

INTERNATIONAL FINANCIAL MANAGEMENT

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CAPSTONE ON CHF/MXN

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DECLARATION BY STUDENTS

I hereby declare that “Capstone Project” is the result of the project work carried out by me as a partial fulfilment for the award of Master’s Degree in Business Administration by Bengaluru City University. I also declare that this project is the outcome of my own efforts and that it has not been submitted to any other University or Institute for the award of any other degree or Diploma or Certificate.

Signature of Students

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CAPSTONE PROJECT-IFM

Assigned Currencies: Swiss Franc (CHF) & Mexican Peso (MXN)

Swiss Franc (CHF): The Swiss Franc is the official currency of Switzerland and is known for its stability and safe-haven status in global markets.

Mexican Peso (MXN): The Mexican Peso is the official currency of Mexico, commonly used in Latin America, and is noted for its relatively high liquidity among emerging market currencies.

Note: Assuming MXN is a domestic currency and CHF is a foreign currency.

I. Forecast the exchange rates for 3-months, 6-months, 9-months, 1 year, 2 years and 3 years using Purchase Power Parity and Interest Rates.

Spot Rate as on 07th Aug: 1 CHF = 22.19 MXN

A. Using Purchase Power Parity

Formula for forecasting exchange rates using PPP:

$$\text{Forward Exchange Rate} = \text{Spot Rate} \times [(1+I_d) / (1+I_f)]^t$$

Here,

I_d = Inflation of Domestic Currency, I_f = Inflation of Foreign Currency & t = Forecast period

Data Collected:

Spot Rate as on 07th Aug: 1 CHF = 22.19 MXN

Inflation Rate of CHF (I_f): 1.50%

Inflation Rate of MXN (I_d): 4.98%

Using the above formula of PPP, the exchange rate is forecasted as follows:

Spot Rate	Inflation Rate of MXN, I_d	Inflation Rate of CHF, I_f	Forecast period	Forward Rate (Calculation using PPP formula as shown above)	Forward Rate/ Forecasted Exchange Rate
22.19	4.98%	1.50%	3 Months ($t=0.25$)	$=22.19 \times ((1+0.0498)/(1+0.015))^{(3/12)}$	22.378
22.19	4.98%	1.50%	6 Months ($t=0.50$)	$=22.19 \times ((1+0.0498)/(1+0.015))^{(6/12)}$	22.567
22.19	4.98%	1.50%	9 Months ($t=0.75$)	$=22.19 \times ((1+0.0498)/(1+0.015))^{(9/12)}$	22.758
22.19	4.98%	1.50%	1 Year ($t=1$)	$=22.19 \times ((1+0.0498)/(1+0.015))^1$	22.951
22.19	4.98%	1.50%	2 Years ($t=2$)	$=22.19 \times ((1+0.0498)/(1+0.015))^2$	23.738
22.19	4.98%	1.50%	3 Years ($t=3$)	$=22.19 \times ((1+0.0498)/(1+0.015))^3$	24.552

Interpretation: The table calculates the forecasted exchange rates between the Mexican Peso (MXN) and the Swiss Franc (CHF) using the Purchasing Power Parity (PPP) formula, showing a gradual depreciation of MXN against CHF over different forecast periods

B. Using Interest Rates

Formula for forecasting exchange rates using Interest Rate Parity:

$$\text{Forward Exchange Rate} = \text{Spot Rate} \times [(1+r_d) / (1+r_f)]^t$$

Here,

r_d = Interest rate of Domestic Currency, r_f = Interest rate of Foreign Currency & t = Forecast period

Data Collected:

Spot Rate as on 07th Aug: 1 CHF = 22.19 MXN

Interest Rate of CHF (r_f): 1.75%

Interest Rate of MXN (I_d): 11.25%

Using the above formula of Interest Rates, the exchange rate is forecasted as follows:

Spot Rate	Interest Rate of MXN, I_d	Interest Rate of CHF, I_f	Forecast period	Forward Rate (Calculation using Interest formula as shown above)	Forward Rate/ Forecasted Exchange Rate
22.19	11.25%	1.75%	3 Months ($t=0.25$)	$=22.19 * ((1+0.1125)/(1+0.0175))^{(3/12)}$	22.691
22.19	11.25%	1.75%	6 Months ($t=0.50$)	$=22.19 * ((1+0.1125)/(1+0.0175))^{(6/12)}$	23.203
22.19	11.25%	1.75%	9 Months ($t=0.75$)	$=22.19 * ((1+0.1125)/(1+0.0175))^{(9/12)}$	23.726
22.19	11.25%	1.75%	1 Year ($t=1$)	$=22.19 * ((1+0.1125)/(1+0.0175))^1$	24.262
22.19	11.25%	1.75%	2 Years ($t=2$)	$=22.19 * ((1+0.1125)/(1+0.0175))^2$	26.527
22.19	11.25%	1.75%	3 Years ($t=3$)	$=22.19 * ((1+0.1125)/(1+0.0175))^3$	29.004

Interpretation: The table forecasts the exchange rates between the Mexican Peso (MXN) and the Swiss Franc (CHF) using interest rate parity, indicating a projected depreciation of MXN against CHF over different time periods.

Summary of the forecasted exchange rates:

Forecast period	Forward Rate/Forecasted Exchange Rate	
	Using PPP	Using Interest Rate Parity
3 Months ($t=0.25$)	1 CHF = MNX 22.378	1 CHF = MNX 22.691
6 Months ($t=0.50$)	1 CHF = MNX 22.567	1 CHF = MNX 23.203
9 Months ($t=0.75$)	1 CHF = MNX 22.758	1 CHF = MNX 23.726
1 Year ($t=1$)	1 CHF = MNX 22.951	1 CHF = MNX 24.262
2 Years ($t=2$)	1 CHF = MNX 23.738	1 CHF = MNX 26.527
3 Years ($t=3$)	1 CHF = MNX 24.552	1 CHF = MNX 29.004

II. Exchange rates between the Swiss Franc (CHF) and the Mexican Peso (MXN) were impacted by macro-economic factors

Exchange rates between currency pairs such as the Swiss Franc (CHF) and the Mexican Peso (MXN) are influenced by a range of macroeconomic factors. Various factors have impacted the exchange rates between CHF and MXN from 1920 to 2024. The key macroeconomic factors considered include inflation rates, interest rates, economic growth, political stability, trade balances, and global financial crises.

Macroeconomic Factors Impacting Exchange Rates

1. Inflation Rates

Inflation is a critical determinant of exchange rates. Higher inflation in a country generally leads to a depreciation of its currency, as purchasing power decreases relative to countries with lower inflation rates.

Impact on CHF: Switzerland has historically maintained low inflation rates, contributing to the strength and stability of the CHF. According to a study by the Swiss National Bank (2020), the low and stable inflation in Switzerland has been a significant factor in the appreciation of the CHF over the decades.

Impact on MXN: In contrast, Mexico has experienced periods of high inflation, particularly during the debt crisis of the 1980s and the peso crisis in 1994. A study by Edwards (1998) highlights that the high inflation during these periods led to significant depreciation of the MXN.

2. Interest Rates

Interest rate differentials between countries can attract investment, affecting exchange rates. Higher interest rates offer better returns on investments, leading to an appreciation of the currency.

Impact on CHF: Switzerland has often had lower interest rates compared to other countries, especially during periods of global financial uncertainty. This has sometimes led to capital inflows, appreciating the CHF as a safe-haven currency.

Impact on MXN: Mexico's interest rates have been higher, aimed at controlling inflation and attracting foreign investment. However, the volatility in interest rates has also led to exchange rate fluctuations. A study by the Bank of Mexico (2017) suggests that higher interest rates in Mexico have attracted short-term capital inflows, impacting the MXN exchange rate.

3. Economic Growth

Economic growth affects investor confidence and currency strength. Strong economic growth typically leads to currency appreciation.

Impact on CHF: Switzerland's robust economic growth, driven by its advanced industrial sector and financial services, has supported a strong CHF. A World Bank report (2019) attributes Switzerland's economic stability and growth as key factors in the long-term appreciation of the CHF.

Impact on MXN: Mexico's economic growth has been more volatile, influenced by factors such as oil prices and trade policies. Periods of economic instability have led to depreciation of the MXN. According to a study by the International Monetary Fund (2015), fluctuations in Mexico's GDP growth have had a direct impact on the MXN exchange rate.

4. Political Stability

Political stability or instability can significantly impact investor confidence and currency values.

Impact on CHF: Switzerland's political stability has been a cornerstone of its economic strength and the stability of the CHF. The World Economic Forum (2020) notes that Switzerland's stable political environment has made it a preferred destination for investment.

Impact on MXN: Mexico has faced political challenges, including corruption and drug-related violence, which have at times undermined investor confidence. Political instability has contributed to the volatility of the MXN, as detailed in a study by Rojas-Suárez (2007).

5. Trade Balances

A country's trade balance reflects its international economic position and impacts exchange rates.

Impact on CHF: Switzerland consistently runs a trade surplus, bolstering the CHF. The surplus is driven by high-value exports such as pharmaceuticals and machinery. The Swiss Federal Statistical Office (2018) reports that the strong trade balance has been a key factor in the appreciation of the CHF.

Impact on MXN: Mexico's trade balance has been influenced by its reliance on oil exports and manufacturing. Trade deficits and changes in oil prices have contributed to the volatility of the MXN. A study by the OECD (2016) highlights the impact of trade imbalances on the MXN.

6. Global Financial Crises

Global financial crises can lead to significant currency fluctuations as investors seek safe-haven assets or liquidate investments.

Impact on CHF: During global financial crises, the CHF often appreciates due to its status as a safe-haven currency. The 2008 financial crisis saw a surge in demand for the CHF, as detailed in a study by Baur and McDermott (2010).

Impact on MXN: In contrast, the MXN typically depreciates during global financial crises due to reduced investor confidence in emerging markets. The 2008 crisis and the COVID-19 pandemic are examples where the MXN experienced significant depreciation. A study by Cavallo and Frankel (2008) illustrates the impact of the 2008 crisis on emerging market currencies, including the MXN.

The exchange rates between the Swiss Franc (CHF) and the Mexican Peso (MXN) from 1920 to 2024 have been influenced by various macroeconomic factors, including inflation rates, interest rates, economic growth, political stability, trade balances, and global financial crises. Switzerland's economic stability and low inflation have supported a strong CHF, while Mexico's economic volatility and higher inflation have contributed to the MXN's depreciation. Understanding these factors provides insight into the long-term trends and fluctuations in the CHF/MXN exchange rate.

III. Construct option strategy using long call and long put from the perspective of importer and exporter for 1 million units of currency with various strike prices leads to In-the-money, out-of-the-money and at-the-money situations with a premium of 2% on the spot price.

Spot Rate as on 07th Aug: 1 CHF = 22.19 MXN

Exercise Price = 22.50 MXN

Premium: 2% on the spot price = 2% on CHF 22.19 = CHF 0.4438

Amount involved = CHF 10,00,000

Note: It is not possible to hedge the risk while holding short position, as exercise right is not available to short position holders. This is in case of importer and exporter.

A. Perspective of Exporter

Long Put							
Spot Price	Exercise Price	Moneyness	Premium (2% of Spot Price)	Execute the contract or not	Rate	Transaction Value (Calculation)	Transaction Value (MXN)
22.00	22.50	In the Money	0.4438	Yes	22.06	=22.0562*1000000	2,20,56,200
22.50	22.50	At the Money	0.4438	Yes/No	22.06	=22.0562*1000000	2,20,56,200
23.00	22.50	Out of the Money	0.4438	No	22.56	=22.5562*1000000	2,25,56,200

Interpretation: For an exporter using long put options for hedging, the best scenario is when the spot price is above the exercise price, as seen with the spot price of 23.00. This allows the exporter to hedge the risk and sell at a higher rate, ensuring better profitability. Therefore, a spot price of 23.00 is most favourable for the exporter, maximizing hedging effectiveness.

Short Call							
Spot Price	Exercise Price	Moneyness	Premium (2% of Spot Price)	Execute the contract or not	Rate	Transaction Value (Calculation)	Transaction Value (MXN)
23.00	22.50	Out of the Money	0.4438	Yes	22.94	=22.9438*1000000	2,29,43,800
22.50	22.50	At the Money	0.4438	Yes/No	22.94	=22.9438*1000000	2,29,43,800
22.00	22.50	In the Money	0.4438	No	22.44	=22.4438*1000000	2,24,43,800

Interpretation: For an exporter using short call options for hedging, the best scenario is when the spot price is above the exercise price, as seen with the spot price of 23.00. This allows the exporter to hedge the risk and sell at a higher rate, ensuring better profitability. Therefore, a spot price of 23.00 is most favourable for the exporter, maximizing hedging effectiveness.

B. Perspective of Importer

Long Call							
Spot Price	Exercise Price	Moneyness	Premium (2% of Spot Price)	Execute the contract or not	Rate	Transaction Value (Calculation)	Transaction Value (MXN)
23.00	22.50	In the Money	0.4438	Yes	22.94	=22.9438*1000000	2,29,43,800
22.50	22.50	At the Money	0.4438	Yes/No	22.94	=22.9438*1000000	2,29,43,800
22.00	22.50	Out of the Money	0.4438	No	22.44	=22.4438*1000000	2,24,43,800

Interpretation: For an importer using long call options for hedging, the best scenario is when the spot price is below the exercise price, as seen with the spot price of 22.00. This allows the exporter to hedge the risk and sell at a higher rate, ensuring better profitability. Therefore, a spot price of 22.00 is most favourable for the exporter, maximizing hedging effectiveness.

Short Put							
Spot Price	Exercise Price	Moneyness	Premium (2% of Spot Price)	Execute the contract or not	Rate	Transaction Value (Calculation)	Transaction Value (MXN)
22.00	22.50	Out of the Money	0.4438	Yes	22.06	=22.0562*1000000	2,20,56,200
22.50	22.50	At the Money	0.4438	Yes/No	22.06	=22.0562*1000000	2,20,56,200
23.00	22.50	In the Money	0.4438	No	22.56	=22.5562*1000000	2,25,56,200

Interpretation: For an importer using short put options for hedging, the best scenario is when the spot price is below the exercise price, as seen with the spot price of 22.00. This allows the exporter to hedge the risk and sell at a higher rate, ensuring better profitability. Therefore, a spot price of 22.00 is most favourable for the exporter, maximizing hedging effectiveness.

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CAD/CNH

Canadian Dollar (CAD): The Canadian dollar (CAD), often symbolized as "C\$" or called the "loonie," is the official currency of Canada, subdivided into 100 cents. It is a major global currency, heavily influenced by commodity prices, particularly oil, given Canada's significant role in natural resource exports. The value of the CAD is also shaped by economic conditions and monetary policy decisions by the Bank of Canada. Known for its stability, the Canadian dollar is widely used in international trade and held as a reserve currency by central banks around the world..

Chinese Yuan (CNH): The Chinese yuan, also known as the renminbi (RMB), is the official currency of China, symbolized by "¥" and subdivided into 10 jiao or 100 fen. The yuan is central to China's economy, the world's second-largest, and plays an increasingly significant role in global trade and finance. The People's Bank of China (PBOC) manages the yuan's value, often within a managed float system, influencing its exchange rate to support economic stability and growth. As China continues to expand its global influence, the yuan is becoming more widely used in international transactions and held as a reserve currency by other nations.

Note: Assuming CNH is a domestic currency and CAD is a foreign currency.

I. Forecast the exchange rates for 3-months, 6-months, 9-months, 1 year, 2 years and 3 years using Purchase Power Parity and Interest Rates.

Spot Rate as on 10th Aug: 1 CAD = 5.21 CNH

A. Using Purchase Power Parity

Formula for forecasting exchange rates using PPP:

$$\text{Forward Exchange Rate} = \text{Spot Rate} \times [(1+I_d) / (1+I_f)]^t$$

Here,

I_d = Inflation of Domestic Currency, I_f = Inflation of Foreign Currency & t = Forecast period

Data Collected:

Spot Rate as on 10th Aug: 1 CAD = 5.21 CNH

Inflation Rate of CAD (I_f): 2.67%

Inflation Rate of CNH (I_d): 0.5%

Using the above formula of PPP, the exchange rate is forecasted as follows:

Spot Rate	Inflation Rate of CNH, I_d	Inflation Rate of CAD, I_f	Forecast Period	Forward Rate/ Forecasted Exchange Rate
5.21	0.50%	2.67%	3 Months ($t=0.25$)	5.182249857
5.21	0.50%	2.67%	6 Months ($t=0.50$)	5.15464752
5.21	0.50%	2.67%	9 Months ($t=0.75$)	5.127192203
5.21	0.50%	2.67%	1 Year ($t=1$)	5.099883121
5.21	0.50%	2.67%	2 Year ($t=2$)	4.992093636
5.21	0.50%	2.67%	3 Year ($t=3$)	4.886582355

Interpretation-

The data shows the current exchange rate between the Chinese Yuan (CNH) and the Canadian Dollar (CAD) at 5.21, with the forecasted exchange rates declining over time, from 5.1822 in 3 months to 4.8866 in 3 years. Despite the higher inflation rate in Canada (2.67%) compared to China (0.50%), the CNH is expected to depreciate against the CAD over the forecast period. This suggests that other factors, such as interest rate differentials or economic outlook, are influencing the expected decline in the CNH/CAD exchange rate.

B. Using Interest Rates

Formula for forecasting exchange rates using Interest Rate Parity:

$$\text{Forward Exchange Rate} = \text{Spot Rate} \times [(1+r_d) / (1+r_f)]^t$$

Here,

r_d = Interest rate of Domestic Currency, r_f = Interest rate of Foreign Currency & t = Forecast period

Data Collected:

Spot Rate as on 10th Aug: 1 CAD = 5.21 CNH

Interest Rate of CAD (r_f): 4.5%

Interest Rate of CNH (r_d): 1.6%

Using the above formula of Interest Rates, the exchange rate is forecasted as follows:

Spot Rate	Interest Rate of CNH, r_d	Interest Rate of CAD, r_f	Forecast Period	Forward Rate/ Forecasted Exchange Rate
5.21	1.60%	4.50%	3 Months ($t=0.25$)	5.173471699
5.21	1.60%	4.50%	6 Months ($t=0.50$)	5.137199505
5.21	1.60%	4.50%	9 Months ($t=0.75$)	5.101181622
5.21	1.60%	4.50%	1 Year ($t=1$)	5.065416268
5.21	1.60%	4.50%	2 Year ($t=2$)	4.924844907
5.21	1.60%	4.50%	3 Year ($t=3$)	4.78817457

Interpretation-

The data presents the current exchange rate between the Chinese Yuan (CNH) and the Canadian Dollar (CAD) at 5.21, with forecasted exchange rates declining over time, from 5.1735 in 3 months to 4.7882 in 3 years. The interest rate differential, where China's rate (1.60%) is lower than Canada's (4.50%), suggests that the CNH is expected to depreciate against the CAD over time. This expected depreciation is reflected in the forward rates, which consistently decrease, indicating that higher Canadian interest rates are leading to an anticipated weakening of the CNH relative to the CAD over the forecast periods.

II. The Impact of Macro-Economic Factors on the Exchange Rate Between CAD and CNH (1920-2024)

Exchange rates reflect a complex interplay of economic variables and global events. The exchange rate between the Canadian Dollar (CAD) and the Chinese Yuan (CNH) has been shaped by various macro-economic factors from 1920 to 2024.

Historical Review

1920-1949: The Early 20th Century

During this period, China was primarily on the silver standard, and the value of the yuan fluctuated significantly due to political instability and economic turmoil, including the Chinese Civil War. Meanwhile, Canada was largely influenced by the British pound due to its ties to the British Empire. The CAD was pegged to the British pound until 1931 and later to the U.S. dollar. Due to the lack of direct exchange mechanisms and economic isolation, there was limited direct interaction between the CAD and CNY.

1950-1978: Post-War Period and Early Chinese Reforms

In the post-World War II era, China, under Communist rule, established a fixed exchange rate regime with the yuan tightly controlled by the government, making international exchange difficult. The Canadian dollar moved to a floating exchange rate in 1950 but returned to a peg in 1962 before floating again in 1970. During this period, the CAD's value was primarily influenced by its trade with the U.S. and global commodity markets, while the CNY was mostly insulated due to China's limited international trade and rigid currency controls.

1978-2000: China's Economic Reforms and Globalization

Starting in 1978, China initiated significant economic reforms, gradually opening its economy to the world. The yuan was officially pegged to the U.S. dollar, which led to a stable exchange rate with major currencies, including the CAD, through the dollar's intermediary role. Canada's economy during this period was shaped by resource exports and its close relationship with the U.S. The exchange rate between the CAD and CNY began to take on more significance as China's global economic presence grew.

2000-2015: China's Rise and Commodity Boom

China's entry into the World Trade Organization (WTO) in 2001 marked a significant turning point, leading to a surge in global trade. The yuan was pegged to the dollar but gradually moved

towards a managed float in 2005, allowing more flexibility. During this period, the Canadian dollar benefited from the global commodity boom, driven in part by China's massive demand for resources. This led to periods of appreciation for the CAD against the yuan when commodity prices were high.

2015-2024: Modern Era of Economic Interdependence

In recent years, the exchange rate between the CAD and CNY has been influenced by a more complex interplay of factors, including shifting trade dynamics, geopolitical tensions, and divergent monetary policies. China's ongoing efforts to internationalize the yuan and Canada's dependence on commodity exports continue to shape the exchange rate. Events like the COVID-19 pandemic and its impact on global supply chains, as well as fluctuating oil prices, have caused significant volatility. The CNY has become more market-driven, although still subject to significant state intervention, while the CAD remains closely linked to global economic trends and commodity markets.

Throughout this period, the CAD/CNY exchange rate has evolved from being almost irrelevant in the early 20th century to becoming an important measure of the economic relationship between Canada and China in the modern era.

Macro economic factors

- **Commodity Prices**

Canada's economy is heavily dependent on commodities like oil, minerals, and agricultural products. Fluctuations in global commodity prices, especially oil, have a direct impact on the CAD. When prices are high, the CAD tends to appreciate, while lower prices lead to depreciation.

- **Economic Growth**

China's rapid economic growth since the late 20th century has strengthened the yuan, especially as China became the world's manufacturing hub. Meanwhile, Canada's growth has been more stable, driven by resource exports and trade with the U.S. Economic growth differentials have often led to shifts in the CAD/CNY exchange rate.

- **Interest Rates and Monetary Policy**

The Bank of Canada (BoC) and the People's Bank of China (PBoC) set interest rates to control inflation and stabilize their economies. Higher interest rates in Canada relative to China can

attract foreign investment, boosting the CAD, while lower rates can weaken it. Conversely, China's monetary policy, which often focuses on maintaining a stable exchange rate for trade competitiveness, has kept the yuan relatively stable, though with periods of controlled appreciation.

- **Trade Balances**

Canada's trade relationship with China, particularly the trade balance, plays a significant role in the exchange rate. A trade deficit with China can weaken the CAD against the yuan, while a surplus can strengthen it. Over the decades, as China has become a major trading partner, the trade dynamics between the two countries have increasingly influenced the exchange rate.

- **Global Economic Events**

Major global events, such as the Great Depression, World War II, the 1973 oil crisis, the 2008 financial crisis, and the COVID-19 pandemic, have had significant impacts on the CAD/CNY exchange rate. These events typically caused volatility and shifts in global investor sentiment, affecting the demand for both currencies.

- **Exchange Rate Policies**

China's exchange rate policy has evolved from a fixed system to a more flexible managed float, allowing the yuan to respond to market forces, though still under significant government control. Canada has maintained a floating exchange rate since 1970, allowing the CAD to fluctuate more freely in response to economic conditions.

Overall, the exchange rate between the Canadian dollar and the Chinese yuan from 1920 to 2024 has been shaped by a complex interplay of domestic and international economic factors, reflecting the broader economic evolution and global shifts of the 20th and 21st centuries.

III. Construct option strategy using long call and long put from the perspective of Importer and exporter for 1 million units of currency with various strike prices leads to In-the-money, out-of-the-money and at-the-money situations with a premium of 2% on the spot price.

Spot Rate as on 10th Aug: 1 CAD = 5.21 CNH

Premium: 2%*5.21 CNH = 0.1042 CNH

Amount: 10,00,000 CAD

Long Call

Spot Rate	Exercise Price (Strike price)	Premium	Execute/Not Execute	Net Exchange rate	Transaction value
5.11	5.25	0.1042	Not Execute	$5.11 + 0.1042 = 5.2142$	CNH 5214200
5.25	5.25	0.1042	Not Execute	$5.25 + 0.1042 = 5.3542$	CNH 5354200
5.31	5.25	0.1042	Execute	$5.25 + 0.1042 = 5.3543$	CNH 5354200

The option has a strike price of 5.25 and a premium of 0.1042. The strategy involves monitoring the spot rate and comparing it to the strike price plus premium (5.3542). If the spot rate rises above this level, the option is exercised, resulting in a net exchange rate of 5.3542 and a transaction value of CNH 5354200. However, if the spot rate remains below 5.3542, the option expires unexercised, and the investor loses the premium paid.

Long Put

Spot Rate	Exercise Price (Strike price)	Premium	Execute/Not Execute	Net Exchange rate	Transaction value
5.11	5.25	0.1042	Execute	$5.25 - 0.1042 = 5.1458$	CNH 5145800
5.25	5.25	0.1042	Execute	$5.25 - 0.1042 = 5.1459$	CNH 5145800
5.31	5.25	0.1042	Not Execute	$5.31 - 0.1042 = 5.2058$	CNH 5205800

A long put option on the Chinese Yuan (CNH) gives the holder the right, but not the obligation, to sell CNH at a fixed price (5.25) in the future. This right is purchased for a premium of 0.1042. The strategy profits if the CNH's value declines below a certain point (5.1459), allowing the holder to sell CNH at a higher price than the prevailing market rate. Otherwise, the premium is lost.