

CAPCO

JOURNAL

The Capco Institute Journal of Financial Transformation

Value dynamics

Disruptive forces reshaping
financial services

Structural challenges

Shared value in cocoa farming:
Value for whom? And who
gets the lion's share?

John Dumay

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The Capco Institute Journal of Financial Transformation

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2025, Edition 61

JOURNAL

Value dynamics

Welcome to the 61st edition of the Journal of Financial Transformation.

I am delighted to announce our new partnership with King's College London, a world-renowned leader in education and research, marking a new chapter in the Journal's long and distinguished history.

In this edition focusing on Value Dynamics, we explore a critical – and ever more pressing – challenge: how institutions across financial services create, distribute and sustain value.

As Professor Crawford Spence, our editor from King's College highlights in his own introduction, the forces shaping value dynamics across financial services are myriad, encompassing technological transformations, secular shifts, political and social structures.

As a firm that has been at the cutting edge of innovation for over 25 years, these value drivers intersect directly with the work Capco does every day, helping our clients around the globe transform their businesses for sustained growth.

The integration of innovative new technologies including generative and agentic AI models, the digitalization of currencies and payments infrastructures, the reimagining of customer experiences, the relentless evolution of market ecosystems, the vital role of culture as a value driver: these imperatives are where we see – first-hand – clear opportunities for our clients' future growth, competitive differentiation and success.

We are excited to share the perspectives and insights of many distinguished contributors drawn from across academia and the financial services industry, in addition to showcasing the practical experiences from Capco's industry, consulting, and technology SMEs.

It is an immense source of pride that Capco continues to champion a creative and entrepreneurial culture, one that draws on the deep domain and capability expertise of thousands of talented individuals around the world.

We do not take our hard-earned status as a trusted advisor lightly, nor our responsibility to make a genuine difference for our clients and customers every single day – placing excellence and integrity at the forefront of everything we do.

I hope the articles in this edition help guide your own organization's journey as you navigate the many complexities and opportunities ahead.

As ever, my greatest thanks and appreciation to our contributors, readers, clients, and teams.



A handwritten signature in black ink that reads "Annie Rowland". The signature is fluid and cursive, with a long, sweeping underline that extends to the right.

Annie Rowland, Capco CEO

2025, Edition 61

Editor's note



**KING'S
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This 61st edition of the Journal of Financial Transformation is the first with a new editorial team in place, and is the product of a formalized collaboration between Capco and King's College London. This collaboration – a leading financial services consultancy and a prestigious academic institution – embodies the Journal's ethos: a balance between academic rigor and practical accessibility.

Traditional academic journals often deal with more prosaic conceptual matters. Even when they focus on more practical concerns, the timelines and mechanics of double-blind peer review processes can mean that the insights that they offer risk being out of date by the time they are published. Conversely, traditional op-ed articles in the financial press are all too often heavy on opinion and pre-conceived ideas and can lack the heft that comes with thoroughly researched pieces of work.

The Journal we've published strikes a vital balance between these two approaches.

This edition has an overarching focus of Value Dynamics. Specifically, the various articles look at how value is created, distributed and sustained across financial services. In turn, the submissions are grouped into three broad themes.

Technological transformations are explored in terms of how these can bolster or hinder value dynamics if not managed effectively. A number of secular shifts are also discussed – these being long-term changes that are impacting value dynamics in the sector. Finally, structural challenges are highlighted that emphasize the importance of sticky, tricky social and behavioral issues that surround the execution of financial services.

Overall, these themes highlight challenges and opportunities in the sector and encourage us to think differently.

It has been a pleasure working on this issue with such a fantastic and diverse array of different contributors.

A handwritten signature in black ink, appearing to read "C. W. Spence".

Professor Crawford Spence

King's College London

Shared value in cocoa farming:

Value for whom? And who gets the lion's share?

Author | **John Dumay** | Professor of Accounting, Macquarie University, Australia

Abstract

Shared value is an economic and business strategy that advocates helping poor farmers increase productivity, leading to higher incomes. I examine Nestlé's shared value ambitions in the cocoa supply chain, mainly in Côte d'Ivoire and Ghana, through Nestlé's Cocoa Plan and Income Accelerator Program. Unfortunately, after almost two decades of implementing shared value, few cocoa farmers earn a living income and productivity has not significantly increased. In 2024, cocoa yields decreased due to climate change, plant disease, aging farms, and the Ivorian governments' resistance to planting higher-yielding cocoa trees. Cocoa farmers are also powerless to determine prices because they receive farmgate prices set by their governments that are less than world market prices. In the good times, when harvest productivity is higher, cocoa supplies for Nestlé are locked in at traditionally lower prices. However, if the harvest is down, farmgate and world prices increase, but Nestlé transfers the supply risk to the farmer because Nestlé does not pay farmers for the cocoa they can't harvest. As cocoa prices increase, so do retail prices, but chocolate demand is inelastic, causing sales dollars to increase and volumes to decline, which can still increase Nestlé's profit. Cocoa traders and speculators profit from the increased and wildly fluctuating cocoa prices. Ultimately, Nestlé, other chocolate manufacturers, traders, and speculators keep the lion's share of the profits, while most farmers still do not earn a living income. Ironically, producers can subsidize traders and companies if they can't supply their contracted quantities because of lower production due to climate change and diseases, which results in lower cocoa production.

1. Introduction

The market is tense. The industry is tense. Cocoa prices are still high, although coming down slightly from the peaks of 2024. The sector mainly worries about weakened demand, limited cash flow, and weather conditions in West Africa [Myers (2025)].

If there is one economic sector going through "transformation in disruptive times," it is the chocolate industry. Cocoa prices hit record highs of over \$12,000 a metric ton in 2024 and were about \$8900 in May 2025 [Trading Economics (2025)]. However, productivity and farmer incomes are falling in the two main cocoa-producing countries, Côte d'Ivoire and Ghana, with climate change, crop diseases, and aging cocoa trees all taking their toll.

To complicate matters, the world's largest importer of cocoa, the E.U., is introducing deforestation and due diligence legislation to protect native forests and human rights, and it is unclear how these new regulations will impact farming communities. The impact of E.U. legislation is compounding the situation, where African government regulation is hampering some farmers because they do not allow the chocolate companies to assist them. Therefore, farmers with aging farms and disease cannot renovate or replant their farms with healthier, more productive trees. Unsurprisingly, many smallholder farmers are leaving the industry. Hence, in the future, it is likely to be more difficult to meet the demand for cocoa that goes into the chocolate we all know and love [Myers (2025)].

Chocolate's main ingredient is cocoa. Most of our chocolate comes from cocoa beans grown in two West African countries, Côte d'Ivoire and Ghana. Farmers harvest the beans from the fruit pods of the cacao tree. Typically, the farms are small, between two and five hectares, yielding less than 500 kg of beans per hectare [Suh and Molua (2022)].

Farm workers, often the farmer's children, break open the pods, exposing the white cocoa beans inside a sticky, sweet pulp called the placenta. The beans and pulp are then placed on banana leaves on the ground and left to ferment for about a week, allowing natural enzymes to transform them into dark cacao beans that develop characteristic chocolate flavors and aromas. After fermentation, farmers dry the beans in the sun before packing them into sacks for transport to sell to local cooperatives at a farmgate price set by the Ivorian and Ghana governments.

The cooperatives clean and quality-check the beans before selling some to local processing plants that grind them into cocoa butter, liquor, or powder. However, the cooperatives send most



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Myers (2025)

of the harvest directly to a local port for export based on set prices. In the case of Côte d'Ivoire, the government sets export prices based on forward contracts; in Ghana, market prices prevail [Smith and Morawiecki (2024)].

Processors and cocoa companies in both countries do not add much value to the beans. Rather, the world's major processors and manufacturers are responsible for most of the value added to the cocoa supply chain [FAO and BASIC (2022)]. Typically, farmers get about 11% of the price of a chocolate bar, while local exporters and processors share another 13%. Next, the international manufacturers and retailers share 37% each. Unfortunately, profits for farmers are almost nonexistent, so they barely survive [Ferdjani (2024)]. Most do not earn a living income and many live in poverty [Perkiss et al. (2021)].

Local exporters and processors do make some profit and pay some taxes. However, this pales compared to the profits made by international manufacturers, retailers and traders and the taxes they pay their respective governments. Thus, international companies and governments make significantly more money from cocoa than the people and countries that produce the

raw materials for your beloved chocolate bar. In this article, I explore what contributes to the imbalance in the “shared value” business model [Nestlé (2007); Porter and Kramer (2011); Nestlé (2023a)]. However, the shared value business model is not immune to the impacts of climate change and reduced cocoa supply, causing an increase in cocoa prices.

I reveal how increasing cocoa prices impact manufacturers’ production costs, demand and profitability. The high prices and volatility mean the once-stable commodity is now open to speculation [Nudelman (2025)]. The instability increases risks to market players, so they seek to transfer that risk to other parts of the supply chain, usually to the poor farmer who has very little say in the price of cocoa. Hence, large companies and speculators still profit at the expense of farmers and producing countries. Ironically, speculators who never own cocoa can profit from trading in cocoa. It is also ironic that cocoa producers like Ghana are becoming poorer because they can’t supply the contracted volumes and continue to receive lower prices until they do.

2. Shared value in Nestlé’s cocoa supply chain

In this section, I focus on the shared value business model and the financial implications for companies like Nestlé, farmers, traders, speculators, and the supply chain. I chose Nestlé as an example because, since 2006, Porter and Kramer (2006; 2011; 2019) have cited Nestlé as one of the early adopters of the shared value model. Nestlé is wedded to the shared value business model as evidenced by its sustainability reports, which are called shared value reports [for example, Nestlé (2007, 2011, 2023a)]. At the heart of the shared value business model in the cocoa supply chain is the Nestlé Cocoa Plan, established in 2009. This plan applied to about 85.5% of the

cocoa Nestlé sourced in 2024, but the goal is for the plan to cover 100% of their stocks by the end of 2025 [Nestlé (2025)]. Other companies have similar sourcing business models, such as Mondelēz’s (Cadbury’s) Cocoa Life.

According to Porter and Kramer (2006), “The mutual dependence of corporations and society implies that both business and social policies must follow the principle of shared value. That is, choices must benefit both sides.” Nestlé was an early adopter of shared value in the cocoa industry, articulating that it is more than just a business model. It is a way of doing business that impacts the entire community in the countries in which it works.

“For a business to be successful in the long term it has to create value, not only for its shareholders but also for society. We call this Creating Shared Value. It is not philanthropy or an add-on, but a fundamental part of our business strategy. Simply stated, in order to create value for our shareholders and our Company, we need to create value for the people in the countries where we are present. This includes the farmers who supply us, our employees, our consumers and the communities where we operate” [Nestlé (2007)].

Under the Nestlé Cocoa Plan, supporting communities translates into helping farmers increase productivity, restoring destroyed rainforests, planting shade trees to protect cocoa trees, helping children attend school, developing other agricultural activities to bring in additional income, and addressing child labor through their Child Labor Monitoring and Remediation System (CLMRS) [Nestlé (2025)]. The list is not comprehensive, but central to the success of the Nestlé Cocoa Plan and the shared value business model is increased productivity to help boost the farmer’s income and do good for the community.

Table 1: Shared value – cocoa productivity claims made by Nestlé and Porter and Kramer (2011, 2019)

Shared value aspirations	Source
Nestlé is also funding a three-year sustainable cocoa project with three cooperatives of about 3000 farmers in Côte d'Ivoire. This scheme [...] aims to improve cocoa farmers' incomes, protect the environment, combat child labour, improve school attendance and increase HIV awareness.	Nestlé (2007, pp. 32-3)
Our new R&D Centre in Abidjan, Côte d'Ivoire, will provide farmers with 1 million high potential cocoa trees each year from 2012.	Nestlé (2009, p. 19)
50-200% more cocoa (up to 1500 kg of cocoa beans per hectare) from trees typically provided through The Cocoa Plan.	Nestlé (2010, p. 27)
Our R&D Centres in Abidjan, Côte d'Ivoire and Tours, France, work with other research institutes around the world to propagate higher-yielding, disease-tolerant cocoa plantlets. The trees can produce typically 50%-200% more cocoa (up to 1500 kg of cocoa beans per hectare).	Nestlé (2011, p. 129)
Early studies of cocoa farmers in the Côte d'Ivoire, for instance, suggest that while fair trade can increase farmers' incomes by 10% to 20%, shared value investments can raise their incomes by more than 300%. Initial investment and time may be required to implement new procurement practices and develop the supporting cluster, but the return will be greater economic value and broader strategic benefits for all participants.	Porter and Kramer (2011, p. 65; 2019, p. 326)

Both Porter and Kramer (2011; 2019) and Nestlé articulate the need for increased productivity and originally projected some astonishing targets for what is possible. Table I lists examples of these claims.

As evidenced in Table 1, the key to increasing farmer incomes is to increase the size of the pie by growing more cocoa, not by giving away more of the pie and not by paying farmers more for their cocoa. As Porter and Kramer (2011, p. 65; 2019, p. 326) argue, giving the farmers more money for their cocoa through certification programs such as Fair Trade and Rainforest Alliance is not an option because it has a limited impact on incomes. However, some companies, such as Tony's Chocolonely (2024), have already implemented a business model that supplements farmers with a living wage for all their cocoa purchases. Thus, a business model that allocates

more of the pie to farmers is possible and a real option that other companies could exercise now [BSF (2024)]. However, Tony's business model is not yet profitable as they reported an operating loss for the financial year 2024 (September) of 2.9 million, after record increase in sales of 33%. Thus, paying more for ethically produced chocolate increases sales but diminishes Tony's slice of the pie [Reul (2025)].

Moreover, simple supply and demand economics tells us that increasing the size of the pie without a corresponding increase in demand will cause an oversupply and falling prices. History has shown that cocoa prices are highly volatile and experience extreme drops when there is an oversupply, as evidenced in 2012 [ICCO (2012)] and 2018 [Green America (2018)]. Therefore, without a corresponding increase in demand,

Table 2: Nestlé's Cocoa Plan farmer productivity from 2020 to 2022 for Côte d'Ivoire, Ghana, Brazil, Ecuador, and Mexico (kg/ha)

Year	Côte d'Ivoire	Ghana	Brazil	Ecuador	Mexico
2020	620				
2021	635	464			
2022	541	412			
2023	594	444	860	698	289

Source: Nestlé (2020; 2021; 2022; 2023b)

farmers will be poorer, not wealthier [Green America (2018)]. That said, paying more for cocoa might entice farmers to grow more, causing another oversupply that will eventually force prices back to the traditionally low equilibrium [ICCO (2012)].

Regardless of the economics of paying more versus producing more, a crucial test of the shared value business model is whether the promised increased yields are possible. Unfortunately, according to data from Nestlé, the productivity increase has not happened. Nestlé (2019, p. 6) states, "The average farmer is a male 46-year-old, with one plot of 3 hectares, and with a yield of 578 kg/ha. He has been in a sustainability programme for four years." Table II shows the low farming productivity figures for Nestlé's Cocoa Plan farmers from 2020 to 2022 in Côte d'Ivoire, Ghana, Brazil, Ecuador, and Mexico.

Increased productivity is at the heart of Nestlé's shared value, accomplished by planting higher-yielding trees. However, Nestlé (2019) reports in Côte d'Ivoire that the government does not allow companies to distribute more productive plants.

The food giant Cargill, a key supplier of cocoa to Nestlé, echoed the same problem in 2021. According to Taal et al. (2021):

"Swollen shoot [virus] and plantation age should trigger the planned renovation of cocoa plantations to avoid net income declining beyond a point of no return. 29% of Cargill's farmers in 2020 have plantations of which the average age is higher than 25 years. Swollen shoot[s] and plantation age are both critical triggers for renovation, but renovation should be approached differently in both cases in order to be effective. The CCC [Conseil du Café-Cacao]¹ currently prohibits companies like Cargill from supporting farmers with renovation."

Therefore, in Côte d'Ivoire, Nestlé can not help farmers renovate their farms for the future because the Ivorian regulators do not allow it. Consequently, Nestlé's promise of shared value is doomed to fail in Côte d'Ivoire since planting more productive cocoa trees is prohibited. I suspect that mass planting cocoa trees with a vastly increased yield scares the Ivorian Government because oversupply through massive productivity

¹ In Côte d'Ivoire, CCC stands for the Conseil du Café-Cacao (Coffee and Cocoa Council). This organization is responsible for regulating and overseeing the coffee and cocoa sectors in the country.

increases will lead to a collapse in the cocoa price. In turn, that would lead to poorer farmers and unhappy constituents who could threaten the government's grip on power.

However, what is much worse is that other countries like Ghana, where planting better cocoa trees is not prohibited, have also not seen yields of 1500 kg/ha as promised under the Nestlé Cocoa Plan. Thus, farmers are not getting the extra income from extra forecast productivity as Porter, Kramer, and Nestlé have promised. And if it did, it is unlikely that prices would be the same – supply and demand economics says that prices and farmer income will likely be lower.

So, if in Côte d'Ivoire, the premise of the Cocoa Plan is banned and Nestlé is not delivering the promised outcomes to the other farmers, why is Nestlé persisting? The answer is that the ultimate goal of the Cocoa Plan is not only to “improve productivity and incomes” for the farmers but to “make agriculture more attractive and secure long-term supplies” [Nestlé (2018), p. 36]. Hence, while productivity is not increasing as planned, Nestlé is still working to make a life devoted to agriculture more attractive while securing long-term supplies, albeit at lower prices.

The main initiative Nestlé relies on to make farming more attractive is its Income Accelerator Program [Nestlé (2024b)]. In line with shared value principles, the Income Accelerator Program aims “to close the gap to a living income and

reduce child labor risks by encouraging changes in behavior and rewarding positive practices – both within the home and on the farm” [Nestlé (2024b)]. The Income Accelerator Program is now central to Nestlé's shared value ambitions.

Initiated in 2020, with a pilot involving 1000 families in Côte d'Ivoire, the program had, by 2024, recruited 10,000 families. Nestlé aims to involve more than 160,000 farming families in the program in Côte d'Ivoire and Ghana by the end

of 2030 [Nestlé (2024b)]. Because the Ivorian government is preventing Nestlé from planting more productive cocoa trees, it is resorting to training farmers and developing agroforestry practices to increase productivity [Nestlé (2024b)]. The focus on these solutions impacts productivity, with the 2023 participants producing an average of 730 kg/ha and up

to 21% of farms producing more than 1000 kg/ha. However, this figure is far from Porter and Kramer's (2011; 2019) forecast of 1500 kg/ha. While Porter and Kramer (2011; 2019) admit that “investment and time may be required to implement new procurement practices and develop the supporting cluster,” it is worth highlighting that nearly two decades have passed since Nestlé began investing in its shared value business model. So, how much time do they need?

Unfortunately, countering these slight gains in productivity, the Cocoa Swollen Shoot Virus is devastating farms. Farmers are also clearing significantly less land to grow more cocoa because of deforestation concerns, and some



Farmers are not getting the extra income from extra forecast productivity as Porter, Kramer, and Nestlé have promised. And if it did, it is unlikely that prices would be the same – supply and demand economics says that prices and farmer income will likely be lower.

farms are replacing cocoa with coffee, rubber, or palm oil crops [Habraken et al. (2024), pp. 55-6]. Additionally, climate change has significantly reduced productivity. In 2024, Côte d'Ivoire produced approximately 1.76 million metric tons of cocoa in the 2023/2024 season, a 24% decrease from the 2.3 million metric tons produced in 2022/2023 [U.S. Department of Agriculture (2025)]. It is highly unlikely that farmers participating in the Nestlé Cocoa Plan and Income Accelerator Program would have escaped similar declines.

Despite some of these underwhelming statistics, the Income Accelerator Program was having some positive impact on farmers' income and future. For example, Nestlé (2024b) reported an overall increase in farmer income of 38% based on bonuses paid for school enrollment, good agricultural practices, agroforestry activities, diversified incomes, and increased productivity. Unfortunately, this increase only translated into 10% of those farmers earning a living income, which is ironic since not all 21% of the farms producing more than 1000 kg/ha could secure a living income. The results also demonstrate that Porter and Kramer's (2011; 2019) forecast of a 300% increase in income would not be possible even if farmers could harvest 1500 kg/ha.

3. Financial implications of shared value

Nestlé continues with the Income Accelerator Program and the Cocoa Plan because they help improve productivity and supply and contribute to the overarching outcome of securing long-term supplies at traditionally lower prices. By enrolling farmers in the Cocoa Plan and then the Income Accelerator Program, they lock the farmers in the Nestlé cocoa supply chain and their cocoa harvests are also locked in. Coupled with income based on a farmgate price set by the Ivorian government, farmers have little power to raise

prices, and if productivity falls, they just don't get paid. In the good times, when harvest productivity is higher, cocoa supplies for Nestlé are locked in at the farmgate price. But if the harvest is down, Nestlé transfers downside the risk to the farmer – Nestlé does not pay farmers for the cocoa they can't harvest.

Unfortunately, in 2024, farmers bore the brunt of a lower harvest. Due to supply shortages caused by poor harvests blamed on climate change impacts, the price of cocoa hit record highs in 2024, and the farmers received an increase of 50% in the farmgate price. However, coupled with rising costs and reduced harvests, the increase is unlikely to increase farmer incomes significantly. The result is that "Ivorian cocoa farmers barely survive while chocolate company profits soar" [Ferdjani (2024)].

In 2023, Nestlé's chocolate confectionery sales reached 6208 million CHF (\$6.6 billion), which increased to 6567 million CHF (\$7.5 billion) in 2024 [Nestlé (2024a)]. Nestlé reported a trading operating profit margin of 16.0% in 2024, meaning that it made approximately 1051 million CHF (\$1.2 billion) from chocolate confectionery sales, which does not include the profit from other chocolate products such as snacks and drinks. To bridge the living income gap in 2023 and ensure farmers earn a minimum of \$531 per month [Medinaceli et al. (2024)], I estimate it would cost Nestlé between \$300 and \$420 million – a fair bit of its chocolate profits but a fraction of its overall profits. Ultimately, despite Nestlé's commitment to shared value, it keeps the lion's share of the value it creates in the chocolate supply chain for itself. But how does Nestlé manage to increase profits while cocoa prices rise?

First, Nestlé and other chocolate companies are raising prices. As Reuters (2024) reports, "Over the past three years, Nestlé and other consumer goods companies have raised prices across their

brands to cover sky-high input costs amid supply chain issues after the pandemic.” While this has led to declining sales volume, chocolate is a luxury product with inelastic demand. For example, in 2023, “Americans spent \$19.3 billion on chocolate at grocery and convenience stores last year, spending 5.8% more than the prior year for the treat, but buying 5.4% less” [Gibson (2024)]. Similarly, Nestlé’s confectionery sales (chocolate is 77.7% of confectionery sales) are up 6.2%, yet their sales volumes fell by 0.2% [Nestlé (2024a), p. 38]. Nestlé (2024a, p. 1) reported a 0.5% profit margin increase in 2023. Thus, sales and profits increase even while volume subsides.

Second, Nestlé and other large “chocolate companies buy cocoa up to 12 months in advance” and only pay when it is delivered [Reuters (2024)]. Forward cocoa contracts and fixed prices lower than market prices allow chocolate companies to increase prices ahead of increased costs. However, rising prices are starting to bite as new forward contracts come with higher prices, but the chocolate companies will have no choice but to pass these higher costs on to consumers [Reuters (2024)]. However, forward contracts and speculation also mean farmers do not benefit from increased prices, and some profits go to speculators who never own any cocoa.

4. Financial implications for the cocoa supply chain

The increasing and widely fluctuating cocoa prices also allow traders to profit in a bullish market. First, “The Intercontinental Exchange (ICE) cocoa futures market has seen heightened trading activity, with institutional traders driving prices higher” [Nudelman (2025)]. Chocolate producers, exporters, trade houses, processors and manufacturers use the London Cocoa futures contract as the global benchmark for physical cocoa pricing. However, managed funds

and institutional and short-term investors also speculate on the cocoa market using different financial instruments, such as Contracts for Difference, whereby investors speculate on asset price movements rather than owning the asset. When prices increase, the speculator profits, but if prices decrease, they lose.

Options traders make further profits in cocoa trading with volatility-based strategies. Since cocoa prices can fluctuate at more than \$1000 per day, speculators are also willing to make informed gambles on the market and reap large short-term profits [Nudelman (2025)]. However, any trading profits do not reach the poor cocoa farmers.

Cocoa traders, processors and companies often lock in fixed prices for their cocoa to provide price stability and liquidity. Traders with long positions in cocoa have already made significant profits. For example, cocoa futures on the ICE (ICEU) were £2037 per metric ton on May 13, 2023, and on May 7, 2025, reached £6890, an increase of 338%. When prices and production are relatively stable, forward contracts work reasonably well at securing a fixed price for producers and traders. Thus, producers and traders benefit in a market where supply equals demand.

However, climate change and disease are lowering cocoa production, and some producers cannot fulfill contracted volumes and must roll over their contracts until the promised volumes are delivered. In Ghana, this impacts the government because they sell its cocoa through the government-owned Ghana Cocoa Board (COCOBOD) using forward contracts. Unfortunately, COCOBOD cannot supply enough cocoa to meet its contractual obligations, negatively impacting COCOBOD’s and the Ghanaian government’s income [Distinguished (2025)]. According to Distinguished (2025):

"[Ghanian] President John Dramani Mahama has revealed that Ghana will lose \$4,000 on every ton of cocoa delivered in 2025 due to contracts rolled over from the 2023/2024 cocoa season. He explained that during the 2023/2024 cocoa season, COCOBOD was unable to supply 333,767 metric tons of cocoa that had already been sold at \$2,600 per ton. The contracts were therefore rolled over into the 2024/2025 season, a situation which would significantly cut revenue."

The inability to take advantage of the higher world cocoa prices drives COCOBOD and the Ghanaian government deeper into debt, which in February 2025 stood at GH¢32.5 billion (\$2.4 billion). Until then, COCOBOD has also "supplied 210,000 tonnes out of the rolled-over contract, resulting in a revenue loss of U.S.\$ 840 million for both COCOBOD and the Ghanaian farmer" with a further estimated loss of over \$400 million, by the time COCOBOD fulfills the contracts [Anku (2025)]. Hence, we have an ironic situation where an entire nation suffers low productivity, lost income and subsidizes cocoa traders and companies who still profit from producing and selling chocolate confectionery. Meanwhile, COCOBOD and the Ghanaian government do not have the income and resources to build roads and other infrastructure to support the future of cocoa farming [Anku (2025)].

5. Discussion and conclusion: optimism versus pessimism

I prefer to be optimistic about the future of cocoa farming in West Africa. On the surface, Nestlé's Cocoa Plan and the Income Accelerator Program are making some inroads into improving the incomes and lives of cocoa farmers. The impression is that Nestlé is doing some good, but

Nestlé is renowned for its ability to use all forms of media to make a good impression while, behind the scenes, it could be doing more. As Perkiss et al. (2021) find, Nestlé is skilled at presenting the impression that the company is dutifully discharging its corporate social responsibility and sustainability obligations. Nestlé's impression management resembles a pragmatic approach to repairing and gaining legitimacy by appeasing civil society through the shared value strategy and the Income Accelerator Program.

However, as my analysis based on Nestlé data shows, it still has not achieved Porter and Kramer's (2011; 2019) forecast of 1500 kg/ha and a 300% increase in farmer income. It seems like a utopian ideal. What Nestlé seems not to have predicted is the refusal of the Ivorian government to allow them to help farmers increase yields. Nor did they predict that climate change would lead to much lower productivity. Today, society has come to accept that climate change is a burgeoning environmental issue, regardless of whether one believes in it, and this does not appear to be a central concern for shared value. These factors are beyond the economic and strategic ideology that doing good for the farmer is also profitable, which is not the answer.

The main issue is that after nearly two decades, most farmers are still not earning a living income. As Ryerson (2023) observes,

"Instead of putting money into so-called sustainability programs and advertising, Nestlé should pay each farmer a true living income. However, this would require Nestlé (and other companies) to double the price they pay for cocoa."

While some companies, like Tony's Chocolonely, pay a living income price for their cocoa, it pressures prices and profits, and Tony's is still more expensive than Nestlé and is struggling to be profitable. Still, survival is not impossible, and time will tell if consumer demand for more ethically produced chocolate will prevail. There are signs that this tide is turning as Tony's Chocolonely supplies raw materials to other producers, and the number of producers sourcing from them is increasing [Reul (2025)].

In the end, securing secure, low-cost and long-term supplies and keeping the lion's share of the profits is the desired outcome. Nestlé, other chocolate companies and traders are profiting more even as costs increase. Nestlé and the cocoa companies keep raising prices ahead of predictable cost increases because they lock in the price of their cocoa well in advance. Traders and speculators also have the opportunity to profit from the increasing prices and volatility. However, these profits do not filter down to

the farmer. Worse yet, because of lower productivity, the Ghanaian government effectively subsidizes traders and cocoa companies who remain profitable.

There is the ability to pay farmers a living income, but this still has not eventuated. I am hopeful that living income will one day be a concern of the past, that climate change will reverse, and that the cocoa price will stabilize. I also hope the Ivorian government can see the writing on the wall and do something more about helping farmers replace aging and diseased trees with more productive trees. I also hope that productivity, supply and demand stabilize so that forward contracts benefit producers and purchasers. However, I think this is my utopian optimism. I am concerned for the future of cocoa farming in West Africa, not just for those farmers involved in the Nestlé Cocoa Plan. At least these farmers have some corporate support. I am more concerned for those who don't.

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