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Youth Employment and human capital valuation of Nestlé

Public Version

May 2018

Samuel Vionnet

Sustainability Expert

sv@valuingnature.ch

www.valuingnature.ch

CH +41 (0)76 372 90 27

GT +502 5012 3107

Note from Nestlé about this study



Global Youth Initiative

Nestlé launched its Global Youth Initiative in 2017. This sets out to create 10 million opportunities for young people in the next 10 years. This study explores how we might measure the impact of this initiative and calculate the value created by the initiative for Nestlé and also for society.

Whilst there are increasing examples of companies calculating their impact upon society, there are as yet few examples of calculating the business value for the company. This report presents a first attempt.

We are therefore making this report public to raise awareness of the possibilities to measure and value the impact that companies have upon society, and to stimulate debate upon methodologies and data sources. For this public version of the report we have replaced the actual figures with indicative figures. These indicate the same magnitude of value created, but maintain a level of confidentiality of the actual base data. We have done this to concentrate the debate upon the methodology and assumptions.

We particularly welcome scrutiny of the methods and assumptions we have taken in order to strengthen the approach for future iterations.

Christian Frutiger, Head, Public Affairs

Duncan Pollard, Head, Sustainability & Stakeholders Engagement

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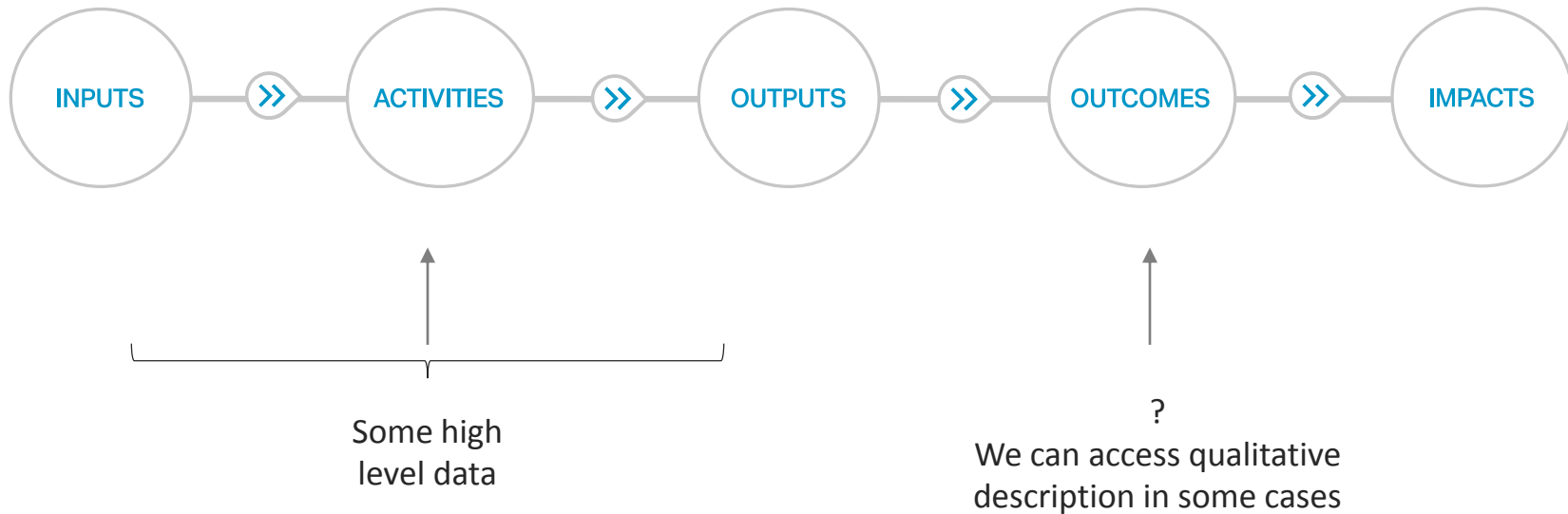
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Objective

Measure the value to Nestlé and to the society of the Global Youth Initiative.

Nestlé impact pathways

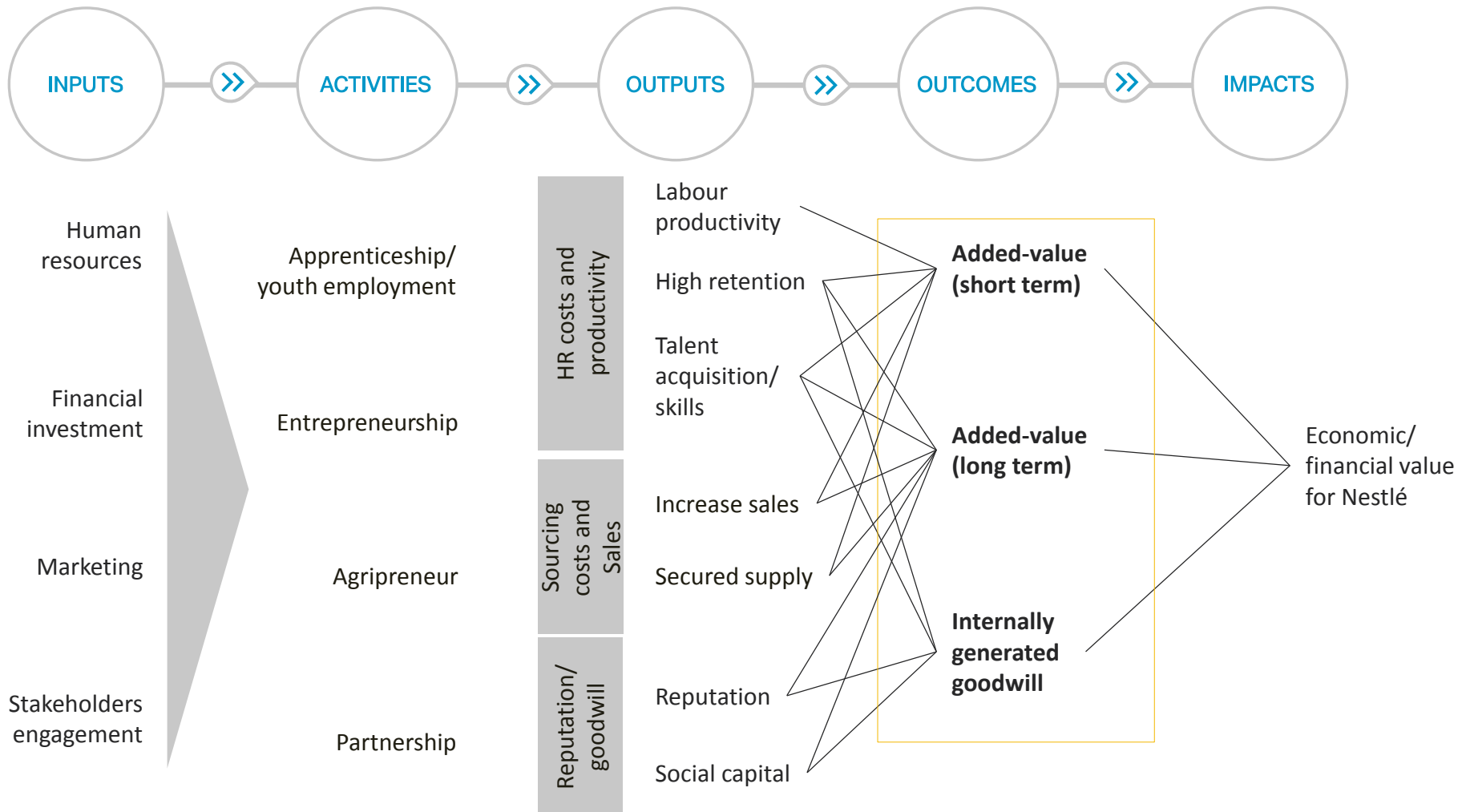
Data situation



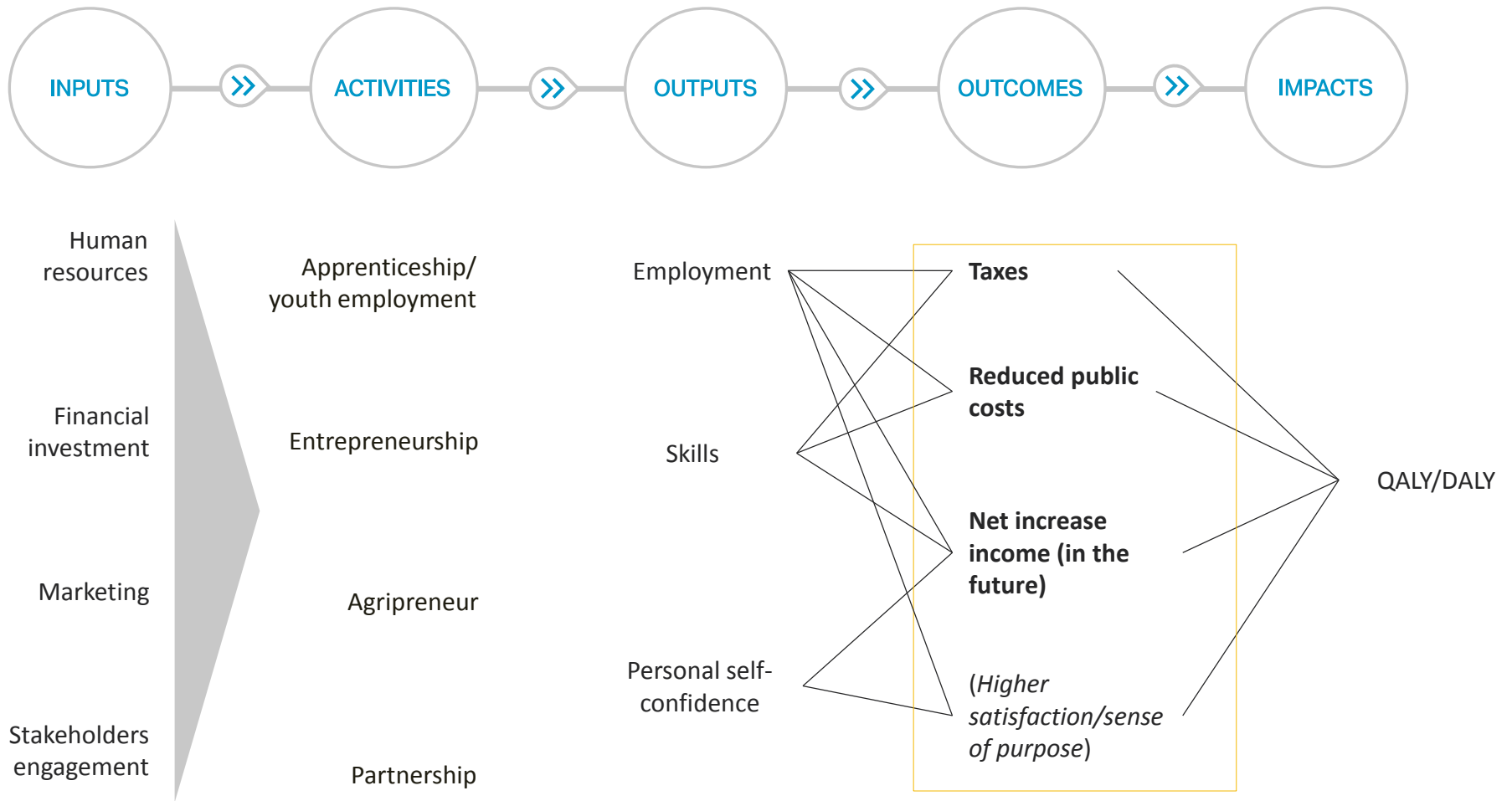
Conclusion:

1. We have to use a lot of assumptions and secondary data
2. We have to improve on the data collection at Nestlé

Impact pathway – Business value



Impact pathway – Societal value



Value for Nestlé - Summary

Data and Methodology

	Description	Data Quality	Methodology
Agripreneur	2% reduced cost over sourcing costs. NPV 5yrs 8%.	Red	Yellow
Farmer Training	Value is 10% of agripreneur, related to training time.	Red	Yellow
Entrepreneur	CHF2000 av sales. OP/sales = 15%. NPV 5Yrs 8%	Yellow	Green
Apprenticeship	Hiring costs ↓ Retention rate ↑ 50% apprentices stay,	Red	Yellow
Traineeship	20% trainees stay. Nestlé productivity ↑. NPV duration of appr/traineeship	Red	Yellow
Employee (fixed)	Not calculated (too sensitive to assess). May be assessed through synergy benefit between more senior and young employees (gain in efficiency).	Yellow	Red
Employee (temp)		Yellow	Red
Reputation	Internally Generated Goodwill* allocated	Red	Red

* Difference between Mkt Cap and Book Value. Net change of position from FY16 to FY17 was accounted for. We assumed 20% is due to Human Capital. GYI is 2.7% of annual report, so we used (20% x 2.7%)

Note: Indicative Values Only

Value for Society - Summary

Data and Methodology

	Description	Data Quality	Methodology
Agripreneur	Income 40% ↑ Tax rate 10%. NPV 20 yrs 8%	Red	Yellow
Farmer Training	10% of agripreneur value.	Red	Yellow
Entrepreneur	CHF 4000 (Nestlé MX data) Tax rate 10%. NPV 5 yrs 8%	Yellow	Green
Apprenticeship	Educational value (Income 9.7%* ↑/yr) with NPV 20 yrs 8% additionally to income over duration of 24 months. Tax rate according to country.	Yellow	Green
Traineeship	Income over duration of 6 months. Internship does not contribute to educational value but decreases by 6 months the time to find a job.	Yellow	Green
Employee (fixed)	Income and 2.32%** additional income due to experience. NPV 5yrs (fixed), 1yr (temp), 8% discount rate. Tax rate according to country.	Yellow	Green
Employee (temp)		Yellow	Green

* Global Average increase per year of education (World Bank). This rate was adapted per region.

** two times the global inflation rate.

Note: Indicative Values Only

Model selected details and results

Agripreneurs – Value to society and Nestlé's value

Human capital = Net increase income



- 40% net increase income (based on a couple of case studies)
- Net income (taxes deducted)

Nestlé value = Benefit (reduced sourcing costs) – Costs (training/coaching costs)



- Costs reduction might includes reduced turnover, less product rejection, lower cost of transaction, etc)
- Costs reduction is estimated at 2% of average sourcing cost per farmer (based on COGS and farmers' number) based on twice the average sourcing volume cost (due to productivity gain)
- Cost of training/coaching is estimated at 5 days of training, at 30CHF/h of training.
- Additional costs should be considered (e.g. material and other support, overhead, etc)

Apprentices – Value to society

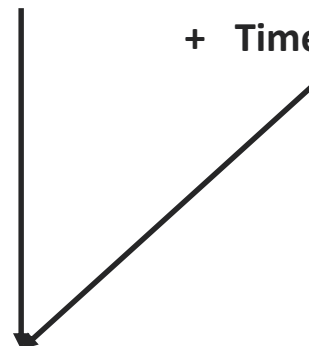
Human capital = Income (short term)



- 50% of country's median income (duration 2 years)
 - Average income of the 40% poorest (Q1/Q2)
- Net income (taxes deducted)
- Occupation rate (50%)
- Accounting only for the share of unemployed youth (the others would get a similar position)

+ Education benefit (long term)

+ Time to employment



- Education value: applies to apprenticeship and not to traineeship/internship
 - Net increase income (ranges from 7-10% per year of education) in the future
 - 20 years net present value/8% discount rate
- Time to employment: applies only to traineeship/internship
 - Reduction of time to find a job (less unemployment period): 6 months
- Income accounted for is the average of the 40% the poorest (average Q1/Q2)
- Net income (taxes deducted)

Apprentices – Value to society

CALCULATION EXAMPLE

EXAMPLE - Human capital for apprentices, for Italy, in CHF (in real CHF and not DALYs):

Italy has an average low income of 16'940 CHF/capita (average Q1 and Q2), leading to an average income for apprentice of 8'470 CHF/capita (estimated at half the low income). Youth unemployment is 36.6% and benefit from schooling is equivalent to 10% additional income per year of school. Average tax rate is 32%. Average duration of an apprenticeship is 2 years and they work at 50% at Nestlé. The calculation of human capital value is:

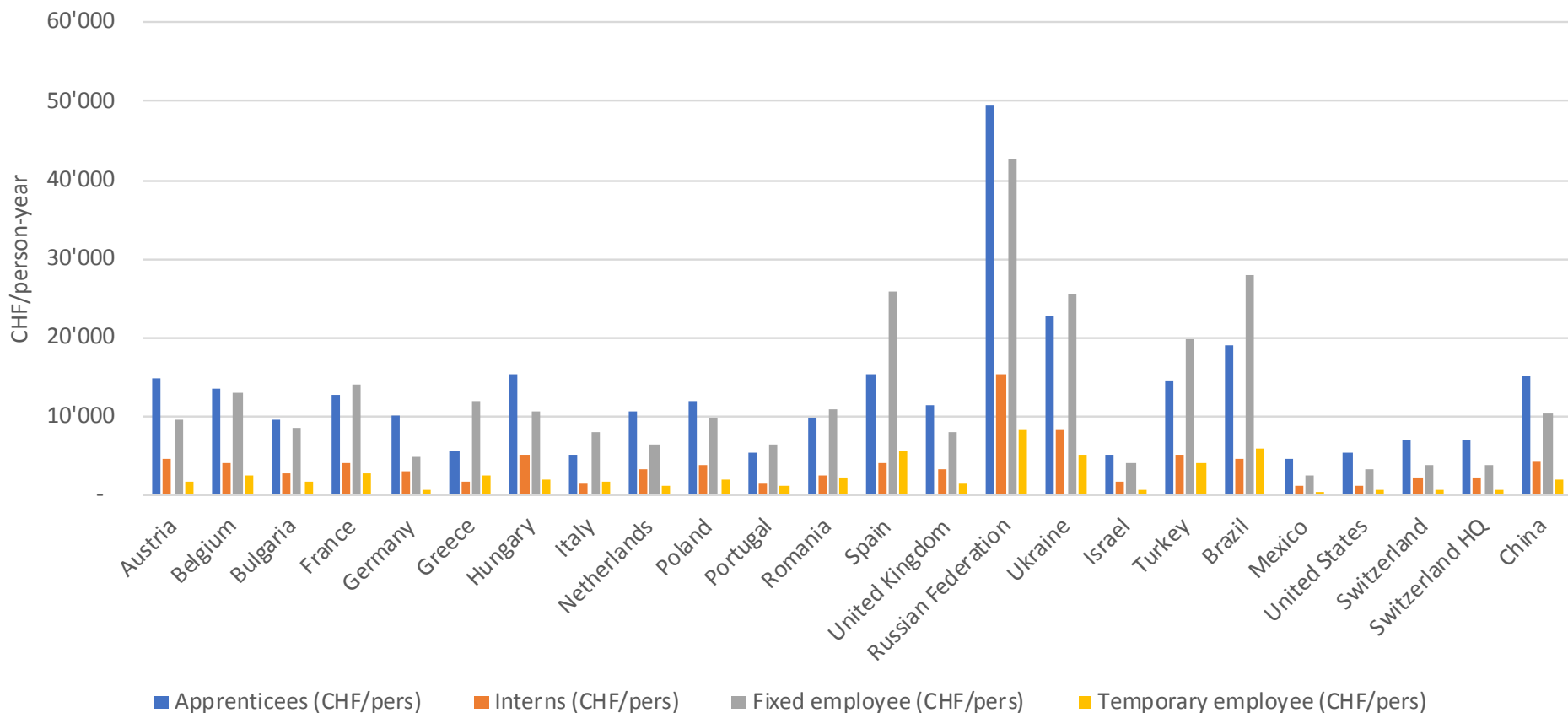
Income component: $8'470 * (100-32\% \text{ "tax rate"}) * 36.6\% \text{ "unemployment"} * 2 \text{ years "duration"} * 50\% \text{ "occupation ratio"} = 2'108 \text{ USD}$

Education component: $30'613 * (100-32\% \text{ "tax rate"}) * 10\% \text{ "value of education"} * 2 \text{ years "duration"} * 50\% \text{ "occupation ratio"} * 10.6 \text{ "NPV ratio"} = 22'065 \text{ USD}$

Total human capital value = $2'108 + 22'065 = 24'173 \text{ USD}$

Human capital – Results summary

Results based on impact (DALYs)



Note: Indicative Values Only

Human capital – Why Mexico is as low as the USA, and lower than Brazil?

Results based on impact (DALYs)

Youth unemployment is the lowest in Mexico (7.3% compared to 29.9% in Brazil and 10% in the US, based on the World Bank statistics)

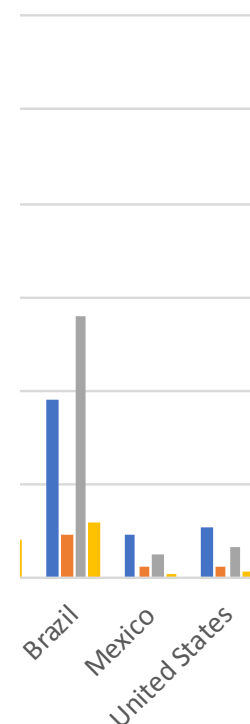
Average low income is the lowest in Mexico (3'220 USD/capita per year compared to 3'267 in Brazil and 19'897 in the USA).

Education value is lower in Mexico and Brazil (9.2% than in the US, at 10%).

Taxation rate is the lowest in Brazil (21% compared to 35% in Mexico and 54% in the US). The higher the rate, the lower the human capital value.

Health utility of income is average in Mexico (at 1.16 compared to 3.19 in Brazil and 0.27 in the USA). HUI is a multiplication factor to the income received that translate it into a utility of well-being and health (expressed in DALY/CHF or CHF/CHF).

In conclusion: Mexico has a low human capital value due to an overall low income level, low youth unemployment and relatively low health utility of income.



Apprentices – Value to Nestlé

Indicative Values Only

$$\text{Value to Nestlé} = \text{Benefit (reduced hiring costs + tenure benefit + productivity)} - \text{Costs (hiring costs + coaching + salary)}$$

- Hiring costs avoided: 6'000 CHF/apprentice or trainee/intern (adjusted using PPP values, country of reference used is CH)
- Tenure: 3x longer for 50% of apprentices (retention rate) = 6'000 CHF
- Productivity: break-even calculation or replacement cost method
 - Hiring costs: 2'000 CHF/apprentice and 3'000 CHF for trainees/interns.
 - Coaching: 17.5% of the time of a standard employee (country's median income)
 - Salary: 50% of country's low income, average of 40% poorest income. Average duration of 2 years.

Reputation accounted for separately (based on IGG) and **synergy** not accounted for at the moment (synergy between young employees and older ones focusing on higher value tasks thanks to the formers)



Nestlé Value – Apprenticeship / Switzerland

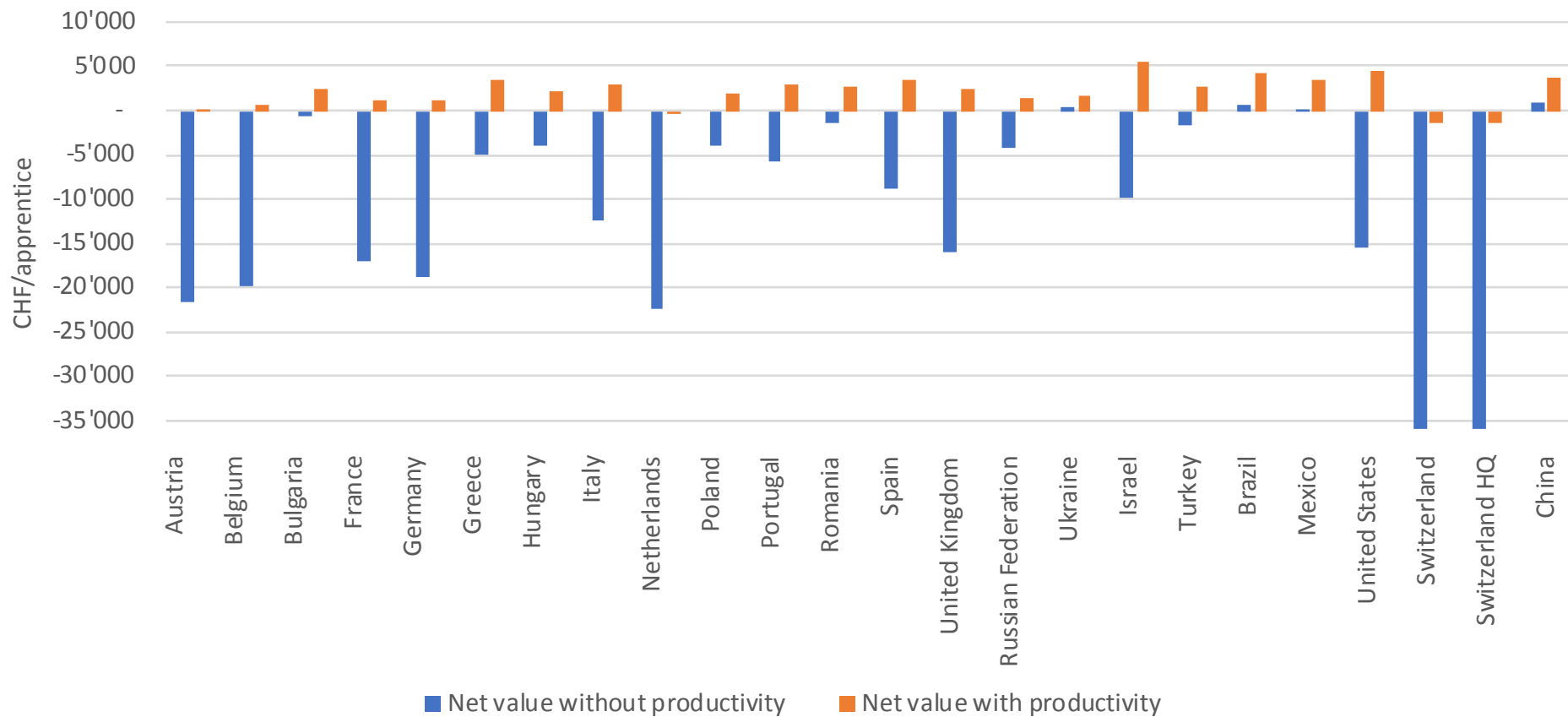
$$\text{Value to Nestlé} = \text{Benefit (reduced hiring costs + tenure benefit + productivity)} - \text{Costs (hiring costs + coaching + income)}$$

	Countries model		With primary data	
	Benefit	Costs	Benefit	Costs
Hiring costs	6'000	(2'000)	6'000	(2'000)
Tenure	6'000	-	6'000	-
Productivity (replacement cost method)	30'000	-	66'000	-
Coaching	-	(22'000)	-	(46'000)
Salary	-	(20'000)	-	(36'000)
Reputation	4'000	-	4'000	-
Synergies	?	-	?	-
	46'000	(44'000)	82'000	(84'000)
	Net value for Nestlé = 2'000 CHF		Net value for Nestlé = -2'000 CHF	

Note: Indicative Values Only

Nestlé Value – Apprenticeship

(replacement cost method for productivity. Excluding reputation)



Note: Indicative Values Only

Overall results

Overall results

Costs & Values are in CHF Mn			Value to Nestlé		Value to Society	
	Output	Costs	Operating Profit Equiv.	Reputation Value	Human Capital	Social Capital
<u>Agripreneurs</u>	#4'500	5	2	-	170	20
Farmer Training	4.8m hours	7	10	-	70	-
Entrepreneurs	#19'900	3	15	-	270	30
Apprenticeships	#5'510	70	80	20	90	40
Traineeships	#6'157	40	60	22	25	10
Employees fixed	#22'826	-	-	90	240	130
Employees Temp	"7'208	-	-	30	20	8
TOTAL	-	122	167	162	885	238

Note: Indicative Values Only

Discussion points

Data/Methodology development

- The methodology addressing societal value is more mature than the one addressing Nestlé value.
- For the value to Nestlé, the **reputational value is the biggest challenge to address**. It is currently based on the internally generated goodwill value, allocated roughly to the youth initiative. This allocation is challenging and might be avoided if a bottom-up model can be put in place, addressing identified and specific impact pathways arising from the youth initiative.
- The **value of young employees** remains also a challenge to be addressed. It is currently not quantified, but it is expected that young employees allows to create a synergy with more senior employees by the task distribution optimization. Young employees allow more senior ones to be more efficient.
- Beyond a few other smaller methodological challenges, **the biggest gap remains the access to data** for all activities. The quantification of outputs (e.g. nb of agripreneurs, nb of apprentices, etc) is a useful information, but does not allow to quantify the value (outcome or impact) of such output. **An important effort of data collection** is required from Nestlé to support this type of methodological approach in the future.

Data/Methodology development

Note on agripreneurs

- The current valuation method (Nestlé value) is based on short term changes to costs of purchasing. However, collecting data on those aspects is very challenging, as well as understanding the causation
- An alternative valuation discussed could consider the long term value of agripreneurs and farmers training. This long term value translates into business continuity and risk avoidance.
- In order to quantify it, specific case studies need to be assessed (specific to commodity, location, farms size, etc). Stories and existing knowledge need to be leveraged, with qualitative and quantitative data whenever possible. Analysing past events will be a source of data too.
- The reputational side of it needs to be accounted for as well, as investing in agripreneurs/farmers training is a form of insurance policy.
- Further developments will be needed to develop this methodology, combining the knowledge of Nestlé with the latest developments in impact valuation.

Key data priorities

Below is a high level prioritization of key data to collect at short term to improve the model, based on what I think is feasible and available. Further detailed data could be collected at longer term and requirement more resources.

- **Agripreneurs:** risk avoidance and business disruptions stories (but also license to operate, avoided investment costs, etc), for specific context and supply chains. Comparison with business as usual cases can be done as well (what happened to other companies/supply chains).
- **Farmers' training:** data or stories on conditions improvements of farmers linked to the training provided. More detail on farmers reached, topic and length of training.
- **Entrepreneurs:** business models descriptions and performance results (sales, costs, profit and its distribution, etc) would be required, as for the case of Nescafé Mexico.
- **Apprentices, trainees, inters:** real salaries data, productivity assessment and other HR costs (hiring costs). Stories on how this activity helped the reputation of Nestlé (business environment, license to operate, advantages provided by the government, etc).
- **Young employees:** real salaries data, productivity measures and synergies with more senior employees.

Insights (1)

- Investments prioritization and target setting for the youth initiative.
 - The results per country for the apprenticeships/internships and young employees shows great variabilities. Higher societal and Nestlé value can be obtained for positions in poorer countries, countries with higher youth unemployment rates, and countries with higher inequalities. **I recommend to consider using this insight to prioritize the activities/investments of the youth initiative.**
- Optimise projects and activities
 - Key drivers to the value for the society and for Nestlé were identified (e.g. retention, productivity, hiring costs, income, etc) and those can be prioritized and optimized to deliver higher value, both for Nestlé and the society. For instance, hiring costs of interns/trainees is relatively high and could be lowered by partnerships with universities or engagement events (on social media or in real events). Another example is the coaching that is required which can be optimized by creating an online academy which lower the cost per apprentice/trainee instead of repeating the same training with employees. This would also increase the educational benefit of such positions.

Insights (2)

- Measuring shared value and reaching net positive impact
 - The youth initiative needs to be considered within the overall activities of Nestlé and its created shared value. The impact valuation results help understand the contribution of the youth initiative to the overall impact of Nestlé, and how its (social) ROI compares to other investments of Nestlé. It can potentially support strategic priorities and budget allocation.
- Communicate impact at corporate or brand level
 - Communication to and understanding of external stakeholders is crucial to maintain the reputation of Nestlé and to improve its business environment. Impact valuation results is based on a relatively recently developed method/approach and has not been communicated often by the private sector, although cases of external communication are rapidly increasing (LafargeHolcim, Kering, BASF, Samsung, Novartis, etc).
 - Traditional reporting will integrate more and more impact valuation results as they are relatively easy to understand for non-experts (monetary units), although this reporting is not mainstream and further developments are required.
 - Using impact valuation for communication to KOL, sustainability experts, BtoB or even brand marketing can be done using a combined storytelling narrative and key figures from the impact valuation results. Further explorations on how to leverage those results to engage with external stakeholders would be required.