of thirty-six nations, most of which are concentrated in Africa and constitute 12.35% of the world's total population.<sup>1</sup>

Although recognizing that in every country there are rich families who are financially equipped to send their children to expensive and prestigious universities overseas, the majority of the population in these countries are low-income people who represent the most socially, politically, and economically excluded group on the global scene.

<sup>1</sup> <http://data.worldbank.org/income-level/LIC>



### Haiti

Population (Million)	10.46
GNI Per Capita (US)	810

Country Name	Population (Million)	GNI Per Capita (US)
Afghanistan	31.28	690
Benin	10.60	790
Burkina Faso	17.42	670
Burundi	10.48	260
Cambodia	15.41	950
Central African Republic	4.71	320
Chad	13.21	1,020
Comoros	0.75	840
Congo, Dem. Rep.	69.36	430
Eritrea	6.54	490
Ethiopia	96.51	470
Gambia	1.91	500
Guinea	12.04	460
Guinea-Bissau	1.75	590
Kenya	45.55	1,160
Korea, Dem. Rep.	25.03	N/A
Liberia	4.40	410
Mali	15.77	670
Mozambique	26.47	610
Myanmar	53.72	N/A
Nepal	28.12	730
Niger	18.54	400
Rwanda	12.10	630
Somalia	10.81	150
South Sudan	11.74	950
Tajikistan	8.41	990
Tanzania	50.76	630
Togo	6.99	530
Uganda	38.85	550
Zimbabwe	14.60	860

### Sierra Leone

Population (Million)	6.21
GNI Per Capita (US)	660

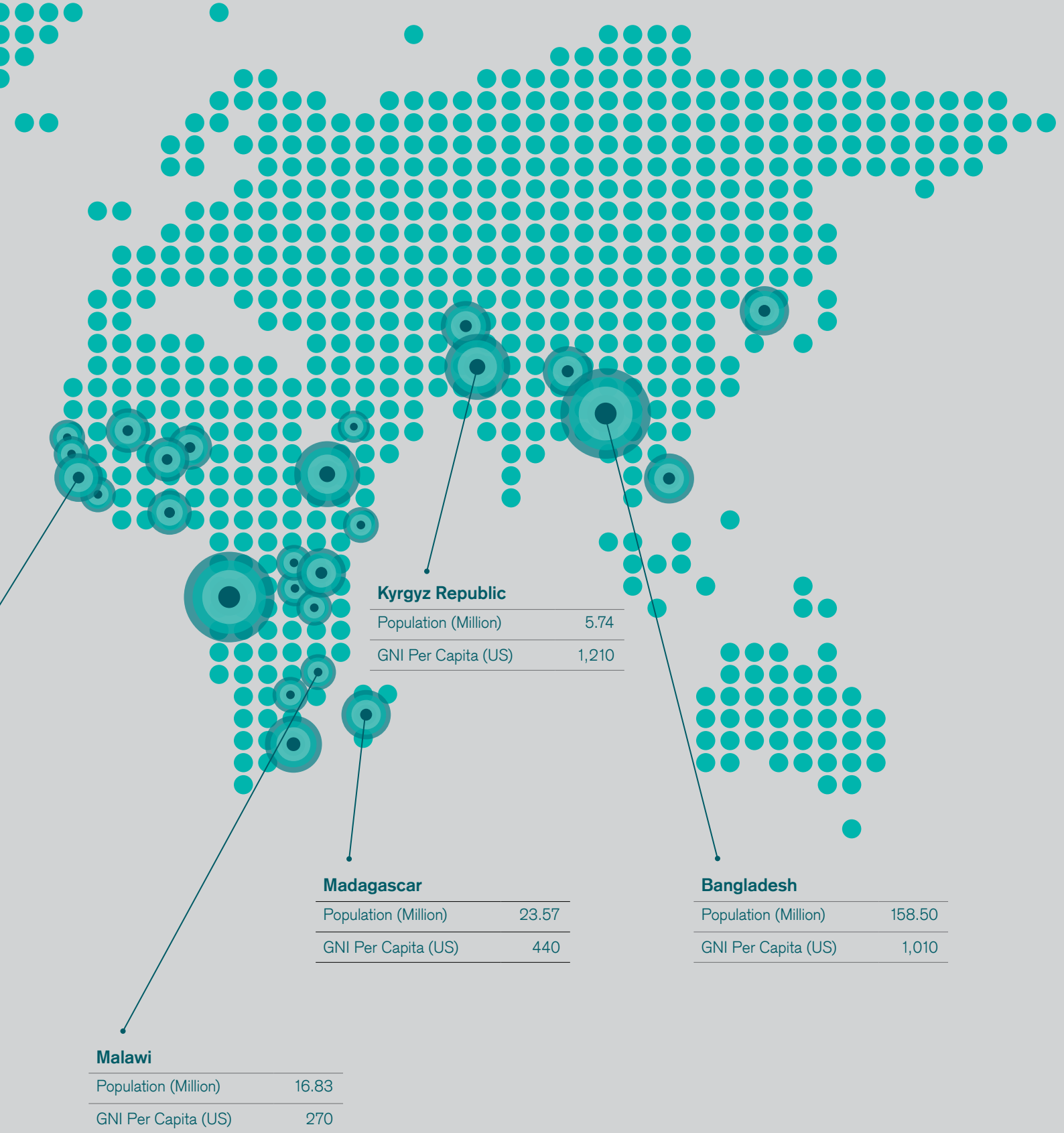


Table & Figure 1

## Distribution of Low-income Countries as per the World Bank's Definition

When students decide whether or not to enroll in post-secondary – or tertiary – education, which discipline to study and which university to attend, those from well-to-do backgrounds make a more concerted effort to secure entry into more reputable best-in-class institutions, with a track record of quality. In this report, we refer to such exclusive, top-tier institutions as best-in-class universities.<sup>2</sup> Table 2 presents an illustrative list of twenty prestigious universities listed by region, in alphabetical order. Bearing in mind that some regions have their own unique prestigious universities, the list deliberately includes ten non-US universities rated among the top regional universities in the latest QS World University Rankings by Region.<sup>3</sup> Our main criterion for inclusion was the degree of stringency in admission requirements, particularly with regard to admission rates and tuition fees. This selection was corroborated against the findings of the Times Higher Education World Reputation Ranking 2014,<sup>4</sup> which employs the world's largest invitation-only academic opinion survey of the most powerful global university brands. The list is by no means exclusive or exhaustive and is intended primarily to paint a picture that describes the current situation. There are undoubtedly many other high-quality and prestigious universities in other parts of the world.<sup>5</sup>

In contrast to applicants from poorer backgrounds, affluence allows applicants and their families to be less intimidated by the high tuition charged by prestigious universities, and to avoid associated barriers to higher education such as credit constraints or debt aversion. As Radford (2003) notes, "Even when poor families suspect college quality might vary, they have difficulty assessing it. And without a clear way to compare institutions based on quality, poorer families concentrate on sticker price." Thus, it is not only sticker price that dissuades poorer families from considering certain institutions, but also a lack of cultural capital such that the best-in-class universities are not even considered. Consequently, many students choose to study at a local university due to lack of information, financial reasons, or a deliberate desire to mingle with students like themselves (Hoxby & Avery, 2012; Leathwood, 2004; Reay, David, & Ball, 2005).

- 2 The classical work of German sociologist Max Weber indicates that prestige is an honor that is perceived by others and is distributed unequally as a dimension of social stratification (Weber, 1947). In this report, we argue that not only is the notion of prestige closely tied to social status, but prestigious education has also long been one of the main social mobility factors that explains both social determinants and the reproduction of power elites.
- 3 <http://www.topuniversities.com/regional-rankings>
- 4 <http://www.timeshighereducation.co.uk/world-university-rankings/2014/reputation-ranking>
- 5 Since 2012, the Times Higher Education magazine has published its annual 100 Under 50 Rankings. This is an attempt to showcase not only universities with centuries of history, but also rising stars under 50 years old that show great potential. It is interesting to observe the gradual emergence of elite universities around the globe beyond the traditional elite institutions in North America and Europe.

Table 2

## Examples of Prestigious Universities in the World\*

Region	University	Admission Rate	
		2013	2014
United States	California Institute of Technology	11%	8.1%
	Columbia University	6.9%	6.9%
	Harvard University	5.8%	5.9%
	Massachusetts Institute of Technology (MIT)	8.2%	7.7%
	Princeton University	7.3%	7.3%
	Stanford University	5.7%	5.1%
	University of California, Berkeley	20.8%	17.3%
	University of Chicago	8.8%	13.2%
	University of Pennsylvania	12.1%	9.9%
Yale University	6.7%	6.3%	
Americas Bloc Excluding US	McGill University	20.8%	N/A
	University of Sao Paulo	(8.8%)	(6.9%)
Europe	Grandes Ecoles	(9.1%)	(6.2%)
	Swiss Federal Institute of Technology Zurich	N/A	N/A
	University of Cambridge	(21.0%)	(20.8%)
	University of Oxford	(18.8%)	(18.6%)
Far East and Australia	Australian National University	N/A	N/A
	Seoul National University	(12.0%)	(16.2%)
	University of Hong Kong	(19.2%)	(12.5%)
	University of Tokyo	(28.1%)	(24.8%)

\* (non-official admission rate shown in parentheses)

“ **The playing field for admission into a best-in-class university is inequitable for applicants from disadvantaged backgrounds.**



This choice also offers the path of least resistance, as going to an elite school would entail far more effort – if not struggle – than going to a school where society says one belongs. When Silva, Snellman, and Frederick (2014) interviewed members of three generations of working and middle-class Americans, they found class inequalities in admission to best-in-class universities to be a function of a concept that they termed *saviness* – a combination of social, financial, and cultural capital that needs to be mobilized during the university-application process to ensure success. Such *saviness* appears to play a key role in deciding where to study, what to major in and what professional job to seek upon graduation. Hence, the underrepresentation of working-class students in best-in-class universities may be partly attributed to their lack of such *saviness*.

Nonetheless, the onus of underrepresentation does not fall only on the students and their families, but also on best-in-class universities, which historically have been known to pursue admission practices that tend to favor applicants from wealthier backgrounds (Hayes, 2014). For example, screening interviews weed out talented students from disadvantaged backgrounds who lack the polish and self-presentation skills of middle- and upper-class applicants. According to a study by the UK Office for Fair Access (2014), teenagers from the richest 20% of English families are seven times more likely to get into best-in-class universities than those from the most disadvantaged 40%. This is in spite of generous bursaries, or scholarships, that have been made available since the 1990s. Indeed, the gap between rich and poor with respect to the likelihood of entering a best-in-class university has not changed in fifteen years. A similar situation exists in the United States where there is the problem of so-called *legacy admissions*, wherein preferential treatment is afforded to applicants with a parent or other family member who previously attended the university (Freedman, 2013). After more than two decades of policy efforts to diversify student populations, only 14% of students who come from families with income in the bottom half of the population are found in the top US universities (Carnevale & Strohl, 2010).

Thus, for a host of reasons, the playing field for admission to a best-in-class university favors applicants from advantaged backgrounds. As such, for the comparably few from disadvantaged backgrounds that do gain entry, it marks an unparalleled opportunity to enhance their social mobility.



## The Benefits of Attending Best-in-Class Universities

Despite the recognized benefits of higher education for students from less advantaged backgrounds (Behrman, Rosenzweig, & Taubman, 1996; Brewer & Ehrenberg, 1996; Brewer, Eide, & Ehrenberg, 1999; Daniel, Black, & Smith, 1995; Loury & Garaman, 1995), it has been observed in some countries that it does not always lead to gains in employability or wage earning capacity (Livanos, 2010). For example, in Cambodia where the total enrollment rate in higher education institutions has increased exponentially in recent years, there has not been a corresponding improvement in employment and earning capacity. Inferior quality education is considered to be one of leading factors behind unemployment in Cambodia, as the skills of its tertiary graduates are often poorly matched to the requirements of the labor market, with many needing extensive retraining to find relevant employment (Rany, Souriyavongsa, Zain, & Jamil, 2013). Concurrently, it should be noted that the level of national economic performance is not always correlated with the quality of the education system. Many poor countries, such as Armenia, appear to have a higher quality education system – as judged by the Trends in International Mathematics and Science Study (TIMSS) rankings for example – when compared with those of richer countries. Additionally, the vast majority of countries – be them rich or poor – continue to send some students to top-tier foreign universities with reputable prestige.

The fact that students are often sent to these universities highlights the often unsung unique benefits of enrolling students in prestigious universities that go beyond achieving national gains in employability and living standards. A positive correlation between attendance at a prestigious university and subsequent labor market rewards has been established in a number of studies (Betts, Ferrall, & Finnie 2013; Loury & Garaman, 1995; Ono, 2003, 2008; Pfeffer & Fong, 2004; Zhang, 2005). These studies show that time spent in prestigious universities leads not only to higher financial rewards, but also to a higher likelihood of joining the social and economic elites. Graduation from a prestigious university is even considered a prerequisite for entry into some elite circles (Kendall, 2002). It is in this important respect that students who attend a prestigious university may gain a significant advantage over their peers upon graduation.

“ **Elite networks formed at prestigious universities, significantly enhance future employment prospects and potential earnings.** ”

The advantage accrued from and residing in relationships within influential networks constitutes a form of “social capital”<sup>6</sup> that significantly enhances a graduate’s future employment prospects and earning potential. Given that elite families actively seek to send their offspring to prestigious institutions, all students who attend these institutions have a greater opportunity to rub shoulders with the offspring of already affluent and influential families<sup>7</sup> who are often associated with those who control television networks, newspapers, and media empires that shape – if not formulate – public opinion in self-serving ways (Mills, 1956; Richardson, Kakabadse, & Kakabadse, 2011). It is perhaps no coincidence that the vast majority of US presidents, corporate leaders, and key political figures have all gone to prestigious universities, which coincidentally have received substantial support from governments and corporations in that country (Dye, 2014). Harvard, for example, receives the largest financial endowments of any academic institution in the world (Haynie, 2015). In this respect, Bourdieu (1996) argues that prestigious education reinforces existing social structures by maintaining disparities in status, power, and wealth that favor a select few.

Although warning that prestigious education may inculcate snobbery and a false sense of self-worth, Deresiewicz (2008) argues that the way students are treated by their university trains them for the social position they will subsequently occupy after graduating. While a less prestigious university trains its students for positions somewhere in the middle of the class system, elite students are encouraged to think of themselves as belonging to a meritocracy where their rightful place is at the top. Indeed, within the context of the US system, empirical research by Domhoff (2014) suggests that members of the upper class tend to graduate from just a handful of prestigious universities.

Empirical studies from other countries affirm the existence of similar social dynamics to what has been reported for the United States. For example, Gaxie's (1983) study of elite institutions in France concludes that most of its elite networks are a product of social class and educational advantage, with prestige in education the domain of the aptly characterized *Grandes Ecoles*, a system which serves as a "machine for classifying people" (Suleiman, 1997:21). Similar elite dynamics have been observed in Latin America. In Chile, Gazmuri (2001) examined the origin and evolution of elite groupings from 1930 to 1999 and found that most were formed during attendance at the *Universidad de Chile*. More recent research from Chile has shown a strong link between attending a prestigious university and subsequent social mobility and financial standing. Additional interesting research from Chile suggests that graduates of prestigious universities tend to marry and socialize with one another (Kaufmann, Messner, & Solis, 2013).

Other research on educational homogamy<sup>8</sup> confirms that a tendency for assortative mating has a significant effect on augmenting socioeconomic inequalities. In other words, power, social class, and educational ties often tend to be reinforced through marriage and family relations (Greenwood, Guner, Kocharkov, & Santos, 2014; Hou & Myles, 2008). Historical data from the United Kingdom also indicates that elite members of the aristocracy share links through kinship, marriage and attendance of a small number of colleges at the two ancient English universities of Cambridge and Oxford (Wakeford & Wakeford, 1974). Thus, the prestige of one's alma mater is among the most influential factors that characterize a person's class in the English establishment.

6 Social capital broadly denotes the potential collective value and economic benefit that may be derived by virtue of cooperation among particular individuals and groups.

7 It is reported in *Who's running America? The Obama reign* (Dye 2014) that 54 percent of corporate leaders and 42 percent of government leaders are graduates of just twelve US elite universities.

8 The Online Dictionary of the Social Sciences indicates that homogamy (in the sociological context) refers to marriage between individuals who are, in some culturally important way, similar to each other, for example in terms of socioeconomic status, class, gender, ethnicity, religion, or age. It is a form of assortative mating.



## Problem Statement and Aims of the Report

As the global economy has become more knowledge based, the importance of quality university education has risen dramatically. Despite the conclusions of a number of studies that attending prestigious institutions may produce greater payoffs for students from more disadvantaged family backgrounds (Dale & Krueger, 2002; Maclean, Harvey, & Kling, 2014), there has been limited progress in expanding access to financially disadvantaged students. Although this situation applies to students in developed countries as well, it is most dire for foreign students from low-income countries. Given the severe lack of financial support schemes in low-income countries in comparison with those available for students from high-income countries, innovative financing models are urgently required.

Accordingly, this report looks at ways of supporting such students to access prestigious institutions, particularly with respect to financial issues that hinder or facilitate entry. Among the most innovative financing models, which could be utilized for financing access to prestigious universities, is impact investment. The general idea behind impact investing is to channel additional funds – not available otherwise – from private and institutional investors to finance specific social challenges while delivering a financial return.

Going forward, this report aspires to achieve two things: to create a greater awareness and provide credible information about the scale and the underpinnings of the problem (Chapter 2); and to generate a discussion about existing intervention mechanisms and possible new solutions (Chapters 3 and 4). It should be noted, however, that although the report focuses on the case of low-income students from low-income countries, its findings are also largely applicable to low-income students from developed countries.





# 2 Equal Talent but Unequal Access to Best-in-Class Higher Education



## Biases in Selectivity of Best-in-Class Universities

In this chapter, we examine the multifaceted causes of the problem of access to high-quality prestigious universities, particularly for students from poorer countries. There are biases inherent in the university acceptance process and within financial assistance practices that contribute toward the inequity of access to prestigious universities.

A review of acceptance rates published by best-in-class universities indicates that gaining entry into such prestigious schools is getting more difficult every year. While it is true that these prestigious universities receive substantially more applications than they could ever accept, they do not discourage new applications because performance rankings and perceptions often equate excellence with rejection. As explained by a former Duke University admissions officer, “Everyone wants to keep their admit rate low because that makes you more selective, which gives a higher place on the college ranking... People in admissions say they do not pay attention to rankings, but of course they do” (Webley, 2013). Furthermore, school administrators are overly focused on asking why there are so few low-income students rather than honestly reflecting upon why there are so many wealthy students. After all, wealthy alumni are more likely to donate to their universities than poor graduates (Hayes 2014). Indeed, it is in the interest of prestigious universities to remain selective because this is the way they control the quality of their student intake. Some universities even admit students not based on academic merit, but to fulfill their own interests, which include growing the endowment and the prestige of the school, often at the expense of fairness and meritocracy.

Boliver (2013) examined the extent of fair access to some of the United Kingdom's most prestigious universities (namely, the Russell Group of universities<sup>9</sup>) using Universities and College Admissions Services (UCAS) data for the period 1996–2006 and her findings reveal that access to these universities is far from being fair. In particular, applicants from state schools and from black and Asian ethnic backgrounds are less likely to receive admission offers from Russell Group universities when compared with their equally-qualified peers from private schools and the white ethnic group. Consequently, working-class and/or black students are particularly underrepresented in the prestigious universities.

In the United States also, Ivy League schools<sup>10</sup> fall short in mirroring the US minority population (Carnevale & Strohl, 2013). For instance, Ramirez (2012) notes that in 2011 black students made up an average of 7% of Ivy League students, whereas the black population in the United States in 2011 was around 13%. Khan (2011) notes that black people made up just 0.8% of students at US prestigious universities in 1951. As a result of the serious discrimination that black students and staff experienced prior to the Civil Rights Movement in the 1960s, a so-called Black Ivy League was formed to denote a group of historically black universities that attracted the best and most privileged black students (Fleming, 1984).

The risks and hidden costs of enrolling working-class students as a small minority in prestigious universities are not to be taken lightly (Lyn, 2004). Working-class students in prestigious universities have been described as “strangers in paradise” who face the situation of feeling like “fish out of water” (Reay, Crozier, & Clayton, 2009). Without proper emotional support, students from communities that are marginalized within these prestigious institutions may face the risk of alienation from their peers and professors. To that end, McGrath (2013) details the challenges of being poor at some of the richest universities in the United States. She describes many students who, despite having full academic scholarships, subsisted on instant noodles for weeks and missed out on student social events they could not afford. It is not always easy for a poor person with financial hardship to adapt to and fit into the lifestyle of the upper-middle class, as they tend to share very little in terms of taste for music, food, and entertainment (Murray, 2013).

9 The Russell Group is an association of 24 public research-intensive universities in the United Kingdom (out of a total of 115 universities and 165 higher education institutions). (The Russell Group, 2015).

10 The Ivy League is a collegiate athletic conference comprising sports teams from eight private institutions of higher education in the United States. The conference name is also commonly used to refer to those eight schools as a group: Brown University, Columbia University, Cornell University, Dartmouth College, Harvard University, University of Pennsylvania, Princeton University, and Yale University.

Figure 2

# Percentages of Students from Low-income Countries in Relation to the Foreign Student Population at Prestigious Universities

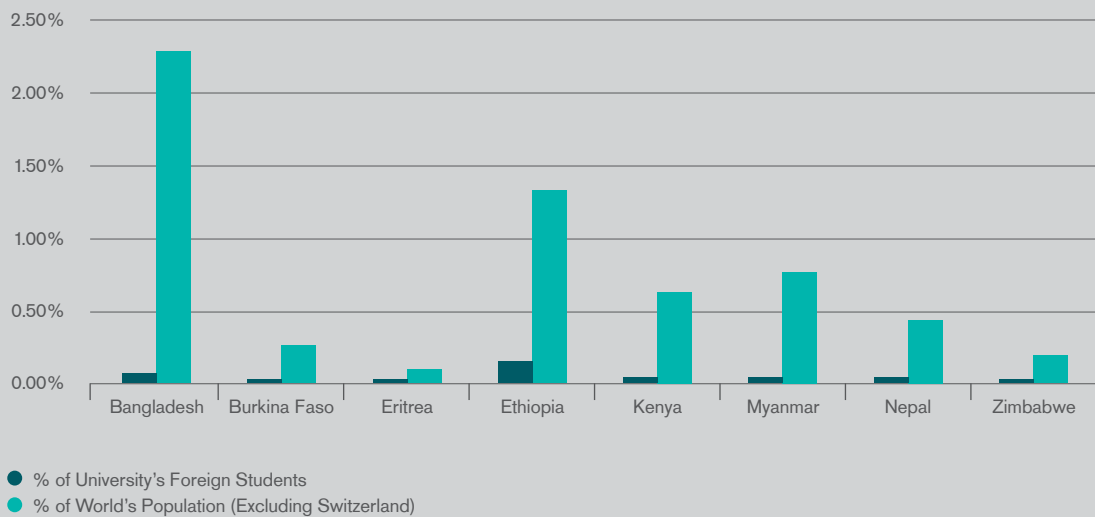
## Share out of Foreign Student Population



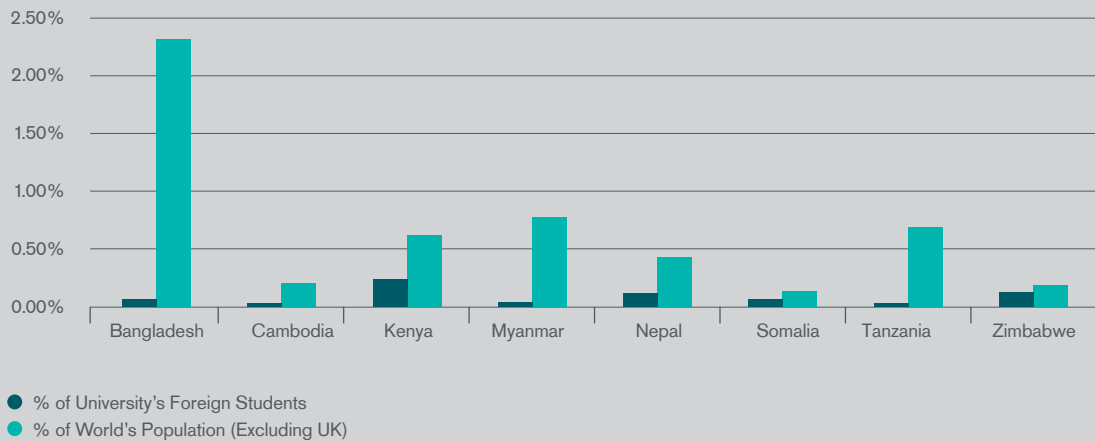
Figure 3

# Students from Low-income Countries in Two Prestigious Universities, by Nationality

## ETH Zürich, 2013



## Cambridge, 2013



Low-income students from developed countries might in this respect have a greater disadvantage than well-off students from low-income countries who may be more accustomed to the upper-middle class lifestyle. Nevertheless, apart from financial barriers, the two groups face similar problems in terms of overcoming legacy admissions problems. We attempted to determine the number of students from individual low-income countries, both through scrutiny of published statistics and by contacting admissions offices of prestigious universities (previously listed in Table 2). Unfortunately, it was impossible to obtain any historical nationality-specific data except in the cases of MIT and Cambridge University. As shown in Figure 2, data for single years was available for four prestigious universities, namely Harvard University (2011), Grandes Ecoles (2011), Princeton University (2010), and ETH Zurich (2013).

For further illustration purposes, please see Figures 2.1 which contain a breakdown of the nationalities of students from low-income countries in two of these universities and compares them to the size of their countries' population relative to the world's total population.

While it is not part of the mandate of any of these universities to educate foreigners at the expense of their own local students from low-income backgrounds, we find students from low-income countries to be extremely underrepresented among foreign students. The situation is even worse when considering that those students who do come from low-income countries generally come from well-to-do families and not from among the low-income communities of these countries.





## 2.2 Biases in Financial Assistance Schemes

All 20 of the prestigious universities listed in Table 2 offer some kind of financial assistance to national students coming from low-income backgrounds. However, there remains a distinct lack of such support for poor foreign students from low-income countries. Based on a review of support published on the websites of these prestigious universities and inquiries with their respective admissions offices, Appendix A details the kinds of financial aid offered to foreign students. In some cases, financial aid offered by universities is needs based regardless of whether the student is of local or foreign origin. Additionally, it is noteworthy that most of these universities identify external funding opportunities and loan schemes offered by private lenders that may help low-income students. Only a few prestigious universities (including Caltech and MIT) seem to totally disregard national origin as a consideration for financial assistance. Our analysis also found evidence that some universities engaged in accounting practices seemingly designed to enhance their apparent reputation as supporters of students from disadvantaged backgrounds: for example, giving students a check for 100 dollars in order to formally count them as an annual recipient of financial aid in official statistics.

“ Studying for a year at Harvard costs what an average Sierra Leonean makes in over 100 years.

In general, we found that while many prestigious universities in developed countries have genuinely sought to provide financial support to applicants from disadvantaged communities, most efforts do not extend beyond their national borders. For students from low-income countries, these best-in-class institutions thus remain inaccessible largely for financial reasons. To put the scale of the issue in context, according to income data published by the World Bank, studying for a year at Harvard costs the same as what an average Sierra Leonean may earn in over 100 years.

Enhancing cross-border admissions to prestigious universities is a non-trivial goal not only because it provides valuable education to people in developing countries but also because it brings them closer to elite circles in those very nations that manage important global resources affecting their home countries. Given that many developing countries lack institutions of higher education of comparable quality to those listed in Appendix A, their university-educated graduates remain at a distinct disadvantage in an increasingly interconnected global economy. For this reason, low-income countries may require altogether new financing models to support the enhancement of education which account for gains in social capital as an added return on investment. A critical review of existing financing solutions that are independent of prestigious universities is provided in the next chapter.



**3 Support  
Exists but Novel  
Financing  
Solutions Are  
Needed:  
The Expanded  
Role of Impact  
Investment**



## 3.1 The Growing Gap in Public Funding

Most advanced economies have policies to help underprivileged but talented students to access higher education. In most cases effort centers on public funding of their tuition which, like other public goods, creates various additional positive externalities.<sup>11</sup> By funding students to undertake tertiary study, governments help the students themselves as well as the wider population, which benefits from having better educated people drive their economy more effectively and from higher tax revenues on their increased earnings (Barr, 1993).

As can be seen in Figure 4, public funding is the dominant source of support for tertiary education in many advanced economies, including Canada, France, Finland, and Germany. The lion's share (70%) of expenditure on tertiary education across all Organisation for Economic Co-operation and Development (OECD) countries is from public funding. However, this contrasts with some advanced economies such as Australia, the United Kingdom, and the United States in which the majority of funding is privately sourced.

The United Kingdom and the United States are instructive examples of an underlying trend that has emerged in certain advanced economies over the past two decades. In these countries higher education has expanded significantly, with a doubling of aggregate student numbers, while public funding per student has been halved in real terms. In the United Kingdom, current tertiary education expenditure per student is at a record low in historical terms, at approximately 70% below the OECD average. Consequently, in terms of overall public expenditure, the United Kingdom has one of the lowest levels of public funding for higher education as a percentage of GDP among OECD economies (Greenaway & Haynes, 2003). In recent years, global and regional financial crises have created further pressure on governments to curb expenditure, which has had an impact on public funding for higher education. According to the European University Association (2012), southern and eastern European economies – many of which already had lower overall public investment levels in higher education – have experienced significant cuts since 2008.

<sup>11</sup> Education is a public good in the sense that its consumption does not deplete its store and when it is shared, its benefits for the next user increase rather than decrease.

The decline in state funding for higher education has been matched by a corresponding rise in tuition, as universities have been forced to shift the burden to students. According to the National Center for Education Statistics (2013), the average total tuition cost for full-time undergraduate students in public and private institutions in the United States increased by 130% between 1980 and 2011. During the period from 2001 to 2011 alone, tuition at public institutions rose by 40%. In essence, such increases in university tuition reflect the magnitude of the fall in public funding.

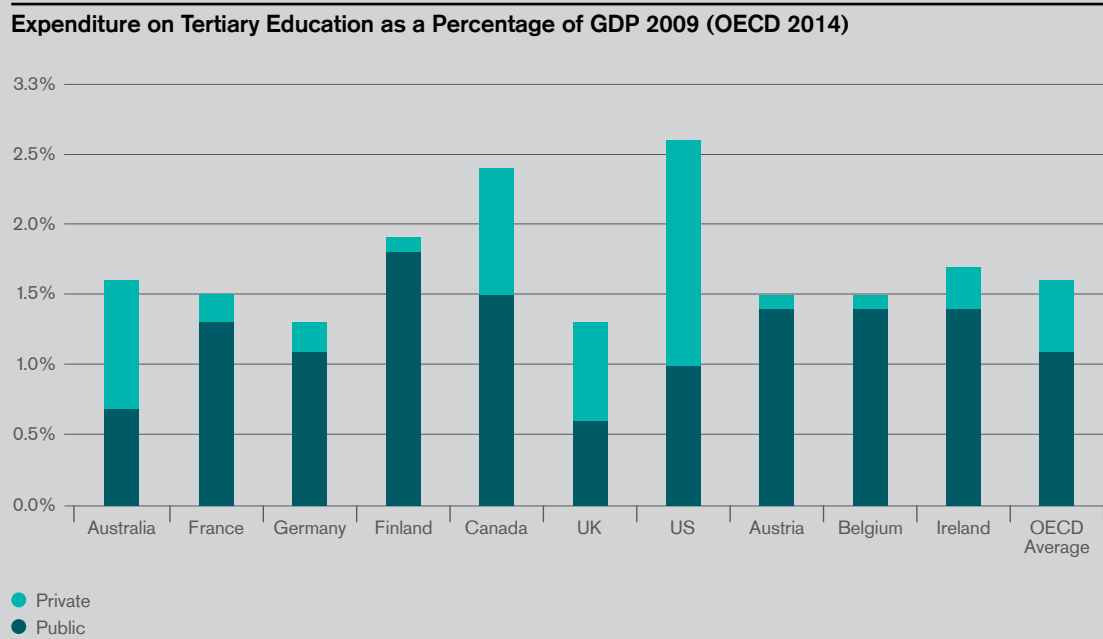
Moreover, the fall in public funding and rise in university tuition has created a market for financial aid for students seeking tertiary education. The entities that have emerged to address this need include independent foundations, scholarship funds, educational trusts, associations, societies, corporations, and other endowment organizations (Jalbout, 2014). Specific examples include the Winston Churchill Foundation of the United States; Teach for All; American Indian Graduate Center; National Medical Fellowships, Inc.; Adelante/Ford Motor Company Future Leaders Scholarship; L'Oreal USA for Women in Science Program; and the Deutsche Bank Accelerate Scholarship. Such entities vary significantly in terms of their structure, purpose, and operating practices. Some award scholarships directly to students, while others work through universities. Some offer a single scholarship or program while others award hundreds of scholarships from multiple programs. Moreover, whereas some funds rely on established endowments, others function through continuous collection of donations (Cunningham, Keselman, McSwain, & Merisotis, 2005).

In reviewing financial assistance programs, it is important to consider the sources of funds, criteria through which students are selected, structures of funding, objectives, and the goals of the mechanism. For the purpose of this report, scholarships are classified according to three providers: government; non-government (i.e., independent foundations, scholarship funds, educational trusts, associations, and societies); and other endowment organizations and corporations. As shown in Table 3, a range of funding programs exist which differ in terms of target group, objectives and their mechanisms for dispersal. It should be noted here that some of the private entities (including major companies and banks) carry prestige associated with their brand names. Therefore, offering scholarships – as well as student preferential financing/loan programs – that are named after these entities could help low-income students in terms of high-profiling their social capital.



Figure 4

# Expenditure on Tertiary Education as a Percentage of GDP 2009\*



\* (OECD 2014)

Table 3

---

# A Synthesis of Existing Financial Assistance Programs for Higher Education

---

---

## Providers

### Government Bodies

Examples of scholarships offered by government bodies include the Scholarship for Disadvantaged Students program in the United States, the Fulbright US Student Program, and the UK Commonwealth Scholarship.

### Non-governmental Organizations

Many scholarships are provided by non-governmental institutions. Examples include the United Negro College Fund, the Hispanic Organization for Public Employees, and the Winston Churchill Scholarship.

### Private Entities

Many private corporations offer scholarships of different types. Examples include the Generation Google Scholarship, Credit Suisse's Steps to Success Doug Paul Scholarship, and Deutsche Bank's Lord Dahrendorf Scholarship.

## Mechanisms

### Scholarships

Examples include the Churchill Scholarship, the US Fulbright US Students Program, and the Lord Dahrendorf Scholarship.

### Loans

Several scholarships are offered along with loans or partial loans. For instance, Norway's Quota Scholarship Scheme offers international students 30 percent of the funds required for higher education as a grant and 70 percent as a loan.

### Monetary Awards

Many programs award student grants in the form of small one-time monetary payments. For instance, the Hispanic Scholarship Fund awards students with amounts of 1,000–15,000 dollars.

Structures	Target Student Population	Objectives
<p><b>Full Tuition Degree programs</b> Examples include the Chinese Government Scholarship program and the UK Commonwealth Scholarships for Developing Commonwealth Countries.</p>	<p><b>Nationality</b> Scholarships may be targeted at national students such as the Scholarship for Disadvantaged Students program in the United States, or be targeted particularly at international students from developing countries, such as the L'Oréal-UNESCO For Women in Science program.</p>	<p><b>International Development</b> The stated objectives of many government scholarships for international students – such as the Commonwealth Shared Scholarships and the Fulbright Foreign Student Program – are to contribute to international development.</p>
<p><b>Internship Programs</b> Many scholarship programs also offer internship opportunities. For instance, Credit Suisse's Steps to Success Doug Paul Scholarship awards internships to minority students.</p>	<p><b>Ethnic Minority</b> Many scholarships are directed toward specific ethnicities. Examples include the United Negro College Fund, the Hispanic Organization for Public Employees, and the Asian &amp; Pacific Islander American Scholarship Fund.</p>	<p><b>Increasing Social Inclusion &amp; Social Mobility</b> Various non-governmental organizations and private corporations, such as National Medical Fellowships and Lloyds Banking Group's Lloyds Scholars, cite enhancing social inclusion and facilitating social mobility as their key goals.</p>
<p><b>Non-degree Academic Programs</b> Several scholarship models provide funding for non-degree studies. For example, the Hubert H. Humphrey Fellowship Program and the Netherlands Fellowship Programmes provide awards to students pursuing non-degree study.</p>	<p><b>Gender</b> Many scholarships are particularly dedicated to providing funds for women. Examples of organizations providing such scholarships include the Financial Women of San Francisco, American Medical Women's Association, and American Association of University Women.</p>	<p><b>Integrating Communities &amp; Increasing Participation</b> Several funds are dedicated specifically to providing scholarships for specific communities with the aim of increasing racial, ethnic, or gender diversity, such as the United Negro College Fund, American Indian College Fund, and the Hispanic Scholarship Fund.</p>
	<p><b>Disabilities</b> Scholarships available for disabled students include the Silver Cross Ability Achievement Scholarship, which grants awards to students who use manual wheelchairs, and the Google Lime Scholarship for Students with Disabilities.</p>	<p><b>Supporting Specific Disciplines</b> Various funds encourage students to pursue specific disciplines. Examples include the Hubert H. Humphrey Fellowship Program, Deutsche Bank's Accelerate Scholarship, and Goldman Sachs Scholarship for Excellence Program.</p>



## 3.2 The Impact Investment Opportunity

Among innovative financing models, one of the more promising to emerge recently is the use of impact investment to finance access to prestigious universities for underprivileged students. The general idea behind impact investment is to channel funds – not available otherwise – from private and institutional investors to finance specific social challenges while delivering a financial return. In broad terms, impact investments are investments made with the intention to generate measurable social and environmental impact alongside a financial return (Global Impact Investing Network, 2014). Accordingly, they target a range of returns from below-market to market rates. Some argue that there is a trade-off between financial return and impact while others see the two components as mutually reinforcing. Regardless, impact investment differs from private philanthropic capital in that it seeks a financial return, applying market forces and emphasizing financial discipline and sustainability principles (D. Capital Partners, 2013).

The global practice of impact investing has grown into a 60 billion dollar market since the inception of the term "impact investment" in 2007 (Martin, 2013). Yet, according to the Social Impact Investment Taskforce (2014), the impact investment market represents a huge untapped opportunity for mainstream investors. The Taskforce observes that while recent capital flows into developing countries are rising, the level of financial capital dedicated to impact investment continues to be marginal. Although this may be due to factors such as a lack of awareness rather than a lack of funds, it is feasible that impact investment models targeting higher returns may attract more investors and therefore create a large and scalable social impact over time. In this context, the potential prospects for investments that earn competitive financial returns – but which are also associated with a greater social impact in specific areas of education – are considerable.

Few education-specific impact investment models exist in developing countries. Most often, grants are dedicated to primary – and in some cases secondary – education institutions, with the aim of achieving modest quality standards.<sup>12</sup> Meanwhile, there remains a significant gap in finance to access high social-capital (i.e., prestigious) institutions for higher education. As discussed in the first chapter, the employability and earnings of graduates of prestigious universities is usually high, implying that financial returns from investing in such students ought to be both assured and competitive. Moreover, as talented students from low-income backgrounds otherwise have very little access to such institutions – due to high tuition fees and other previously discussed barriers such as legacy admissions – investing in such students could play a significant role in spurring their social mobility, thereby addressing social inequality.

J. Freireich and K. Fulton (2009) of the Monitor Institute classify impact investors in this emerging industry into two categories based on their primary objective: impact-first investors and finance-first investors. This classification is important because motives ultimately determine the types of investments that may have appeal. Figure 5 illustrates how the array of investments ranges from purely socially motivated through to entirely financially motivated.

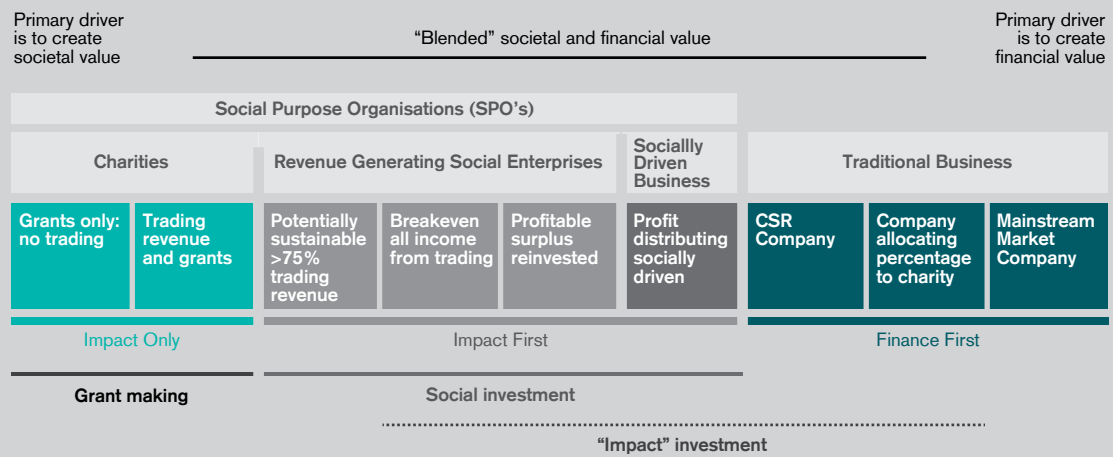
The impact investment model has been used in various areas to target improvement in specific areas of social need, including affordable housing, microfinance, agricultural development, clean energy, and water. Given the limited amount of philanthropic money available to support access to tertiary education for students from underprivileged backgrounds, impact investment is an important means of filling the growing gap. Furthermore, the impact investment focus on sustainability and measurability of performance outcomes has the potential to drive improvements in teaching quality and outcomes, as well as improving overall system effectiveness.

12 Here, it is worth noting that the second goal of the Millennium Development Goals (MDGs) is to achieve universal primary education; that is, to ensure that by 2015 all children everywhere will be able to complete a full course of primary education (United Nations, 2015).

Figure 5

# The Investment Spectrum

## The Investment Spectrum



\* (European Venture Philanthropy Association 2011)

“ **Impact investment** is a potentially effective tool **to finance** access for **low-income students** to **best-in-class** universities.



Several banks in the United States and Europe have recently launched impact investment products for clients interested in financial as well as social or environmental returns. Presently, there are several sources of impact capital and different channels through which this can be directed. Although grants and charity bonds have also been used as a catalyst for developing impact investments, it would appear that secured loans, unsecured lending, and equity are the most appropriate and scalable forms of financing.

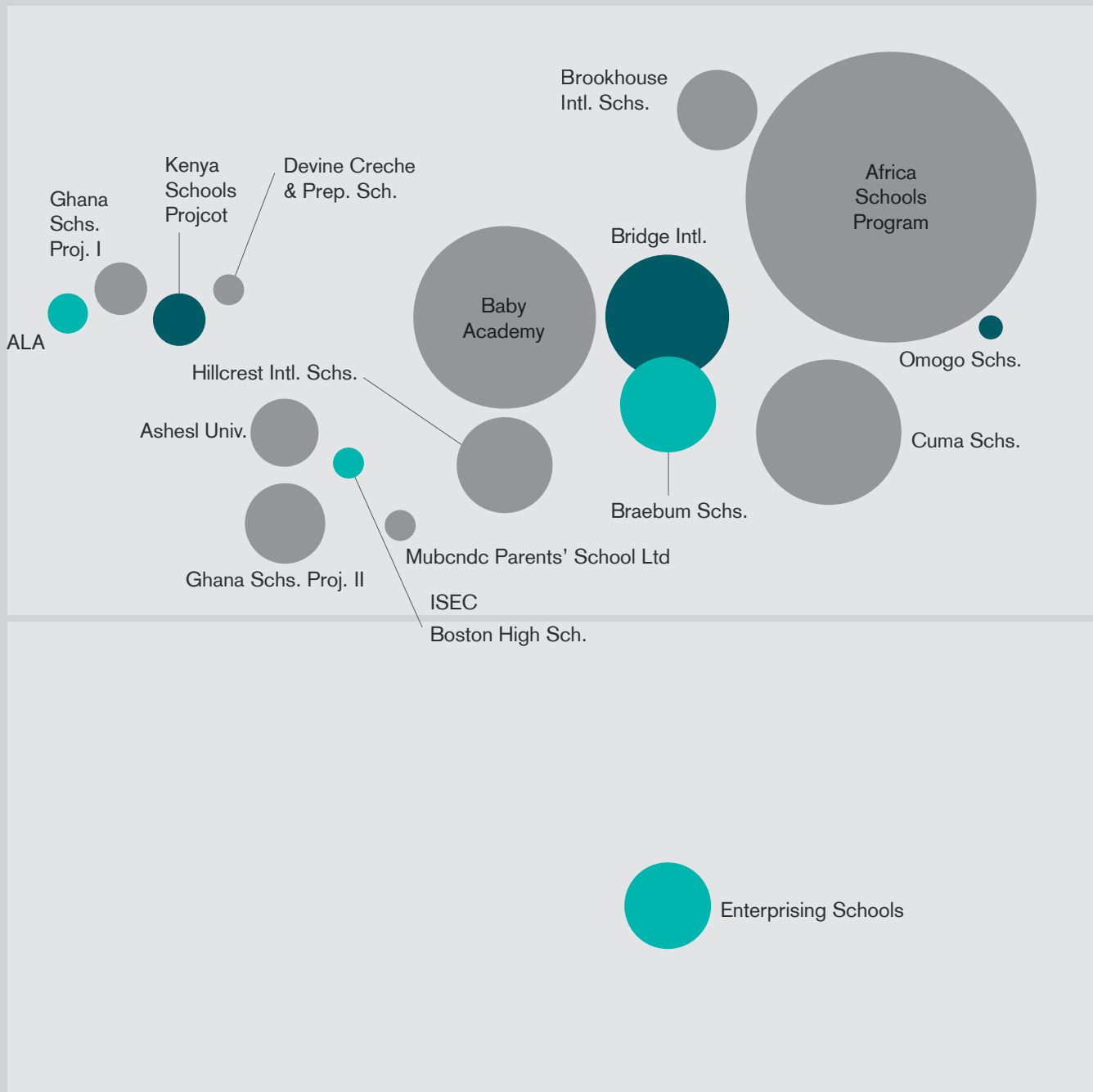
A recent working paper by D. Capital Partners (2013) suggests that although impact investment has advanced many areas of social need, it remains nascent in the education sector. This has been largely attributed to difficulties in privatizing short-term gains from what is essentially a public good with benefits that are realized over the long run. As shown in Figure 5, the bulk of the impact investment funds for education appear to have been directed to financing the building and upgrading of school infrastructure. In essence, this is where the results of progress can be measured most easily. This contrasts sharply with funding aimed at improving the education ecosystem, where the potential for return on capital investment is not as clear, making it instead a better candidate for grant donations.

When it comes to investing in human capital, supporting students to pursue a quality education, there are various channels (see Box 1).

Figure 6

# Examples of Impact Investment in Education

## Infrastructure

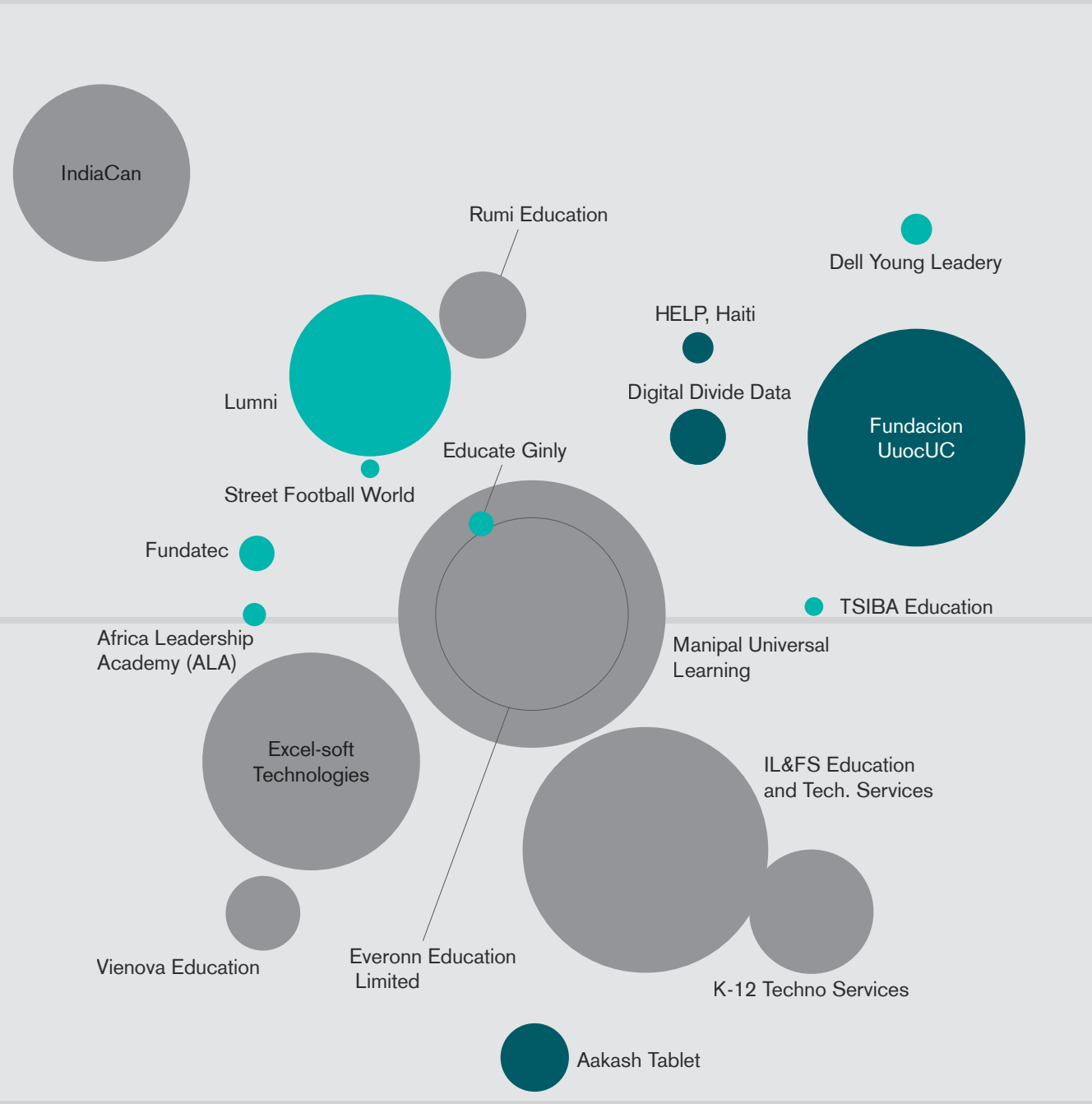


## Ecosystem

- Catalyze
- Experiment
- Scale
- Bubble size = ~\$2M deal size

\* (D. Capital Partners 2013)

People



Tools/Services

## Box 1

---

# Impact Investment Channels to Fund Students

---

There are two primary channels through which impact investors make their investments to underwrite the education of students. Depending on both the amount of capital and the investor's appetite for risk, an impact investor can either invest directly in educational beneficiaries or indirectly through crowdfunding platforms or intermediaries that work with education providers. In this respect, it is worth noting that the roles of both online crowdfunding platforms and financial intermediaries in channeling funds are gaining momentum around the world.

However, the involvement of financial intermediaries – such as banks – allows investors to choose safe investments based on financial return and social impact, while allowing the intermediaries to be responsible for due diligence on prospective students.

Sources: Mulgan et al. 2010; Simon and Barneier 2010; WEF 2013, 2014 a

Box 2

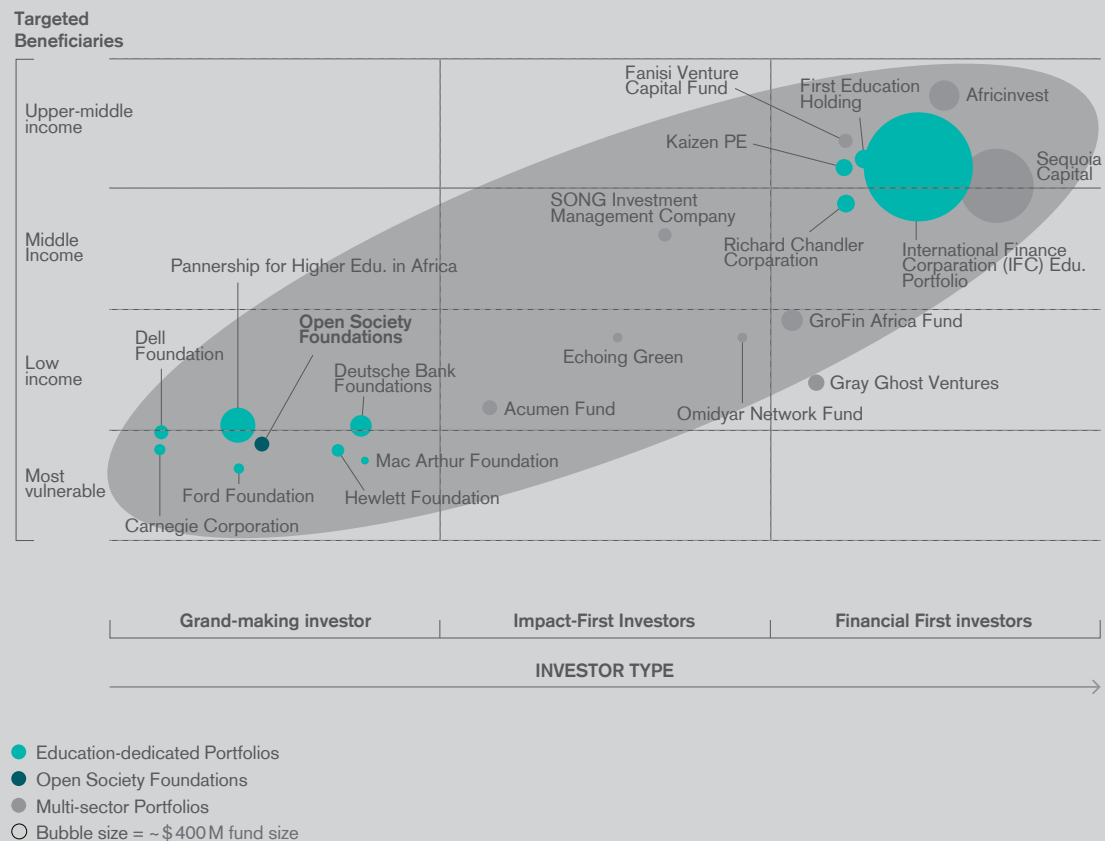
# The Landscape of Education Impact Investors

Education impact investors could be classified as either impact-first or finance-first investors. Whereas impact-first investors tend to target extremely poor beneficiaries with minimal (if any) expectation of financial return, finance-first investors target corporate and upper-class customers who have the means to repay the investment together with a dividend. A specific example of the former is the Acumen Fund, whereas the latter include Africinvest, First Education Holdings, and Fanisi.

There are also some private donors and investors (such as the MacArthur and Rockefeller Foundations), which are non-profit charity-based organizations that either donate or provide so-called patient capital for humanitarian schooling projects.

Source: D. Capital Partners 2013

## Private Donors & Investors in Education





## 3.3 The Need for Novel Financing Models

Looking particularly at the higher education sector there are already a number of interesting models, which are described below. An example of an innovative impact investment is that by web-based microlender KIVA in a partnership with Nairobi's Strathmore University. Through this initiative, Kenyan students from low-income backgrounds who have high academic scores can take out low-interest loans which give them access to higher education. The types of loans offered may cover tuition and equipment such as laptop computers. Since the start of the program in January 2012, over 500,000 dollars has been received for some 65 loans, most of which were full-tuition loans (Strathmore University, 2012).

Another active player in Kenya is the Equity Group Foundation, which administers the Equity African Leaders Program (EALP). This is an internship and leadership development program that targets top performing students, providing financial assistance to cover their university costs. Since its establishment in 1998, EALP has benefited more than 1,500 scholars and sponsored around 200 talented Kenyans to study abroad at some of the world's top universities (Equity Group Foundation, 2014).

The African Leadership Academy (ALA) was established in South Africa with the aim of identifying and developing the next generation of African leaders. Officially opened in September 2008, the ALA targets students aged 15–18 years old who are enrolled in a two-year curriculum with a special focus on leadership and African studies. Many of ALA's graduate students have subsequently been placed into global prestigious universities (African Leadership Academy, 2015).

Prodigy Finance has a tertiary-education impact investment model that closely resembles traditional financing. Their lending model offers loans to international postgraduate students accepted to top post-graduate schools, most of whom come from developing countries and could not attend without such a loan. An applicant's loan affordability is strictly assessed according to the student's estimated future earning potential.<sup>13</sup>

<sup>13</sup> Please read more about the Prodigy story at [https://prodigyfinance.com/about\\_us](https://prodigyfinance.com/about_us)

These loans are then packaged into international bonds, which are issued on the capital markets, in which investors place capital and which provide a competitive financial return along with a clear social impact. Together with Credit Suisse, Prodigy has also set up an innovative impact investment model, investing over 80 million dollars in multiple Prodigy bonds to provide access to mainstream investors, diversifying risk while bringing liquidity to investors. The model allows more than 1,500 talented students from more than 70 nationalities to access best-in-class higher education across the globe.

Brazil's Ideal Invest is a non-banking financial institution with an asset-backed securities fund that the company has structured to carry the loans to maturity. It has distributed more than 40,000 loans since 2006 and almost two-thirds of these loans are offered to students who come from families earning less than 1,500 dollars a month (International Finance Corporation, 2012). Their interest rates, partially subsidized by partner universities, combined with reasonable default rates deliver healthy returns to investors and have allowed the company to expand to more than 200 universities (Abdo, Bjarnason, & Assomull, 2014).

While most impact investment models in the higher education sector require the applicant to repay the loan amount plus interest, Lumni has an impact investment model with an innovative way of providing returns to investors. After evaluating the earnings potential of individual students, financing is offered subject to the student entering into an agreement to pay a set percentage of their income for a set period of time after graduation. Besides providing funds to pay for college, Lumni offers coaching and job placement services to its students. While this enhances the social impact, it also reduces the investment risk, as students will have more opportunities to find a long-term job upon graduation. To date, Lumni has funded and coached over 3,000 students across the Americas, including the United States, Mexico, Colombia, Peru, and Chile (Lumni, 2014).

At present, impact investing accounts for a very small share of overall global education funding. Out of the approximately 2.5 trillion dollars spent annually on education, around 2 trillion dollars is public funding and 500 billion dollars is traditional private funding. Private impact investment is estimated to amount to



approximately 3 billion dollars or 0.12% of the overall amount spent on education. The small footprint of impact investment reflects the newness of its arrival in the education sector (D. Capital Partners, 2013). While Rangan, Appleby, & Moon, (2012) posit that impact investment is neither a panacea nor a replacement for philanthropy or public funds, they argue that there is significant room for its further expansion within the area of higher education.

Millions of students may benefit from such a scheme considering that total global tertiary enrollment reached around 170 million students in 2009 (British Council, 2012). While we expect the majority of students to go to ordinary universities and institutes of higher education, US figures suggest that about 9% of students attend top universities (O'Shaughnessy, 2011). Globally, according to the above-mentioned 2012 report, the fastest growing countries in terms of demand for tertiary education in the next decade, in millions of students, are India (7.1), China (5.1), Brazil (2.6), Indonesia (2.3), Nigeria (1.4), Philippines (0.7), Bangladesh (0.7), Turkey (0.7), and Ethiopia (0.6). While not all the countries on this list are technically classified as low-income countries, large proportions of their populations are in fact low income.

New financing innovations can be developed to offer investors more opportunities to invest for impact in the higher education sector. Consider an example of an investment made for environmental impact. So-called green bonds are normal, tradable bonds issued by multilaterals (such as the World Bank) or multinational corporations to fund specific projects with an environmental impact. While these projects may bear a certain risk, green bonds typically get a strong rating (A to AAA) because their repayments are not based on the cash flows of the environmental projects, but are directly covered by the treasury department of the well-rated multilateral or multinational issuer. The same model could be replicated by multilaterals or corporations committed to the higher education sector, which could issue "higher education bonds" to fund projects allowing low-income students to access best-in-class higher education.

Another innovative model is the use of social impact bonds specifically dedicated to higher education. Social impact bonds have been issued for other types of projects to channel private

funding into social programs, with the government paying interest that rises or falls according to the measured success or failure of the social program. The first social impact bond was launched in 2010, aiming to finance the rehabilitation of and early intervention programs for ex-convicts. If the social program meets its goal of steering the target group away from crime, interest rates on the bonds will rise. As such, the investor bears the upside and downside risk of the effectiveness of the program, while the government saves money on policing, processing, and jailing offenders. Similar models could be applied to programs in the higher education sector. For instance, if the higher education program meets its goal of graduating a pre-determined number of low-income students who become gainfully employed after graduation, interest rates on the bonds would rise since the government would save money on higher education programs and unemployment support. For the social impact bond, a set of specific metrics must be defined to measure the success of the higher education program.

Another possible model of impact investment funding is the creation of bank-affiliated branding loan programs. Some of the major banks enjoy strong local, regional, or global prestige forged by many years of trusted relationships with their communities and their clients. Such banks could leverage their strong brands to bestow their prestige on competitive loan programs earmarked for students from low-income communities. In addition, investors and financial institutions that enjoy strong social positions in their respective countries may use their clout and financial muscle to work together with some of the world's top universities to develop loan programs that target low-income students. The beneficiaries of these loan programs would automatically enjoy a boost of clout given the prestige of the financial institution that stands behind them. The schemes can also be designed in a way that mentoring and sponsorship are used to increase the saviness and social capital of the students. That way, students are given access to the prestigious social and business networks to which the financial institutions belong. Notwithstanding these potential investment models, it is foreseeable that some investors may be unfamiliar with investing in what has traditionally been a publicly funded good whose social benefits are realized over the long run. In this respect, governments concerned with improving the employment prospects and living standards of particular disadvantaged communities can

play a catalyzing role by incentivizing private impact investments that help low-income students gain entry into prestigious universities; for example, by offering partial tax credits or underwriting a component of total risk. Additionally, developing innovative public-private-partnership (PPP) funding models is a promising possibility worth exploring.

For instance, in order to enable students from low-income countries to cover tuition fees, while encouraging them to return to their home countries once they have completed their studies, they could be offered loans with moderate interest rates that increase in line with the time they remain abroad after graduation. Students who return after a year or two would pay nominal rates, whereas those who remain outside of their home country for prolonged periods could face much higher rates. Furthermore, the Singaporean experience provides an instructive example for tackling the issue of brain drain. The government of Singapore provides financial support to bright students who get admitted to top-tier universities. After graduation, the students are obliged to work for the government until they pay off their debt, or it can be paid by the student or an employer.

Higher education institutions also have a vital role to play in raising awareness of student loans. Perhaps unsurprisingly, in markets where student lending is relatively unknown, the first port of call for lenders to reach prospective borrowers is their college or university. For this reason, in successful models lenders should cultivate close working relationships with tertiary institution partners, developing a presence at university campuses and on university websites to enable students to apply for loans while enrolling in their degree programs. Universities can be incentivized to support student-lending companies, by offering discounts on tuition or subsidized interest rates, because this will allow them to fill marginal seats that would otherwise remain empty (Abdo et al., 2014). The metrics for measurement of the effects and effectiveness of such education impact investments are discussed in the next chapter.



# **4 Metrics for Evaluating Impact Invest- ments in Higher Education**

“ **Among the practical challenges faced** – particularly for impact evaluations – is that **some key outcomes** are intangible and inherently **difficult to quantify.**

## Challenges

As with all forms of evaluation, difficulty in measurement increases as we move further down the pathway from short-term, through to mid-term and on to long-term outcomes and impacts. The number of extraneous factors that may shape what is achieved by a student, but which remain unknown and therefore not measurable, increase with time. This introduces a degree of measurement error that makes long-term outcomes more difficult to attribute solely to a specific investment input.

Among the practical challenges faced – particularly for impact evaluations – is that some key outcomes are intangible and inherently difficult to quantify. For example, among the key reasons why attendance at a prestigious university is so highly prized is that it offers unparalleled opportunity for an aspiring student to be surrounded by peers who will likely go on to form highly influential elite networks. Accordingly, it is worth evaluating the extent to which graduates of prestigious universities access, grow, and capitalize on links made with such networks in future. While the informal nature of many elite circles makes measurement of intangibles such as social capital, relationship quality or exploitation difficult to quantify directly, it is arguably possible to analyze success on this dimension using highly correlated proxy measures.<sup>14</sup> For instance, where membership of a relevant elite network is published, we can count the number of graduates from disadvantaged backgrounds who are formally listed as a proxy indicator for their access to, participation in and use of networks of influence.

By way of a specific example, acceptance as a member in the World Economic Forum's Network of Global Agenda Councils (GAC) can be used as a proxy for increased personal influence at a global level, given the nature of what this highly elite international network does. It is interesting to note that a review of the GAC member directory for the year 2014 reveals that low-income countries – which make up 12.35% of the world's population – are represented by less than 2.5% of GAC members. This imbalance in representation is consistent with other previously reported evidence that international elite networks are disproportionately composed of persons from affluent family backgrounds and/or wealthier advanced economies.

<sup>14</sup> Proxy measures can be assessed in place of an unobservable or otherwise intangible variable of interest if they are closely correlated.

Interestingly, however, all of the GAC members from low-income countries attended a top-tier foreign university, which supports our premise that prestigious universities are a key point of access to elite circles of influence. The informative nature of this analysis demonstrates the need for careful consideration in evaluation planning to ensure that reliable and valid variables, including proxy measures, are sought to account for the key outcomes of interest.

An overall measurement challenge in planning impact evaluations is that they necessarily require robust designs and metrics. As stated in a study by Creed, Perraton, and Waage (2012), this is a complex endeavor because a counterfactual case is often difficult to establish. For example, what would the likely alternative career path have been if a student from a developing country had not received an impact investment for tuition at a prestigious university? The Rhodes Scholars<sup>15</sup> program is such a case in point. While many of its recipients have subsequently gone on to become heads of state, such as Bill Clinton, John Turner, Bob Hawke, and most recently Tony Abbott, the Rhodes Trust provides a distinguished list of high-profile individuals who applied for a scholarships but were turned down (Ziegler, 2008).

A further practical challenge in conducting impact evaluation lies in constructing a meaningful comparison group; that is, finding a matched group of students from comparable low-income backgrounds who did not enroll in prestigious universities, yet who closely resemble the students who did. There are different methods of creating a comparison group and each comes with its own assumptions and limitations. Depending on what data is available, randomized evaluations are the most rigorous form of impact evaluations, being least prone to non-random sources of bias. While quantitative impact evaluations offer a high degree of statistical certainty, an evaluation design may be supplemented with qualitative data in order to avoid oversimplified exercises that produce spurious numbers; that is, to ensure that the conclusions drawn are meaningful to the stakeholders involved.

With regard to the frequency of impact measurement, a range of evaluation timeframes are employed by investors. A survey by J.P. Morgan of over 2,200 impact investment transactions reveals that most are conducted either annually or quarterly. As shown in Figure 7, this corresponds neatly with the timing schedule used for impact measurement in purely financial evaluations.

15 The Rhodes Scholarships are postgraduate awards supporting exceptional students in studies at the University of Oxford. Established in 1902, it is considered one of the world's oldest and most prestigious scholarships with over 7,000 recipients from 14 specific geographic constituencies, namely Australia, Bermuda, Canada, Germany, Hong Kong, India, Jamaica and Commonwealth Caribbean, Kenya, New Zealand, Pakistan, South Africa, the United States, Zambia, and Zimbabwe (The Rhodes House, 2015).



Figure 7

---

# Reported Frequency of Impact Measurement and Financial Evaluation

---

---

Frequency of Impact Measurement



- Quarterly 29%
- Semi-annually 19%
- Annually 44%
- Monthly 8%

---

Frequency of Financial Evaluation



- Quarterly 30%
- Semi-annually 22%
- Annually 33%
- Monthly 15%

\* (J.P. Morgan 2011)

“ **Measurement of social impact often requires a longer-term commitment, which does not align with the time horizon of traditional investments.**

To some extent, this finding suggests that many evaluations may be overlooking the fact that measurement of social impact often requires a longer-term commitment, which does not align with the time horizon of traditional investments. To that end, intermediaries have an important role to play in helping to promote the importance of meaningful long-term measurement as well as common practice around social metrics and standards (World Economic Forum, 2013).

Last, but certainly not least, there is no such thing as one-size-fits-all when it comes to evaluating impact investments in tertiary education, because each case may differ according to background factors of the student and facts about the university they attend. Moreover, impact investment is currently at a nascent stage in financing tertiary education. For such an emerging tool to become a mainstream asset class for financing education, there is a need to develop simple, investable and scalable cash flow mechanisms that have measurable impact (Huwlyer, Kaeppli, Serafimova, Swanson, & Tobin, 2014). To that end, it is important that the judgments about the outcomes and merits of such investments are based on more than financial returns, seeking to capture the whole picture as described in this chapter. The double-bottom-line paradigm represents a useful way to conceptualize performance assessment in this respect. Here, adding other measures of social impact extends traditional financial bottom-line thinking.



## 4.2 Proposed Metrics

Impact investments in higher education can facilitate life-changing improvement for students from very disadvantaged backgrounds. The outcomes can be very personal and qualitative, such as a sense of personal fulfillment, or normative and quantitative, as in achieving a standard of living that is significantly above the population average. Perhaps the most basic short-term outcome measure of success in financing a student from a low-income background to attend a best-in-class university is whether or not they graduate. While undoubtedly a significant achievement for the individual involved, this represents only a small fraction of the private and public goods that may result from this event.

Accordingly, an outcome evaluation<sup>16</sup> of the efficacy of such an impact investment requires metrics that capture gains made not only in terms of graduation, but also measure employability, earning potential, standard of living, scope of influence and civic participation. While the alumni tracer studies frequently used to evaluate the outcomes of scholarship programs have scope to capture this type of information (Jose, 2014; Listyarini, Ratnaningsih, & Yuliana, 2010; Schomburg, 2003), impact investments are also likely to have other effects on the regions and home countries of graduates. For instance, the broader spillover effects in developing countries that may be observed as the numbers of such graduates and their influence grows potentially include increases in foreign investment inflows, international business activity, national living standards and various other indicators of a socially cohesive society.

<sup>16</sup> Outcome evaluations compare changes in qualitative or quantitative variables of interest following an intervention. These changes can be short- (e.g., number of graduates), medium- (e.g., number of graduates who gain employment) or long-term (e.g., increases in foreign direct investment, or FDI, inflows to a country). They may reveal important correlations but do not permit robust conclusions to be drawn about the causality of such relationships.

While it is sufficient for some investors to know that their investment is associated with gains in key outcome areas, others may require more dedicated impact evaluations.<sup>17</sup> Such evaluations would gather evidence that allows robust conclusions about the causal impact of the investment and, if necessary, estimates the magnitude of its effect.

It is important to note that many of the abovementioned private and public goods are often only assessable in the medium and longer term, after students have graduated and made use of what they have acquired from the education experience funded by an impact investment. Figure 8 chronologically organizes examples of indicators of success, along a short-, medium- and long-term time horizon for when they may feasibly be evaluated.

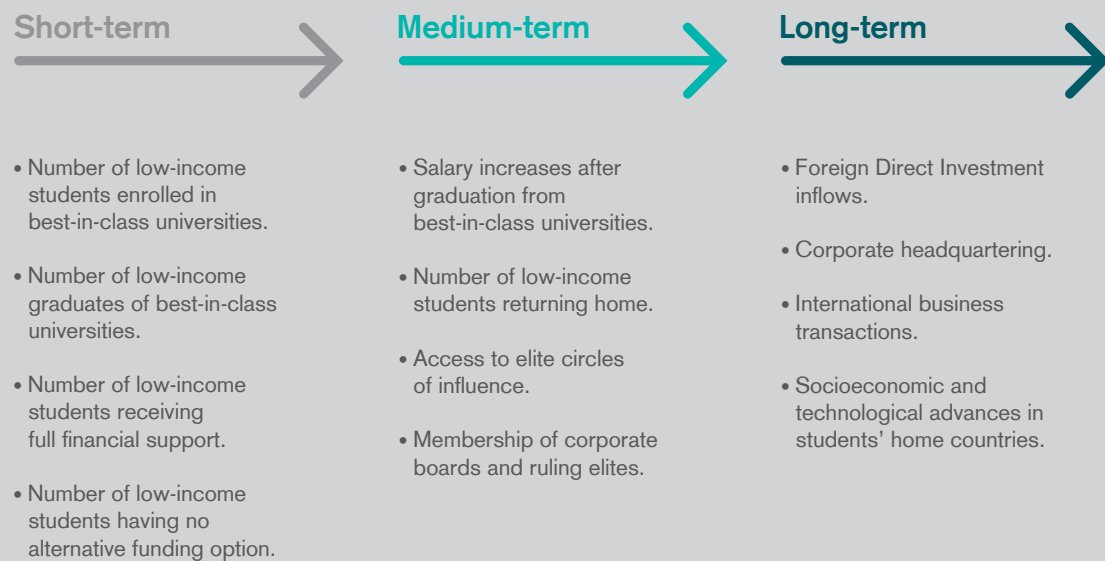
17 Impact evaluations answer the cause-and-effect question and use robust counterfactual analysis to discern changes in outcomes that are attributable to the impact investment itself. This involves a comparison between what actually happened and what would have happened in the absence of an impact investment. Impact evaluation is concerned with quantitative rather than qualitative outcomes.

Figure 8

---

# Impact Metrics for an Investment Giving Low-income Students Access to Best-in-Class Higher Education

---







# **5 Conclusion**



According to Credit Suisse's Global Wealth 2014 Report, global wealth has reached an all-time high of 263 trillion dollars. With nearly half of this in the hands of just 1% of the world's population, it comes as no surprise that income inequality is among the most prominent of topics on the international development agenda. In this respect, high-quality tertiary education is widely recognized as a vehicle for upward mobility because of its potential to enhance the employability and living standards of individuals, together with the economic and social development of disadvantaged communities. However, the gap in affordability of high-quality tertiary education for the majority of the world's population is often insurmountably large. The situation is even more pronounced when it comes to top-tier universities where students from low-income countries are severely underrepresented.

While research regarding the problem of inequitable access to high-quality universities for students from low-income countries is scant, there is growing recognition that attendance at prestigious universities offers not only quality education, but also unparalleled opportunities for gaining access to globally influential networks that could be especially beneficial to such students and their home countries. Indeed, this inaccessibility of elite global networks of influence contributes to the ongoing marginalization of countries that are already among the most socially, politically and economically excluded on the world scene. For all these reasons, talented students from disadvantaged backgrounds, particularly those from low-income countries, need new mechanisms to finance entry into such institutions.



A 2014 book from the World Economic Forum, entitled *Education and skills 2.0: New targets and innovative approaches*, has highlighted the urgent need for more equitable access to quality education. However, efforts to achieve this often entail the shifting of resources from one group in need to another, thereby spawning new socioeconomic imbalances that complicate and exacerbate injustice in an increasingly winner-take-all society. This is why private sector impact investment may stand to play such an important role in complementing the impact of existing, but declining, government funding. It will bring new and much needed resources that help offset the currently shrinking pool of finance for higher education, but without undermining support for other groups that benefit from not-for-profit funding. Moreover, because current efforts to expand access to high-quality education in poorer countries have been focused more at primary and secondary – rather than tertiary – education, this will help address the dire situation for talented students in such places seeking high-quality tertiary education.

With a decline in public funding for education in many countries, recently exacerbated by global financial crises, universities across the globe have shifted the cost burden to students through higher tuition fees. Impact investment thus emerges as a most appropriate instrument of change to help offset this global decline in expenditure on tertiary education, which has disproportionately impacted the poorest and most disadvantaged.

Impact investing is an emerging instrument that is gaining popularity around the world. It is anticipated that, as time progresses, many of the challenges with regard to implementing and evaluating impact investment models will become less constricting. This report contributes to this growing development by highlighting – and making recommendations to remedy – the fact that modest attention has been given to the financing of higher education, let alone attendance at best-in-class institutions. More efforts are still needed to both showcase success factors and relay best practices in other impact investment areas until higher-education impact investing becomes an integral part of investors' portfolios.

# Appendix

## Financial Support Offered to Foreign Students by 20 Prestigious Universities, December 2014

University	Type of Financial Aid
Australian National University	Although the university claims to be committed to enabling all students regardless of their background, the vast majority of financial assistance offered is available for Australian and New Zealand citizens (as well as Australian permanent residents) only.
California Institute of Technology	Need-based financial aid packages are available for international applicants but they need to undergo a rigorous process and abide by a strict deadline. Additionally, students who are denied aid for the first year at Caltech will not be eligible to apply in subsequent years. An exception is made for US citizens, as well as permanent residents of Canada and Mexico.
Columbia University	There is no official income cutoff for financial aid eligibility. Eligibility for need-based aid is determined on a case-by-case basis according to the family's income, size and number of family members attending college.
Grandes Ecoles	No need-based aid is offered at the moment. The French Ministry of Foreign and European Affairs launched the Eiffel Excellence Scholarship Programme in 1999 with the aim of attracting top foreign students to enroll in their master's and doctorate degree programs.
Harvard University	All financial aid is need-based. There are no merit, athletic, talent or ethnic-based scholarships. As part of the Harvard Financial Aid Initiative that the university created back in 2004, students from the lowest income backgrounds would not be expected to contribute to their education. For families making 65,000 dollars or less each year, there is no expected family contribution (but a requirement of a small student contribution). For students coming from families that make 65,000 to 150,000 dollars, families are asked to contribute anywhere from 1% up to 10% of their annual income to the cost of education.
Massachusetts Institute of Technology (MIT)	Regardless of their nationalities, 72% of the students receive either need-based or merit-based scholarships – totaling more than 106 million dollars annually from different sources (institutional, federal, state or private).
McGill University	Since Canadian immigration policy requires all international students to show that they have adequate resources before being admitted, some financial assistance – in the form of modest loans and scholarships – is available if the student's circumstances have changed since his/her arrival.
Princeton University	Princeton University meets the financial needs of all admitted undergraduates, regardless of nationality.

Seoul National University	Every year, the Korean Government Scholarship Program offers around 20–40 scholarships for international students who are enrolled in a 4-year undergraduate program at this university.
Stanford University	All financial aid is need-based. There are no merit, athletic, talent or ethnic-based scholarships.
Swiss Federal Institute of Technology Zurich (ETH Zurich)	ETH Zurich does not offer any country-specific scholarship programs. Its Excellence Scholarship & Opportunity Programme is a merit-based award and is open to students of all nationalities.
University of California, Berkeley	International students are not eligible for university, state, or federal financial aid. Only students who are US citizens or eligible non-citizens are eligible for financial aid.
University of Cambridge	The financial support available for international undergraduate students is limited. Few full scholarships are available at the undergraduate level; most support is a partial contribution to the overall costs and is means tested. Therefore, the university recommends that students should investigate whether their home country offers any form of funding for students studying abroad.
University of Chicago	While financial support is limited for all students at the moment, student loans are available.
University of Hong Kong	Merit-based entry scholarships are available for students depending on the donations available from various foundations and donors. Like most countries, the government does not provide financial aid to international students. The university encourages students to undertake part-time work on campus during the academic year and to work during their summer vacation in the city.
University of Oxford	Students from outside the European Union (EU) pay a higher rate of tuition fees than UK and EU students, and are also subject to an additional fee. At present, there is no living-costs support from the university or the government for international students.
University of Pennsylvania	All dependent undergraduate students eligible for financial aid receive loan-free aid packages, regardless of family income level.
University of Sao Paulo	No financial support is available at the moment for international students unless their respective countries have an academic assistance agreement with the Brazilian government.
University of Tokyo	The University of Tokyo Fellowship is a merit-based scholarship that was established in 2004. For the October term 2013, a total of 16 postgraduate students were selected as recipients.
Yale University	Yale University meets the financial needs of all undergraduates admitted, regardless of nationality. International students are evaluated using a needs analysis that takes into account the relative differences between the US economy and the economy of students' home countries.

# References

- Abdo, M., Bjarnason, S., & Assomull, A. (2014, May 30). Student finance: a new frontier for impact investing? *Stanford Social Innovation Review*. Retrieved from [http://www.ssiireview.org/blog/entry/student\\_finance\\_a\\_new\\_frontier\\_for\\_impact\\_investing](http://www.ssiireview.org/blog/entry/student_finance_a_new_frontier_for_impact_investing)
- African Leadership Academy. (2015). *Our impact*. Roodepoort, South Africa: African Leadership Academy. Retrieved from <http://www.africanleadershipacademy.org/>
- Altbach, P., & Knight, J. (2007). The internationalization of higher education: Motivations and rationales. *Journal of Studies in International Education*, 11(3), 290-305. doi:10.1177/1028315307303542
- Barr, N. (1993). *The economics of the welfare state*. Stanford, CA: Stanford University Press.
- Baum, S., Ma, J., & Payea, K. (2013). *Education pays 2013: The benefits of higher education for individuals and society*. New York: The College Board. Retrieved from <http://trends.collegeboard.org/sites/default/files/education-pays-2013-full-report-022714.pdf>
- Behrman, J. R., Rosenzweig, M. R., & Taubman, P. (1996). College choice and wages: Estimates using data on female twins. *The Review of Economics and Statistics*, 78(4), 672-685. doi:10.2307/2109954
- Betts, J., Ferrall, C., & Finnie, R. (2013). The role of university characteristics in determining post-graduation outcomes: Panel evidence from three Canadian cohorts. *Canadian Public Policy*, 39, S81-S106. <http://dx.doi.org/10.3138/CP.39.Supplement1.S81>
- Boliver, V. (2013). How fair is access to more prestigious UK universities? *The British Journal of Sociology*, 64(2), 344-364. doi:10.1111/1468-4446.12021
- Bourdieu, P. (1996). *The state mobility: Elite schools in the field of power*. Stanford, CA: Stanford University Press.
- Brewer, D. J., & Ehrenberg, R. G. (1996). Does it pay to attend an elite private college? Evidence from the senior high school class of 1980. *Research in Labor Economics*, 15, 239-271.
- Brewer, D. J., Eide, E. R., & Ehrenberg, R. G. (1999). Does it pay to attend an elite private college? Cross-cohort evidence on the effects of college type on earnings. *The Journal of Human Resources*, 34(1), 104-123. doi:10.2307/146304
- British Council. (2012). *The shape of things to come: Higher education global trends and emerging opportunities to 2020*. Manchester, UK: British Council.
- Cameron, S., & Heckman, J. (2001). The dynamics of educational attainment for black, Hispanic, and white males. *Journal of Political Economy*, 109(3), 455-499.
- Carnevale, A. P., & Strohl, J. (2010). How increasing college access is increasing inequality, and what to do about it. In R. D. Kahlenberg (Ed.), *Rewarding strivers: Helping low-income students succeed in college* (pp. 71-190). New York: Century Foundation Press. Retrieved from <http://www.tcf.org/assets/downloads/tcf-CarnevaleStrivers.pdf>
- Carnevale, A., & Strohl, J. (2013). *Separate & unequal: How higher education reinforces the intergenerational reproduction of white racial privilege*. Washington, DC: Georgetown University, Center on Education and the Workforce. Retrieved from [https://cew.georgetown.edu/wp-content/uploads/2014/11/SeparateUnequal.FR\\_.pdf](https://cew.georgetown.edu/wp-content/uploads/2014/11/SeparateUnequal.FR_.pdf)
- Chowdry, H., Crawford, C., Dearden, L., Goodman, A., & Vignoles, A. (2013).



Widening participation in higher education: Analysis using linked administrative data. *Journal of the Royal Statistical Society: Series A*, 176(2), 431-457. doi:10.1111/j.1467-985X.2012.01043.x

Credit Suisse and the Schwab Foundation for Social Entrepreneurship. (2012). *Investing for impact: How social entrepreneurship is redefining the meaning of return*. Zurich: Credit Suisse Research Institute.

Creed, C., Perraton, H., & Waage, J. (2012). Examining development evaluation in higher education interventions: a preliminary study. London: London International Development Centre. Retrieved from [http://www.lidc.org.uk/\\_assets/LIDC%20Higher%20Education%20study%20final.pdf](http://www.lidc.org.uk/_assets/LIDC%20Higher%20Education%20study%20final.pdf)

Cunha, F., Heckman, J. J., Lochner, L., & Masterov, D. V. (2006). Interpreting the evidence on life cycle skill formation. In E. A. Hanushek, & F. Welch (Eds.), *Handbook of the Economics of Education* (pp. 698-812). Amsterdam: Holland North.

Cunningham, A. F., Keselman, Y., McSwain, C., & Merisotis, J. P. (2005). *Private scholarships count: Access to higher education and the critical role of the private sector*. Washington, DC: Institute for Higher Education Policy. Retrieved from <http://www.ihep.org/research/publications/private-scholarships-count-access-higher-education-and-critical-role-private>

Dale, S. B., & Krueger, A. B. (2002). Estimating the payoff to attending a more selective college: An application of selection on observables and unobservables. *Quarterly Journal of Economics*, 117(4), 1491-1527. doi:10.1162/003355302320935089

Daniel, K., Black, D., & Smith, J. (1995). *College quality and the wages of young men* (Unpublished manuscript). Philadelphia: University of Pennsylvania. Retrieved from <http://econpapers.repec.org/scripts/redir.pf?u=http%3A%2F%2Feconwpa.repec.org%2Feps%2Fwpa%2Fpapers%2F9604%2F9604001.pdf;h=repec:wpa:wuwphe:9604001>

D. Capital Partners. (2013). *Impact investing in education: An overview of the current landscape* (ESP Working Paper 2013 no. 59). New York: Open Society Foundations. Retrieved from [http://www.opensocietyfoundations.org/sites/default/files/impact-investing-education-overview-current-landscape-20140106\\_0.pdf](http://www.opensocietyfoundations.org/sites/default/files/impact-investing-education-overview-current-landscape-20140106_0.pdf)

Deresiewicz, W. (2008, June 1). *The disadvantages of an elite education*. *The American Scholar*. Retrieved from <https://theamericanscholar.org/the-disadvantages-of-an-elite-education/>

Domhoff, G. W. (2014). *Who rules America? The triumph of the corporate rich* (7th ed.). New York: McGraw-Hill Education.

Dye, T. R. (2014). *Who is running America?* (8th ed.). Boulder, CO: Paradigm Publishers.

Eide, E., Brewer, D. J., & Ehrenberg, R. G. (1998). Does it pay to attend an elite private college? Evidence on the effects of undergraduate college quality on graduate school attendance. *Economics of Education Review*, 17(4), 371-376. doi:10.1016/S0272-7757(97)00037-X

Equity Group Foundation. (2014). *Top KCSE scholars admitted to top global universities*. Nairobi: Equity Group Foundation. Retrieved from <http://equitygroupfoundation.com/78/>

Ermisch, J., & Del Bono, E. (2012). Inequality in achievements during adolescence. In J. Ermisch, M. Jäntti, & T. Smeeding (Eds.), *From parents to children: The intergenerational transmission of advantage* (pp. 285-308). New York: Russell Sage Foundation.

European University Association. (2012). *EUA's Public Funding Observatory*. Brussels: European University Association. Retrieved from [http://www.eua.be/Libraries/Governance\\_Autonomy\\_Funding/June\\_2012\\_report\\_FINAL.sflb.ashx](http://www.eua.be/Libraries/Governance_Autonomy_Funding/June_2012_report_FINAL.sflb.ashx)

- European Venture Philanthropy Association. (2011). An introduction. Brussels: European Venture Philanthropy Association. Retrieved from [http://evpa.eu.com/wp-content/uploads/2010/08/EVPA-Introduction-October-2011\\_\\_2.pdf](http://evpa.eu.com/wp-content/uploads/2010/08/EVPA-Introduction-October-2011__2.pdf)
- Fleming, J. (1984). *Blacks in college*. San Francisco: Jossey-Bass.
- Freedman, J. (2013, November 14). The farce of meritocracy: Why legacy admissions might actually be a good thing. *Forbes*. Retrieved from <http://www.forbes.com/sites/joshfreedman/2013/11/14/the-farce-of-meritocracy-in-elite-higher-education-why-legacy-admissions-might-be-a-good-thing/>
- Freireich, J., & Fulton, K. (2009). *Investing for social and environmental impact: A design for catalyzing an emerging industry*. San Francisco: Monitor Institute. Retrieved from [http://monitorinstitute.com/downloads/what-we-think/impact-investing/Impact\\_Investing.pdf](http://monitorinstitute.com/downloads/what-we-think/impact-investing/Impact_Investing.pdf)
- Fox, M. (1993). Is it a good investment to attend an elite private college? *Economics of Education Review*, 12(2), 137-151. doi:10.1016/0272-7757(93)90025-C
- Gaxie, D. (1983). Les facteurs sociaux de la carrière gouvernementale sous la Cinquième République de 1959 à 1981. *Revue Française de Sociologie*, 24(3), 441-465. doi:10.2307/3321869
- Gazmuri, C. (2001). *Notas sobre las élites chilenas, 1930-1999* (Documento de Trabajo no. 3). Santiago: Instituto de Historia, Pontificia Universidad Católica de Chile.
- Ghase-Lansdale, P. L., & Brooks-Gunn, J. (Eds.). (1995). *Escape from poverty: what makes a difference for children?* Cambridge: Cambridge University Press.
- Global Impact Investing Network. (2014). *About impact investing*. New York: Global Impact Investing Network. Retrieved from <http://www.thegiin.org/cgi-bin/iowa/resources/about/index.html>
- Greenaway, D., & Haynes, M. (2003). Funding higher education in the UK: The role of fees and loans. *Economic Journal*, 113(485), F150-F166.
- Greenwood, J., Guner, N., Kocharkov, G., & Santos, C. (2014). *Marry your like: Assortative mating and income inequality* (NBER Working Paper no. 19829). Cambridge, MA: National Bureau of Economic Research. doi:10.3386/w19829
- Haveman, R., & Smeeding, T. (2006). The role of higher education in social mobility. *The Future of Children*, 16(2), 125-150.
- Hayes, R. J. (2014, February 27). Why Ivy League schools are so bad at economic diversity. *Atlantic*. Retrieved from <http://www.theatlantic.com/education/archive/2014/02/why-ivy-league-schools-are-so-bad-at-economic-diversity/284076/>
- Haynie, D. (2015, January 13). 10 universities with the largest financial endowments. *U.S. News & World Report*. Retrieved from <http://www.usnews.com/education/best-colleges/the-short-list-college/articles/2015/01/13/10-universities-with-the-largest-financial-endowments>
- Hou, F., & Myles, J. (2008). The changing role of education in the marriage market: Assortative marriage in Canada and the United States since the 1970s. *Canadian Journal of Sociology*, 33(2), 337-366.
- Hoxby, C. M., & Avery, C. (2012). The missing "one-offs": The hidden supply of high-achieving, low income students (NBER Working Paper no. 18586). Cambridge MA: National Bureau of Economic Research. Retrieved from <http://www.nber.org/papers/w18586>
- Huwylar, F., Kaeppli, J., Serafimova, K., Swanson, E., & Tobin, J. (2014). *Making Conservation Finance Investable*. Stanford Social Innovation Review. Retrieved from [http://www.ssireview.org/up\\_for\\_debate/article/making\\_conservation\\_finance\\_investable](http://www.ssireview.org/up_for_debate/article/making_conservation_finance_investable)

- International Finance Corporation. (2012). Inclusive business models—Guide to the Inclusive Business Models in IFC's Portfolio. Retrieved from <http://www.ifc.org/wps/wcm/connect/7d1a71804d332f208991cdf81ee631cc/Ideal+Invest.pdf?MOD=AJPERES>
- Jalbout, M. (2014). The case for engaging Arab donors in financing global education (Global Economy & Development Working Paper no. 80). Washington, DC: Brookings Institution. Retrieved from <http://www.brookings.edu/research/papers/2014/10/31-engaging-arab-donors-financing-global-education-jalbout>
- Jose, A. E. (2014). Finding the linguist: An AB English graduates tracer study. *International Journal of English Language Education*, 2(2), 241-252. <http://dx.doi.org/10.5296/ijele.v2i2.6295>
- J.P. Morgan. (2010). *Impact investments: an emerging asset class*. New York: J.P. Morgan Global Research.
- J.P. Morgan. (2011). *Insight into the impact investment market*. New York: J.P. Morgan Global Research.
- Kaufmann, K. M., Messner, M., & Solis, A. (2013). Returns to elite higher education in the marriage market: Evidence from Chile. Social Science Research Network. <http://dx.doi.org/10.2139/ssrn.2313369>
- Kendall, D. (2002). *The power of good deeds: Privileged women and the social reproduction of the upper class*. Lanham, MD: Rowman & Littlefield.
- Khan, S. R. (2011). *Privilege: The making of an adolescent elite at St. Paul's School*. Princeton, NJ: Princeton University Press.
- Leathwood, C. (2004). A critique of institutional inequalities in higher education: (Or an alternative to hypocrisy for higher educational policy). *Theory and Research in Education*, 2(1), 31-48.
- Leitch, A. (1978). *A Princeton companion*. Princeton, NJ: Princeton University Press.
- Levine, A., & Nidiffer, J. (1996). *Beating the odds: How the poor get to college*. San Francisco: Jossey-Bass.
- Listyarini, S., Ratnaningsih, D. J., & Yuliana, E. (2010). The use of information and communication technology in Universitas Terbuka learning: Alumni and stakeholder perception. *Asian Association of Open Universities Journal*, 5(2), 89-102.
- Livanos, I. (2010). The relationship between higher education and labour market in Greece: the weakest link? *Higher Education*, 60(5), 473-489. doi:10.1007/s10734-010-9310-1
- Loury, L. D., & Garman, D. (1995). College selectivity and earnings. *Journal of Labor Economics*, 13(2), 289-308.
- Lumni. (2014). *How it works*. New York: Lumni Inc. Retrieved from <http://www.lumniusa.net/overview>
- Lyn, T. (2004). Mature working class students in an "elite" university: Discourses of risk, choice and exclusion. *Studies in the Education of Adults*, 36(2), 252-264.
- Maclea, M., Harvey, C., & Kling, G. (2014). Pathways to power: Class, hyper-agency and the French corporate elite. *Organization Studies*, 35(6), 825-855. doi:10.1177/0170840613509919
- Martin, M. (2013). *Status of the social impact investing market: A primer*. London: UK Cabinet Office. Retrieved from [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/212511/Status\\_of\\_the\\_Social\\_Impact\\_Investing\\_Market\\_-\\_A\\_Primer.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/212511/Status_of_the_Social_Impact_Investing_Market_-_A_Primer.pdf)
- McGrath, M. (2013, November 27). The challenge of being poor at America's richest colleges. *Forbes*. Retrieved from <http://www.forbes.com/sites/maggiemcgrath/2013/11/27/the-challenge-of-being-poor-at-americas-richest-colleges/>

- Milburn, A. (2012). *University challenge: How higher education can advance social mobility: A progress report by the independent reviewer on social mobility and child poverty*. London: UK Cabinet Office. Retrieved from <http://socialwelfare.bl.uk/subject-areas/services-activity/education-skills/cabinetoffice/137068Higher-Education.pdf>
- Mills, C. W. (1956). *The power elite*. New York: Oxford University Press.
- Mulgan, G., Reeder, N., Aylott, M., & Bo'sher, L. (2010). *Social impact investment: the opportunity and challenge of social impact bonds*. London: The Young Foundation. Retrieved from <http://youngfoundation.org/wp-content/uploads/2012/10/Social-Impact-Investment-The-opportunity-and-challenge-of-Social-Impact-Bonds-March-2011.pdf>
- Murray, C. (2013). *Coming apart: The state of White America, 1960–2010*. New York: Crown Forum.
- National Center for Education Statistics. (2013). *The condition of education*. Washington, DC: National Center for Education Statistics. Retrieved from <http://nces.ed.gov/pubs2013/2013037.pdf>
- Office for Fair Access. (2014). *Trends in young participation by student background and selectivity of institution (February 2014/01)*. Bristol, UK: Office for Fair Access.
- Ono, H. (2003). College quality and earnings in the Japanese labor market. *SSE/EFI Working Paper Series in Economics and Finance*, no. 395. Retrieved from <http://econpapers.repec.org/paper/hhshastef/0395.htm>
- Ono, H. (2008). Training the nation's elites: National-private sector differences in Japanese university education. *Research in Social Stratification and Mobility*, 26(4), 341-356. doi:10.1016/j.rssm.2008.08.002
- Organisation for Economic Co-operation and Development. (2014). *Education at a glance: OECD indicators*. Paris: Organisation for Economic Cooperation and Development. Retrieved from <http://www.oecd.org/edu/Education-at-a-Glance-2014.pdf>
- O'Shaughnessy, L. (2011). 20 surprising higher education facts. *U.S. News & World Report*. Retrieved from <http://www.usnews.com/education/blogs/the-college-solution/2011/09/06/20-surprising-higher-education-facts>
- Pfeffer, J., & Fong, C. T. (2004). The business school 'business': Some lessons from the US experience. *Journal of Management Studies*, 41(8), 1501-1520. doi:10.1111/j.1467-6486.2004.00484.x
- Radford, A. W. (2013, September 16). 'No point in applying': Why poor students are missing at top colleges. *The Atlantic*. Retrieved from <http://www.theatlantic.com/education/archive/2013/09/no-point-in-applying-why-poor-students-are-missing-at-top-colleges/279699/>
- Ramirez, R. (2012, October 19). Ivy League schools don't reflect US minority ratios. *National Journal*. Retrieved from <http://www.nationaljournal.com/thenextamerica/education/ivy-league-schools-don-t-reflect-u-s-minority-ratios-20121019>
- Rangan, V., Appleby, S., & Moon, L. (2012). *The promise of impact investing*. Harvard Business School Background Note 512-045. Retrieved from <http://www.hbs.edu/faculty/Pages/item.aspx?num=41512>
- Rany, S., Souriyavongsa, T., Zain, A. N., & Jamil, H. (2013). Investigating the institutional policies that contribute toward the students' academic success in a Cambodian university. *International Journal of Humanities and Social Science*, 3(1), 113-124.
- Reay, D., David, M. E., & Ball, S. (2005). *Degrees of choice: Class, race, gender, and higher education*. Stoke-on-Trent: Trentham Books.
- Reay, D., Crozier, G., & Clayton, J. (2009). 'Strangers in paradise?': Working-class students in elite universities. *Sociology*, 43(6), 1103-1121. doi:10.1177/0038038509345700

- Rhodes House. (2015). About the Rhodes Scholarships. Oxford: Rhodes House. Retrieved from <http://www.rhodeshouse.ox.ac.uk/rhodesscholarship/about-the-rhodes-scholarships>
- Richardson, I. N., Kakabadse, A. P., & Kakabadse, N. K. (2011). *Bilderberg people: Elite power and consensus in world affairs*. New York: Routledge.
- Russell Group. (2015). About us. Cambridge: The Russell Group of Universities. Retrieved from <http://www.russellgroup.ac.uk/about-russell-group/>
- Schomburg, H. (2003). *Handbook for graduate tracer studies*. Kassel, Germany: Centre for Research On Higher Education and Work. Retrieved from [http://www.uni-kassel.de/wz1/proj/edwork/mat/handbook\\_v2.pdf](http://www.uni-kassel.de/wz1/proj/edwork/mat/handbook_v2.pdf)
- Silva, J., Snellman, K., & Frederick, C. B. (2014). The privatization of 'savvy': Class reproduction in the era of college for all (INSEAD Working Paper 2014/47/OBH). <http://dx.doi.org/10.2139/ssrn.2473462>
- Simon, J., & Barmeier, J. (2010). *More than money: Impact investing for development*. Washington, DC: Center for Global Development. Retrieved from [http://www.cgdev.org/sites/default/files/1424593\\_file\\_More\\_than\\_Money\\_FINAL\\_web.pdf](http://www.cgdev.org/sites/default/files/1424593_file_More_than_Money_FINAL_web.pdf)
- Social Impact Investment Taskforce. (2014). *Impact investment: the invisible heart of markets*. London: UK Cabinet Office. Retrieved from <http://www.socialimpactinvestment.org/reports/Impact%20Investment%20Report%20FINAL%5B3%5D.pdf>
- Strathmore University. (2012). SU partners with KIVA for tuition and laptop loans. Nairobi: Strathmore University. Retrieved from <http://www.strathmore.edu/oldsite/News.php?NewsID=753>
- Suleiman, E. (1997). Les élites de l'administration et de la politique. In Suleiman E., & Mendras, H. (Eds.), *Le recrutement des élites en Europe*. Paris: La Découverte.
- United Nations. (2015). *Millennium Development Goals*. New York: United Nations. Retrieved from <http://www.un.org/millenniumgoals/>
- Wakeford, F. & Wakeford, J. (1974). Universities and the study of elites. In Stanworth, P., & Giddens, A. (Eds.), *Elites and power in British Society* (pp. 185-197). Cambridge: Cambridge University Press.
- Weber, M. (1947). *The theory of social and economic organization*. New York: The Free Press.
- Webley, K. (2013, April 2). College admissions: Ivy league acceptance rates decline. Time. Retrieved from <http://nation.time.com/2013/04/02/ivy-league-schools-accepting-even-fewer-kids/>
- World Economic Forum. (2013). *From the margins to the mainstream: Assessment of the impact investment sector and opportunities to engage mainstream investors*. Geneva: World Economic Forum. Retrieved from [http://www3.weforum.org/docs/WEF\\_II\\_FromMarginsMainstream\\_Report\\_2013.pdf](http://www3.weforum.org/docs/WEF_II_FromMarginsMainstream_Report_2013.pdf)
- World Economic Forum. (2014a). *Charting the course: How mainstream investors can design visionary and pragmatic impact investing strategies*. Geneva: World Economic Forum. Retrieved from [http://www3.weforum.org/docs/WEF\\_ImpactInvesting\\_Report\\_ChartingTheCourse.pdf](http://www3.weforum.org/docs/WEF_ImpactInvesting_Report_ChartingTheCourse.pdf)
- World Economic Forum. (2014b). *Education and skills 2.0: new targets and innovative approaches*. Geneva: World Economic Forum. Retrieved from [http://www3.weforum.org/docs/GAC/2014/WEF\\_GAC\\_EducationSkills\\_TargetsInnovativeApproaches\\_Book\\_2014.pdf](http://www3.weforum.org/docs/GAC/2014/WEF_GAC_EducationSkills_TargetsInnovativeApproaches_Book_2014.pdf)
- Zhang, L. (2005). *Does quality pay? Benefits of attending a high-cost, prestigious college*. New York: Routledge.
- Ziegler, P. (2008). *Legacy: Cecil Rhodes, the Rhodes Trust and Rhodes Scholarships*. New Haven: Yale University Press.





The information provided herein was produced by Credit Suisse AG and/or its affiliates (hereafter "CS") with the greatest of care and to the best of its knowledge and belief. The information and views expressed herein are those of CS at the time of writing and are subject to change at any time without notice. They are derived from sources believed to be reliable. CS provides no guarantee with regard to the content and completeness of the information and does not accept any liability for losses that might arise from making use of the information. If nothing is indicated to the contrary, all figures are unaudited. The information provided herein is for the exclusive use of the recipient. Neither this information nor any copy thereof may be sent, taken into or distributed in the United States or to any U.S. person (within the meaning of Regulation S under the US Securities Act of 1933, as amended). It may not be reproduced, neither in part nor in full, without the written permission of CS.

For EEA: When distributed or accessed from the EEA, this is distributed by Credit Suisse Asset Management Limited which is authorized and regulated by the Financial Conduct Authority. For Brazil: When distributed or accessed from Brazil, this is distributed by Banco de Investimentos Credit Suisse (Brasil) S.A. and/or its affiliates. In Brazil: The information contained herein is for informational purposes only and is not, and under no circumstances is to be construed as, a prospectus, an advertisement, a public offering, an offer to sell the securities described herein or a solicitation of an offer to buy the securities described herein in Brazil. Any public offer or sale of the securities described herein will be made only if applicable registration in the Brazilian Securities Commission is obtained. No invitation to offer, or offer for, or sale of, any investment will be deemed to the public in Brazil or by any means would be deemed public offering of securities in Brazil. Under no circumstances is the information contained herein to be construed as investment advice. Brazilian Securities Commission has not reviewed the material herein.

For Australia: In Australia, this document is only made available to permitted recipients who qualify as wholesale clients as that term is defined by section 761G(7) of the Australian Corporations Act 2001. Credit Suisse Group entities, other than Credit Suisse AG, Sydney Branch, are not authorised deposit-taking institutions for the purposes of the Banking Act 1959 (Cth.) and their obligations do not represent deposits or other liabilities of Credit Suisse AG, Sydney Branch. Credit Suisse AG, Sydney Branch does not guarantee or otherwise provide assurance in respect of the obligations of such Credit Suisse entities. For distribution. For France: In France this document is distributed by Credit Suisse (Luxembourg) S.A., Succursale en France.