

ACC-FPX5610 Assessment 1

Organizational Accounting Analysis

Option Pricing and Currency Hedging at Hopkins Chocolate Company

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Educational Sample Notice

This original sample demonstrates one way to address the public ACC-FPX5610 Assessment 1 scenario. Learners should verify current course instructions, use their own research, and adapt calculations to the exchange rate required by their assessment date.

Primary keyword: ACC-FPX5610 Assessment 1 Organizational Accounting Analysis

Related keywords: option pricing, derivative financial instruments, Hopkins Chocolate Company, currency hedging, USD/GHS exchange rate, Ghanaian Cedi, advanced accounting, budget planning and control

Executive Summary

Hopkins Chocolate Company purchases 100 metric tons of cocoa beans from Abamo Chocolate in Ghana. The purchase price is economically equivalent to \$200,000, but the supplier requires payment of 900,000 Ghanaian cedis (GHS) after 90 days. To protect the company against a stronger cedi, the treasurer paid an \$8,000 premium for an option that allowed Hopkins to exchange \$200,000 for GHS 900,000 at maturity. This report evaluates the option, explains the main drivers of the USD/GHS exchange rate, and recommends an appropriate currency-risk policy.

Using Xe's August 1, 2026 mid-market rate of 1 USD = 11.6836 GHS, Hopkins can obtain GHS 900,000 in the spot market for approximately \$77,031.05. Exercising the option would require \$200,000, so the option is out of the money and should expire unexercised. The direct loss caused by purchasing the option is limited to the \$8,000 premium. However, the company still benefits from the favorable currency movement. Compared with the original \$200,000 expected cash outflow, buying the cedis at spot and including the premium produces total cash savings of approximately \$114,968.95. The option therefore performed as insurance: it was not used, but it preserved protection against an unfavorable exchange-rate outcome.

Hopkins should purchase the required cedis at the spot rate, allow the option to expire, and document the transaction under its applicable derivative-accounting policy. For future purchases, management should combine forward contracts for highly certain cocoa orders with purchased currency options for uncertain quantities or timing. This approach controls downside risk while preserving some benefit when the dollar strengthens.

Keywords: ACC-FPX5610 Assessment 1, organizational accounting analysis, option pricing, derivative financial instruments, foreign exchange risk, currency hedging, USD/GHS exchange rate, Ghanaian cedi, Hopkins Chocolate Company.

Introduction

International purchasing creates accounting and cash-flow uncertainty when a contract is denominated in a currency different from the buyer's functional currency. Hopkins Chocolate Company faces transaction exposure because it knows the cedi amount due to Abamo Chocolate but does not know the final U.S. dollar cost until payment. A currency derivative can reduce this uncertainty by creating an offsetting position whose value changes with the exchange rate. The International Monetary Fund describes financial derivatives as instruments linked to an underlying financial instrument, indicator, or commodity through which risks such as foreign exchange risk can be traded separately (International Monetary Fund [IMF], n.d.). The Hopkins option is therefore a risk-management instrument rather than a separate cocoa investment.

This organizational accounting analysis addresses four issues. First, it explains the nature and main types of derivative financial instruments. Second, it analyzes three major factors that can influence the value of the U.S. dollar against the Ghanaian cedi. Third, it calculates the outcome of Hopkins's 90-day option using a current exchange rate. Finally, it evaluates a defined purchase contract, including a currency forward, as an alternative hedge and discusses the related accounting and control implications.

Nature of Derivative Financial Instruments

A derivative receives its value from an underlying item, such as a currency, commodity, interest rate, security, or market index. A purchased option gives the holder a right, but not an obligation, to complete a transaction at an agreed price before or on a stated expiration date. This right is important because the holder can exercise the option when the agreed rate is favorable and let it expire when the spot market is better. The U.S. Securities and Exchange Commission (2015) similarly explains that an option gives its owner the right to buy or sell an underlying asset at a fixed price within a specified period.

The four common derivative categories are options, forwards, futures, and swaps. An option offers flexibility in exchange for an upfront premium. A forward is a private agreement that obligates two parties to exchange an asset or currency at a fixed future date and rate. A futures contract performs a similar function but is standardized and traded through an organized market. A swap requires the parties to exchange cash-flow streams, such as fixed and variable interest payments or payments in two currencies. For Hopkins, the most relevant instruments are a purchased currency option and a currency forward because both can address the cedi payment due in 90 days.

Derivatives can reduce volatility, improve budgeting, and protect operating margins, but they also create costs and control risks. The premium paid for an option may expire without producing an exercise payoff. A forward removes favorable as well as unfavorable exchange-rate outcomes because both parties are obligated to perform. Over-the-counter instruments also create counterparty, valuation, documentation, and settlement risks. Hopkins should therefore use derivatives only for documented business exposures, separate authorization from transaction recording, obtain independent valuations, and report hedge performance to senior management.

Hopkins Chocolate Company's Foreign Exchange Exposure

Hopkins purchases 100 metric tons of cocoa beans at an indicated price of \$2,000 per metric ton, giving an expected purchase value of \$200,000. The supplier's invoice is denominated in GHS 900,000 and is payable after 90 days. This arrangement creates a foreign-currency commitment: if the cedi strengthens against the dollar, Hopkins needs more dollars to obtain the required GHS 900,000; if the cedi weakens, the dollar cost falls. The option establishes an effective strike rate of 4.5 GHS per USD because GHS 900,000 divided by \$200,000 equals 4.5.

Contract strike rate: $\text{GHS } 900,000 / \text{USD } 200,000 = 4.5 \text{ GHS per USD}$

The \$8,000 premium is the cost of retaining the right to use this exchange rate. It should not be confused with the amount exchanged under the option. The premium is paid for protection and is at risk even when the option is not exercised. Management should therefore evaluate the option by comparing the strike-rate cash requirement with the cash requirement under the spot exchange rate at maturity.

Factors Influencing the USD/GHS Exchange Rate

Inflation and Interest-Rate Conditions

Differences in inflation and interest rates influence the relative demand for the two currencies. Higher inflation in Ghana reduces the cedi's domestic purchasing power and may place downward pressure on its external value. Interest-rate changes can partly offset that effect by attracting investment into cedi-denominated assets, but the result depends on whether investors believe the higher return compensates for inflation and currency risk. U.S. monetary policy also matters because higher U.S. rates can increase the global demand for dollar assets.

Fiscal, Monetary, and Political Credibility

Exchange rates respond to expectations about public debt, fiscal deficits, central-bank policy, foreign-exchange reserves, and political stability. A credible plan to control inflation and debt can strengthen confidence in the cedi. In contrast, uncertainty about financing needs, policy direction, or reserve adequacy can increase demand for dollars. Ghana operates a managed floating exchange-rate regime, so the market rate can move while the Bank of Ghana uses policy and foreign-exchange operations to support orderly market conditions (Bank of Ghana, 2026a).

Trade Flows, Cocoa Receipts, and Global Dollar Demand

Ghana earns foreign currency from exports, including cocoa, gold, and oil. Strong export receipts increase the supply of dollars available in the domestic market and can support the cedi. Import demand, external debt payments, and capital outflows increase demand for dollars and

can weaken the cedi. Global risk sentiment also affects the pair because investors often increase demand for U.S. dollars during periods of financial stress. Hopkins should therefore monitor both Ghana-specific conditions and broad movements in the dollar.

Evaluation of the 90-Day Currency Option

The valuation date for this sample is August 2, 2026. Because that date is a Sunday, the most recent available market observations are used. Xe reported approximately 1 USD = 11.6836 GHS on August 1, 2026, and the Bank of Ghana reported an official interbank midpoint of 11.6900 GHS per USD for July 31, 2026 (Bank of Ghana, 2026b; Xe, 2026). The two rates are close. The following calculation uses the Xe rate because the assessment scenario specifically directs the analyst to use Xe's live exchange rate.

Calculation	Formula	Result
Strike exchange rate	900,000 GHS / 200,000 USD	4.5000 GHS/USD
Spot cost of GHS 900,000	900,000 / 11.6836	\$77,031.05
Exercise cost under option	Contract amount	\$200,000.00
Option disadvantage at maturity	200,000 - 77,031.05	\$122,968.95
Direct loss on option purchase	Premium paid	\$8,000.00
Net savings versus expected \$200,000 cost	200,000 - 77,031.05 - 8,000	\$114,968.95

Note. Rates are rounded; actual bank execution rates and transaction fees may differ from informational mid-market rates.

The option should not be exercised because Hopkins can purchase GHS 900,000 for about \$77,031.05 in the spot market instead of surrendering \$200,000 under the option. The option's intrinsic value to Hopkins is therefore zero at expiration. The strict answer to how much the company lost by purchasing the option is \$8,000, which is the premium. However, the full organizational cash-flow analysis is more favorable: the cedi's depreciation reduces the currency cost by \$122,968.95 relative to the original \$200,000 expectation, and the remaining benefit after the premium is \$114,968.95.

This outcome does not mean the treasurer's decision was necessarily poor. Insurance is purchased before the future is known. If the cedi had strengthened enough that GHS 900,000 cost more than \$200,000 in the spot market, Hopkins could have exercised the option and limited the exchange cost to \$200,000 plus the premium. The option protected the maximum downside while allowing the company to benefit when the dollar strengthened. Management should judge the hedge against the risk policy and budget certainty it provided, not only against the fact that the premium expired.

Accounting Treatment and Organizational Controls

Under U.S. generally accepted accounting principles, derivative instruments are generally recognized on the statement of financial position at fair value. FASB guidance under Topic 815 requires an entity to recognize derivatives as assets or liabilities at fair value (Financial Accounting Standards Board [FASB], 2022). The accounting location of subsequent gains and losses depends on whether the derivative qualifies for hedge accounting and how the hedging relationship is designated.

If Hopkins formally designates the option as a cash-flow hedge of a highly probable forecasted cocoa purchase and satisfies the documentation and effectiveness requirements, the effective portion of the derivative's change in value may initially be reported in other comprehensive income and later reclassified or included in the inventory basis as required by the applicable guidance. If the documentation is incomplete or the hedge does not qualify, fair-value changes generally affect current earnings. The \$8,000 premium and the option's time value must also be handled consistently with the selected accounting policy.

The controller should require written hedge objectives, identification of the hedged transaction, approved counterparties, maximum hedge percentages, independent rate verification, and monthly reconciliation of derivative confirmations to the general ledger. The treasury

employee who executes the hedge should not be the same person who records or approves it. These controls reduce unauthorized trading, incorrect valuation, and financial-statement misclassification.

Defined Purchase Contract as a Currency Hedge

A defined purchase contract should state the cocoa quantity, quality, price, invoice currency, delivery date, payment date, and consequences of nonperformance. To fix the dollar cost of a cedi-denominated payment, Hopkins can add a currency forward with a bank. The forward would obligate Hopkins to purchase GHS 900,000 at a predetermined USD/GHS rate in 90 days. This arrangement eliminates uncertainty but does not permit Hopkins to walk away when the spot rate becomes more favorable.

A forward is generally suitable when the purchase quantity and payment date are highly certain. An option is more suitable when volume, timing, or the probability of the purchase is uncertain because the company can let the option expire. Hopkins can also use a layered approach: hedge a high-confidence portion of the expected payment with a forward and use an option or remain unhedged for the flexible portion. For example, management could forward-hedge 70 percent of a confirmed order and use an option for the remaining 30 percent when shipment timing is less certain.

The recommended policy is to match the derivative's amount and maturity to the underlying payable, avoid speculative positions, compare quotations from approved financial institutions, and document hedge effectiveness at inception and throughout the relationship. The purchasing, treasury, and accounting teams should share a rolling 90-day forecast so that the hedge reflects actual cocoa requirements rather than an unsupported estimate.

Recommendation

Hopkins should allow the existing option to expire and purchase GHS 900,000 in the spot market. At the sample rate, the company will spend approximately \$77,031.05 for the cedis and will have incurred an additional \$8,000 premium, for a combined currency-related cash outflow of \$85,031.05. Management should record and disclose the derivative according to Topic 815 and its documented hedge designation.

For future transactions, Hopkins should adopt a formal foreign-exchange risk policy. Highly certain orders should be hedged mainly with forwards because forwards usually provide budget certainty without a separate option premium. Options should be reserved for uncertain orders, volatile periods, or situations in which management values the ability to benefit from favorable currency movements. Quarterly reporting to the board should show the underlying exposure, hedge instrument, protected rate, premium or forward points, fair value, accounting designation, and realized outcome.

Conclusion

The Hopkins Chocolate Company option demonstrates how derivatives support organizational planning when a purchase is denominated in a foreign currency. The option fixed a worst-case exchange arrangement while preserving the right to use the spot market. At the August 2026 valuation rate, the cedi is much weaker than the option's strike rate, so exercising the option would be uneconomical. Hopkins loses the \$8,000 premium but retains approximately \$114,968.95 in net cash savings compared with the original \$200,000 expected currency cost. The company should let the option expire, buy the cedis at spot, apply the appropriate derivative accounting, and strengthen its hedge-governance process. A disciplined combination of forwards and options can protect cocoa margins without converting treasury activity into speculation.

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Appendix A: Assessment Coverage Map

The table below shows how the sample addresses the central requirements commonly presented for ACC-FPX5610 Assessment 1.

Assessment Requirement	Location in Sample
Discuss the nature of derivative financial instruments.	Nature of Derivative Financial Instruments
Explain factors that influence the USD/GHS exchange rate.	Factors Influencing the USD/GHS Exchange Rate
Calculate the result of the 90-day option using a current rate.	Evaluation of the 90-Day Currency Option
Explain the use of a defined purchase contract as a hedge.	Defined Purchase Contract as a Currency Hedge
Communicate accounting implications and recommendations.	Accounting Treatment, Recommendation, and Conclusion