UBS

UBS Optimus Foundation

# Investing in potential

## Closing the tertiary education financing gap with income share agreements

**March 2021**

Davis College, Rwanda

What if every young person had access to a bright future? We know that education is a path out of poverty, improves health and strengthens the economic well-being of whole communities.

Barriers to tertiary education increase inequality. Yet funding for most low-income students remains out of reach. Government funding and scholarships can't fill the gap.

At UBS Optimus Foundation, we're exploring solutions. One promising tool is the income share agreement, or ISA. This alternative financing instrument can contribute to closing the market gap, so more young people have fair access to education.

# The positive impact of education is immense. So why are so few students from low-income countries able to benefit?

## The catalyzing effects of education

Education is often regarded as a catalyst for achieving the sustainable development goal (SDG) 2030 agenda. SDG 4 for quality education is closely linked to further goals like poverty reduction (SDG 1), health gains (SDG 3), gender equality and empowerment (SDG 5), and environmental protection and resilience (SDGs 12, 13, 14, 15). Public funds and official development assistance need to be complemented by private capital to sufficiently address global education challenges. But impact investors currently direct only 3% of their budget to education.[1]

The average private (individual) return globally for one additional year of schooling is 10% globally. This means that on average a person who spends one more year at school compared to peers will earn a tenth more. Tertiary education shows the highest rate of return (15%) with higher returns observable in sub-Saharan Africa (21%), South Asia (17%) and Latin America (16%) relative to high-income countries (11%).[2] This implies that in sub-Saharan Africa (SSA), on average, a person with a three-year college degree would earn about 60% more than an individual holding a secondary school diploma.

## Financial barriers to tertiary education

At the same time, tertiary education participation rates in low- and lower-middle-income regions are amongst the lowest globally and access opportunities are unequal. In SSA, for example, "household wealth continues to constitute the most decisive factor in determining a student's chance of accessing tertiary education."[3] In SSA, only 9% of young people access tertiary education. While the share has doubled since 2000, it remains well below the world average (38%) and is significantly lower than the average in North America (86%) or the European Union (69%).[4] Beyond access, the relevance of tertiary education programs for the labor market is in question: 54% of African employers state that job seekers' skills do not match their needs.[5]

Barriers to accessing tertiary education resulting from financial constraints can perpetuate social inequity. Inclusive financing mechanisms can help students from minority or low-income families access tertiary education and gain equal academic and professional opportunities independent of their background. Income share agreements (ISAs) have emerged as a solution that – if well designed and implemented – could help fill the market gap for inclusive education financing, better learning and employment outcomes. While the ISA model originated in the United States in the 1970s[6], a few ISA providers are starting to operate in low- and lower-middle-income regions, like SSA.

[1] Global Impact Investing Network (2020), 2020 Annual Impact Investor Survey.
[2] World Bank (2014), Comparable Estimates of Returns to Schooling Around the World. According to the UNESCO's glossary, tertiary education is the extension of secondary education in specialized fields of education, including what is commonly understood as academic education but also advanced vocational or professional education.
[3] World Bank (2017), Sharing Higher Education's Promise beyond the Few in sub-Saharan Africa https://elibrary.worldbank.org/doi/abs/10.1596/978-1-4648-1050-3.
[4] UNESCO database retrieved on October 5th 2020
[5] Hanan Morsy and Adamon N. Mukasa (2020), Youth Jobs, Skill and Educational Mismatches in Africa, African Development Bank Group.
[6] Steven Mark Holliday and Ergun Gide (2016), Funding Higher Education in Australia: Is it Time to Look at Income Share Agreement as an Alternative Model to Income Contingent Loans?, IJLTER.

# The main problem? Mind the gap.

## A lack of adequate education financing solutions

When financing options are available in low- and lower-middle-income countries, many students fail to access those as a result of eligibility assessments focused on students' current finances, personal circumstances and educational attainment.

Bank loans require collateral or co-signers, keeping them out of reach for most students from low-income families. Governments of some low- and lower-middle-income countries offer student loans at subsidized rates. But provision of these loans, dependent on public resource budget allocations, are often limited in amount and reach few students. For example, in Kenya the total student loan amount disbursed under the government loan program (Higher Education Loans Board or HELB) is KSH 40,000, or roughly 400 US dollars per student.

Some governments and schools offer scholarships, but the provision of scholarships requires a constant flow of donor funding whether from public or philanthropic sources. This is why scholarships most often target the poorest students, leaving other needy students who are ineligible for a bank loan without any source of funding. Sometimes such funds are allocated based on merit to those with good past academic performance. But this doesn't promote inclusiveness, as secondary education quality can vary significantly within the same country.

Even students who benefit from available funding or rely on self-sponsorship may find themselves needing additional funds to complement the relatively small amounts available or amounts restricted to tuition fees. Clearly, there's a market gap and need for alternative inclusive financing instruments to facilitate access to tertiary education.

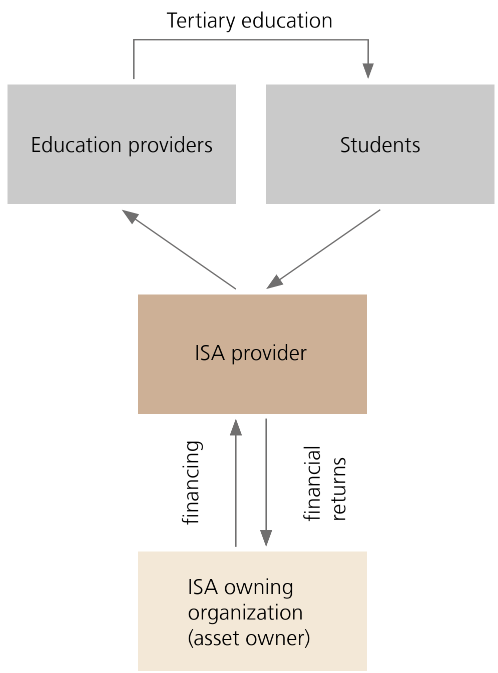
# What kind of financing can close this gap?

## The income share agreement solution

Income share agreements (ISAs) can grant access to financing regardless of a student's current situation. Simply put, an ISA is an investment that relies on the student's potential to thrive in the future. Without requiring collateral, an investor provides upfront funding for a student's study costs. In return, the student commits to pay a percentage of his/her future income over a specified period of time to the investor. In many ISA frameworks the repayment mechanism is triggered as soon as the student earns an income above a certain threshold. If at any point in time during the repayment period the student's income falls below that threshold, repayments are temporarily suspended.
Parameters of ISAs include:

- Maximum ISA amount limited to tuition, fees and/or living expenses
- Fixed contract period or maximum number of payments
- Grace periods following graduation (or due to personal circumstances)
- Income percentage used for repayments (fixed or variable based on upfront funding)
- Income threshold below which no payment obligation exists
- Maximum repayment amount

## ISA structure and stakeholders




## Student loan vs. income share agreement

| | **Student loan** | **Income share agreement** |
|---|---|---|
| Repayment amount | Fixed principal plus accrued interest.<br><br>The student pays back the amount financed plus interest, independent of their employment outcomes. | Percentage of income, capped by maximum repayment amount, maximum number of repayments and/or a maximum repayment period.<br><br>The student may pay more or less than the amount financed depending on their employment outcomes. Constant debt-income ratio as the repayment is a percentage of income earned in a month. |
| Repayment schedule | Repayments start once the student graduates. Fixed payments are independent of income level (some income-contingent options available). | Repayments start once the student earns above a minimum threshold. The student pays a fixed percentage of monthly income as long as it remains above a minimum threshold. |
| Who pays the most? | Least successful graduates who incur late fees and negative amortizations. | Most successful graduates. |
| Credit requirement | Most require collateral, credit history and creditworthy cosigners. | Most require enrollment in value-for-money education programs. May require guardians to cosign. |

## Repayment based on ability

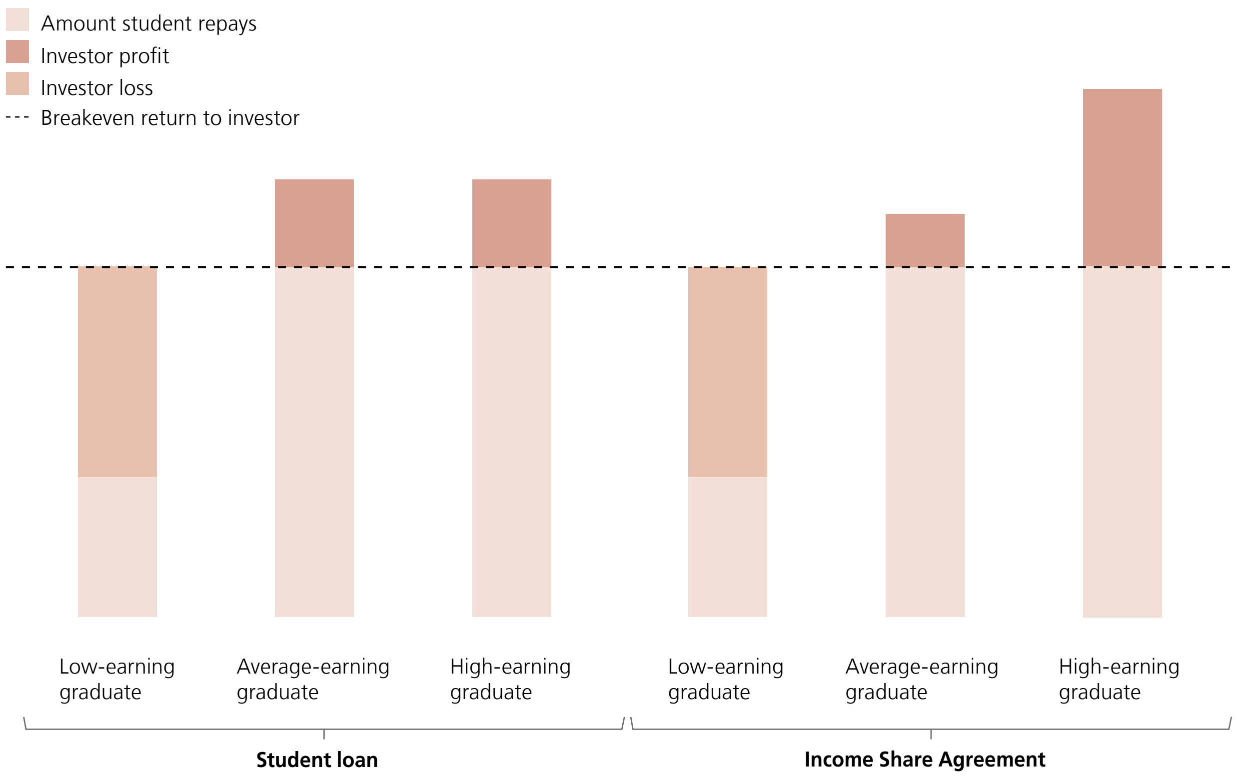
With a student loan, the student is obliged to repay the principal amount and accrued interest on a fixed schedule independent of his/her level of income. In contrast, with the ISA the student passes part of the risk of inadequate employment outcomes on to the investor.

In the case of traditional loans, a low-earning graduate may face a mounting debt burden. Average or high-earning graduates, in contrast, will pay down the principal and accumulated interest. The lender's upside is limited to the graduates' interest payments.

With an ISA, a successful graduate may ultimately repay more than the amount of financing he/she has received. Thanks to the higher return generated by high-earning graduates, the investor's loss on low-earning graduates is partially compensated. Consequently, the investor doesn't need to recoup loss by penalizing graduates who already struggle to repay with late fees and negative amortizations.

It's also important to protect graduates, however successful they may be in their jobs, from excessive repayments. Most ISA frameworks specify a maximum repayment amount, maximum repayment period and/or maximum number of payments to cap the repayment.

## Investor returns: student loan vs. income share agreement




Adapted from Bair, S. & Cooper, C. (2019). "The Future of Income Share Agreements".

# Importantly, ISAs grant access to education. But what else can they do?

## More than just financing

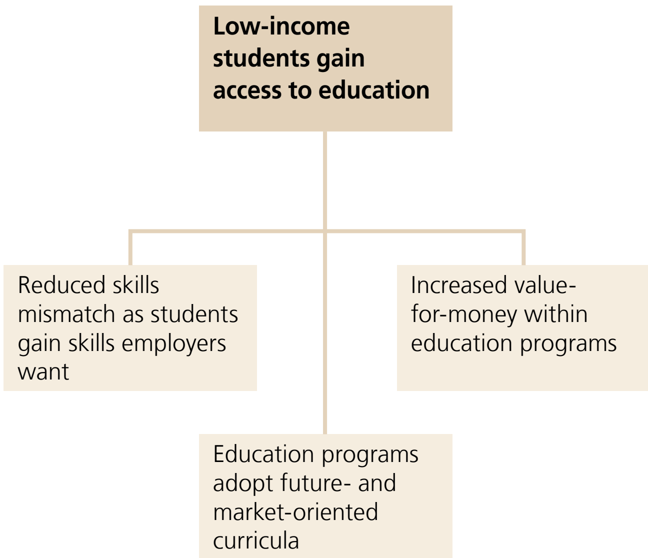
ISAs can contribute to tackling information asymmetry between employers, education providers and students. In doing so they can also strengthen the tertiary education system.

Too often, education programs fail to equip students with skills that meet labor market demand. By linking ISAs to tertiary education providers that offer sought-after skills, ISAs can contribute to **reducing the current skills mismatch**, thereby creating efficiencies for education providers, students and employers alike. Employment and the student's level of income are the decisive factors for the investor/ISA-owning organization to recover upfront funding and generate any potential return. So, an in-depth understanding of the job market and skills in demand is  crucial.

ISAs align the incentives of investors, ISA providers and education providers by putting the student's future success at the center. Labor market studies inform the technical design and the selection of education partners in order to reduce the risk of insufficient repayments. Backing a tertiary education provider through ISAs is a sign of confidence that the provider's **curriculum is future- and market-oriented** – it may even spur other education providers to adapt curricula to meet the ISA provider's requirements. ISA providers will continue to collect data on the employment outcomes of graduates over time, allowing them to analyze and (re-)assess the effects and impact of education on the individual and in labor markets.

ISAs can also help **promote value-for-money programs** as it is in the interest of the ISA provider (and investor/ISA-owning organization) to link the instrument to a program that is not only affordable but also provides quality education that maximizes the probability of gainful employment for students. This is valuable information for students: it can help inform their selection of an education program from which they can anticipate a future income that justifies the tuition charged. Education providers also benefit as the ISA may serve as an additional validation of their education program, helping them attract more students. More importantly, students who otherwise wouldn't have had the chance to enroll because of financial constraints can do so – also helping education providers reach their social and diversity targets.

## The primary and secondary benefits of ISAs



# What about critique of ISAs? Can the concerns be addressed?

## A need for better design and implementation

As ISAs have gained traction over the past five years or so, common concerns and some substantiated criticisms have emerged. But these can be addressed and overcome by ISAs that are designed and implemented in a fair and student-centric manner.

## Promoting inclusiveness

One of the concerns is that ISA providers would target exclusively elite schools and degree programs. But, in fact, the sweet spot for ISAs are programs that give the best value for money. This is where the tuition fees are aligned with the economic benefits that students will derive from their education.

Another concern is that ISAs may discriminate against students based on gender, ethnicity or poverty on the grounds that their labor market outcomes may be more uncertain and inferior to others. Actually, ISAs have the potential to do the opposite by offering a financing solution to students who wouldn't otherwise have options either because they are ineligible for or they are risk-averse to student loans given their difficult personal financial situation. ISA providers can take concrete steps to drive inclusiveness: while admission processes are usually handled by the schools, ISA providers can require schools to meet certain gender, race, cultural or geographic diversity targets.

## Focusing on consumer protection

Critics highlight that students who sign an ISA may be misled by the ISA provider's presentation as an alternative to a traditional student loan, overlooking future financial obligations. While this danger is present with any financial product, it is especially true for ISAs since governments unfortunately have not yet implemented specific regulation and corresponding consumer protection frameworks.

To provide clarity on the terms, ISA providers can offer information sessions and workshops that explain the model and address students' questions and concerns. Furthermore, to ensure that only students with a clear understanding of the financial obligations sign a contract, students can be assessed through a questionnaire on their knowledge of ISA terms before signing.

Graduates, especially those from low-income communities, can have diverse financial obligations, including to family members. So, prior to graduation, financial literacy trainings organized by ISA providers can help prepare students to budget for income-based repayments.

## Ensuring fair cross-subsidization

A key feature of an ISA portfolio is cross-subsidization: where graduates with high-paying jobs pay back more than they would under a traditional loan to compensate for their peers who earn less and potentially return less than their tuition fees. To make an ISA program both socially and financially sustainable on the long-term, it is key to strike a balance in cross-subsidization so it is sufficiently attractive and protective for all students. There are a number of ISA design parameters that can be used but currently little evidence exists on the optimal calibration of such parameters.

First, the repayment cap defines the maximum amount that students pay back (it can range between 1x to 2.5x) so that very successful students do not pay back a disproportionate amount. Second, students can be given the option to prepay the ISA at lower multiples. Finally, the ISA's price should mirror the cost-benefit ratio of the education program: more favorable terms (lower cap, lower income share, shorter repayment period) can be offered to students attending higher value-for-money education programs. This would require the ISA provider to have access to data on employment outcomes and an in-depth understanding of labor market trends.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## Helping students succeed

During the course of the education program, it is in the ISA provider's interest to offer workshops and trainings to help students acquire additional professional and social skills that strengthen their competitiveness in the job market. This may also include mentorship programs, which in the long-run can be self-sustained by the community when recent graduates/mentees become mentors for future cohorts.

Such programs are not only beneficial to the development of the student but can also enhance the transparency of the ISA for students and create a sense of solidarity. Financial inflows resulting from former graduates' employment essentially allow the ISA provider to fund the current cohort.

## Targeting financial sustainability

The financial viability of ISA models, particularly in low- and lower-middle-income countries, is yet to be proven. Sourcing reliable information on graduates' level of income is a challenge. Some governments, as in Australia, are using the taxation system for the purpose of income monitoring and collections related to income-contingent student loan schemes. But establishing systems like this is difficult in low- and lower-middle-income countries, where institutions tend to be weaker.

Without official monitoring, the ISA provider is left to rely on the information shared by the students themselves, like pay slips or employment contracts. If graduates choose to withhold information, ISA providers have limited recourse. And without credit bureau reporting requirements, the credit scores of graduates who do not fulfill their obligations are not affected. ISA providers rely instead on cultivating a sense of solidarity by emphasizing that repayments from graduates essentially allow for the financing of new students. ISA providers can stay engaged with the graduates through alumni networks and the schools. And to foster good repayment behavior some ISA providers have begun to charge a token monthly amount to unemployed or low-earning graduates. Intuitively, such strategies can build trust between the ISA provider and graduate but we do not yet have data on long-term repayment trends to confirm or reject this assumption.

Clearly, ISAs in low- and lower-middle-income countries will require a high level of engagement with students from application through graduation, on to employment and the end of the ISA contract. Monitoring of ISAs and processing of payments appear more challenging to standardize and automate than with loans. This work is quite labor-intensive and requires a complex technical infrastructure, often proving quite expensive.

ISA providers will need to iterate and improve their models using data – from applicant screening to payment collection, using technology to streamline operations. It will take several years and models implemented at sufficiently large scale to prove that ISAs can be financially sustainable in low- and lower-middle-income countries.

# Who should fund ISAs?

## The potential funders

An ISA is an asset where value depends on the student's future earnings. Various organizations could potentially fund an ISA and become asset owner. There are diverse motivations and implications for education providers, employers and investors to become ISA asset owners.

## Education providers as asset owners

Education providers themselves – universities as well as vocational training providers – can offer ISAs to their students. Vocational training providers have gained prominence, particularly in the IT sector, often in the form of so-called bootcamps with intensive training over a short period. Bootcamps leave their graduates with a very specific skill set, like coding, allowing them to (re-)enter the workforce within a much shorter period than if they had pursued a university degree. As such, investors can expect repayments coming in much earlier than from university graduates who can spend several years pursuing a degree. If education providers offer ISAs directly to their students, this could significantly improve the labor market-relevance of education since it's in the (financial) interest of the institution to successfully prepare students for well-paid employment.

## Potential employers or industry players as asset owners

Companies can become asset owners of ISAs. By providing funds to students who wish to pursue an education that teaches them skills relevant to the funding company, ISAs can enhance a company's positioning as an attractive employer. At the same time, ISAs can help draw talent toward specific sectors experiencing labor shortages.

When eventually hiring an ISA graduate, the company could offer preferential repayment terms, like a lower percentage of income, if the graduate commits to a certain minimum employment period. Such an agreement is only beneficial to graduates if salaries are not reduced to compensate the employer for reduced returns. Throughout the study period the asset-owning company could offer mentorship to ISA students to further support their development. And to widen reach, companies seeking specific skills could pool funds in the common interest of reducing the skills mismatch within an industry.

**Social Finance's pay-for-success strategy to improve education access for low-income populations in the United States**

Social Finance developed an ISA framework with a distinct focus on improving access to high-quality workforce development programs for low-income populations:

- Impact investors provide catalytic capital to training providers to cover upfront training costs and critical support services for typically underserved students.
- Students enroll free of charge, persist and graduate. Those who gain meaningful employment repay program costs through an ISA-like repayment model.
- Impact investors and training providers share any payments received from students who find good jobs and achieve increased economic mobility. This aligns incentives and ensures all parties are focused on student success.

This ISA framework includes support services like benefits enrollment assistance and emergency aid funding to help students address real-life challenges so they can focus on their training. The funding mechanism is the UP Fund, a USD 40 million pool of capital designed to support 8-12 training programs.

SOCIAL FINANCE

## Investors as the asset owner

ISAs can be an attractive investment opportunity for investors who seek to direct capital toward the SDGs. Financing education allows investors to maximize their impact with a focused investment across several SDGs.

The measurable social outcomes associated with investment in ISAs are the number of students finding employment following graduation, retention rates and the quality of employment with the income level as a proxy. By pooling capital from different types of investors into a fund, investors with varying risk profiles can seek returns. Blended finance structures, where philanthropic capital or grants create a first-loss cushion, may also increase the attractiveness of ISAs to commercial investors. Such structures could help counter concerns around the uncollateralized character of ISAs.

Depending on the type of asset owner, the purpose behind the investment may vary, reflected in the broader ISA design. As an investor who seeks to generate measurable social outcomes, UBS Optimus Foundation will support ISA models that have a holistic social mission.

**CHANCEN International - the Future of Work Fund to finance the studies of 10,000 young Africans**
Initially organized as a student cooperative in Germany where students themselves first developed ISAs in 1995, CHANCEN International has piloted ISAs in Rwanda, reaching over 1,300 students (USD 1.4 million) since July 2018.

CHANCEN's model is based on partnering with a select number of schools, including colleges, universities and vocational training institutions, that can prove a high level of employment among graduates. Their focus is to provide financing to students from vulnerable backgrounds experiencing financial and social exclusion.

To bring this model to scale in sub-Saharan Africa, CHANCEN International is now launching the Future of Work Fund (FWF) with a target to raise USD 21 million.

Through its blended finance structure, FWF seeks to ensure alignment among debt and equity investors in the fund; CHANCEN International as the fund manager (CHANCEN International will invest into the equity of the FWF); the partner schools (they will provide a first loss guarantee); and the students (who will be represented through a donor-funded local student association investing into the equity of FWF).

CHANCEN International

**Laboratoria – Tech skills for women from underserved backgrounds in Latin America**

- Offers bootcamps to train disadvantaged young women for careers as software developers and UX designers
- Trained 1,600+ women to date
- Connects graduates directly to potential employers
- Only those graduates who secure jobs in tech pay for the education retroactively through ISAs
- 81% of graduates in 2019 found a job in tech within six months of graduating
- Post-bootcamp salaries increased on average 2.7x in 2019

‹Laboratoria›

# Looking to the future

## A well-aligned opportunity

UBS Optimus Foundation aims to help vulnerable children and young people receive quality education, skills and exposure that will help them to transition into fulfilling employment and break cycles of poverty. Offering low-income students affordable and fair financing models to access quality tertiary education resulting in employment is well aligned. It's a promising opportunity to have an impact that cuts across several SDGs.

Given UBS Optimus Foundation's focus on results-based financing, the ISA model is particularly attractive to us. Impact is embedded in the ISA model. The benefit that students draw from their education is evidenced by their employment outcomes that, in turn, define the amount they ultimately pay for their education. Consequently, the financial returns to investors are driven by the positive employment outcomes of young people.

ISAs are relatively new with a limited track record and unproven financial sustainability, especially in low- and lower-middle-income countries where UBS Optimus Foundation primarily works. Our intention here is to summarize our learnings based on our initial exploration of the ISA model and our current understanding of what an impactful ISA model could look like. Going forward, our aim will be to support building an evidence base for ISA models that provide young people the opportunity to realize their potential and thrive in the future, irrespective of their current circumstances.


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# Appendix

## Select ISA providers in sub-Saharan Africa and Latin America

While this list is non-exhaustive, it should be noted that the number of ISA providers in low- and lower-middle-income countries is limited. Given the lack of data, we concentrated on market players where we either were able to engage or are confident that we have an in-depth understanding of their model.

| ISA provider | |
|---|---|
| Brighter Investment | Brighter Investment operates in Ghana and offers ISAs and complementary mentorship programs to high-performing students. Brighter Investment currently partners with nine education providers. Among the 93 graduates who are repaying their ISAs, only 3% are unemployed one year after graduation. That is 10x lower than the Ghanaian average in the same age group. |
| CHANCEN International | CHANCEN International has financed 1,312 students in Rwanda through ISAs worth USD 1.4 million since July 2018. By launching the Future of Work Fund, CHANCEN International is expanding its ISA offering to education providers in South Africa and Kenya. CHANCEN International's ISA framework has a strong social dimension.<br><br>CHANCEN International aims to accompany the students throughout their education journey, offering additional academic and professional skilling workshops, mentorship and a strong supportive network. |
| Laboratoria | Laboratoria offers underserved women coding bootcamps financed through ISAs and connects them to companies who are hiring. Laboratoria's offering is available in Brazil, Chile, Colombia, Mexico and Peru. To date, Laboratoria has trained over 1,600 young women and placed 78% of them in tech jobs with salaries that, on average, nearly triple their previous incomes. |
| Lumni | Lumni operates in Chile, Colombia, Mexico, Peru and the United States. To date Lumni has financed more than 12,000 students to study with one of 70 education partners. Lumni's services include complementary support and capacity building for students, including relational and cognitive workshops, mentoring and academic monitoring to reduce dropout rates.<br><br>Lumni also works with corporate partners to design and manage education funds that employ its ISA methodology. Projects focus on providing employees with the training they need to advance professionally or supporting access to education opportunities for talented low-income students without other resources. Lumni designs and manages impact investment funds that finance underserved students mostly in high demand careers such as coding, engineering and business. Investors are high net worth individuals, family offices, companies and foundations. Lumni currently manages USD 25 million in AUM. |

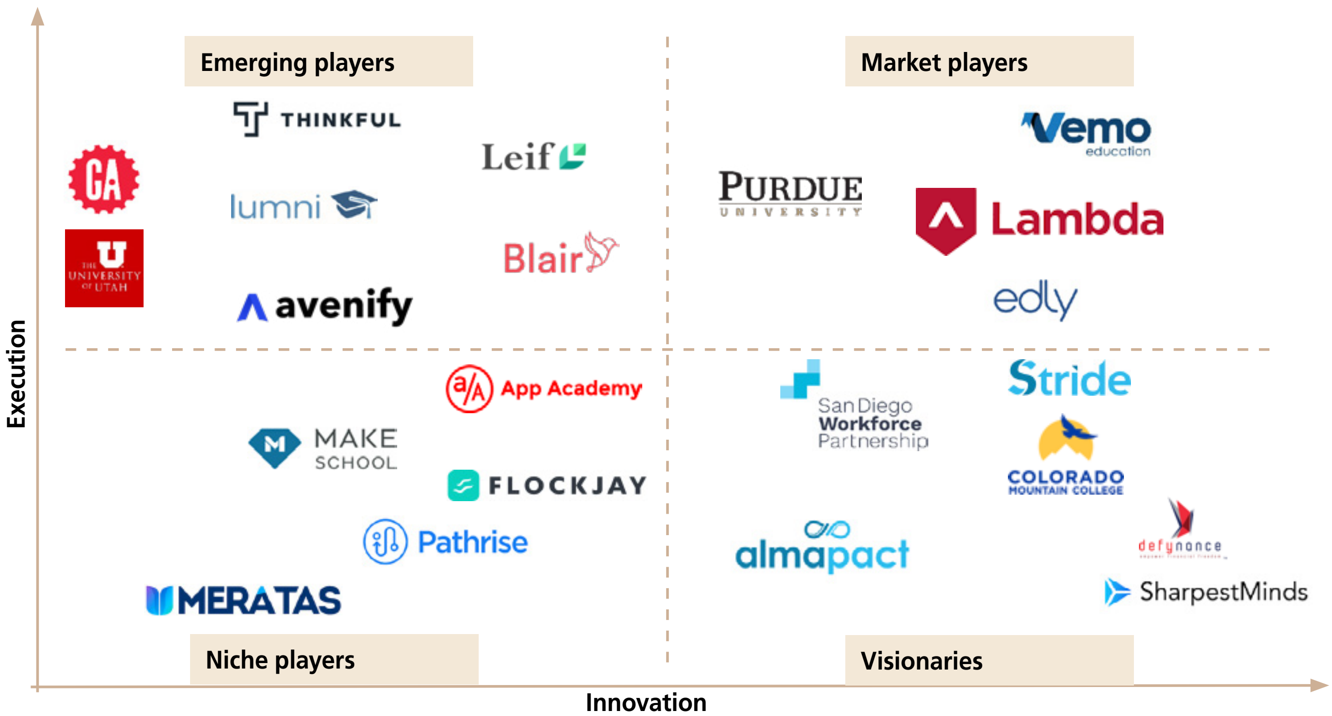
## ISA provider market player overview in the United States

ISAs remain a niche product in the United States. Even with projections that the ISA market grows to USD 500 million this year, that is still a fraction of the USD 10 billion-a-year private debt marketplace and the USD 100 billion-a-year in government-subsidized loans.[7]

Nonetheless, the US market for ISAs is relatively more mature than that of low- and lower-middle-income countries, with a much wider choice of providers for students. It continues to evolve as new providers challenge market leaders and try to gain market share. Both new and established players continue to adapt their business models and drive innovation. While the US track record can certainly help inform the setup of ISA models in low- and lower-middle-income countries, there will be no one-size-fits-all approach. Market-specific particularities of low- and lower-middle-income countries will have to be taken into account by any ISA provider newly entering these markets.

The US players shown below are ranked based on their ability to execute (y-axis) and the level of innovation inherent to their business model (x-axis). Niche players are operating in the industry but have not yet reached the scale to be considered as emerging market players. Others can be considered visionaries with innovative business models but it is yet to be seen to what extent these models can take off and get to scale.

[7] Financial Times (2019), Shares in students: nifty finance or indentured servitude?




Adapted from James Gallagher (2019), State of the Income Share Agreement Market.

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