

# Analysis of Sterling-HKD Exchange Rate Fluctuations and the Role of Forward Contracts

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**Abstract:** In the increasingly globalized financial landscape, the challenge of mitigating foreign exchange risks becomes paramount for investors. This research delves into the efficacy of forward contracts as a strategic tool to hedge against such risks, with a focus on the Sterling-HKD exchange rate fluctuations. Utilizing data and a comprehensive case study of a HK-based investment firm, this paper delineates both the advantages and potential challenges of employing forward contracts in investment portfolios. Our findings underscore the tangible benefits of forward contracts in shielding investments from volatile currency shifts. However, it is imperative for investors to be cognizant of the associated pitfalls. Through a comparative lens with existing literature, this paper offers invaluable insights and pragmatic recommendations for investors operating in tumultuous foreign exchange markets.

**Keywords:** Foreign Exchange Risk; Hedging; Forward Contracts

## 1. Introduction

In the domain of international finance, the complexity and interconnectivity of modern economic systems have ushered in multifaceted challenges, with foreign exchange risks emerging as a paramount concern for global investors. The dynamism inherent in the foreign exchange markets introduces uncertainty, especially with currencies like the Sterling and HKD, which despite their robust stature, are susceptible to sudden variances. Such fluctuations can significantly impinge on the anticipated returns of cross-border investments.

Amid these challenges, forward contracts have been posited as a potent financial instrument to mitigate unforeseen foreign exchange exposures. These derivatives, which stipulate

the execution of a currency transaction at a predetermined rate on a specified future date, are ubiquitously utilized by finance practitioners to hedge against currency volatility.

This research aims to bridge this gap, offering a rigorous examination of the applicability and effectiveness of forward contracts within the purview of the Sterling-HKD nexus. By leveraging quantitative analyses and insights from real-world case studies of HK's financial institutions, this study aspires to provide a nuanced understanding of the merits and potential pitfalls of incorporating forward contracts into international investment strategies.

## 2. Theoretical Background

### 2.1 Market Deterioration and Inflation

Market deterioration often reflects a confluence of deteriorating economic indicators, such as faltering consumer confidence, production declines, and strained geopolitical climates. In this unstable environment, inflation becomes a significant concern, characterized by escalating general prices of goods and services, thereby diluting purchasing power.

Understanding inflation requires examining theories like Demand-Pull and Cost-Push Inflation. In the scenario where a central authority like the Federal Reserve responds by adjusting interest rates, it's crucial to anticipate the domino effect on consumer expenditure, corporate borrowing, and overall economic health, as these will influence the investment climate and currency stability.

### 2.2 Federal Reserve's Role

The Federal Reserve's response to inflation is a delicate balancing act. By manipulating the federal funds rate, the Fed indirectly sets the tempo for various economic activities, influencing everything from consumer

spending to home-buying to business investments. This policy response, guided by principles such as the Taylor Rule, aims to temper inflation by cooling down economic activity. However, for investors, particularly in HK's investment companies, these actions signal a need for strategic adjustments. Heightened rates mean not only altered investment landscapes but also potential currency exchange risks, especially for assets tied to the sterling's performance.

### 2.3 Currency Impact

The ripples of the Fed's adjustments on interest rates extend to the foreign exchange market, particularly influencing the value of the US dollar and its counterparts like the sterling. An interest rate increase can spark a rush among investors to convert assets into the US dollar, seeking improved returns. This demand surge enhances the dollar's appeal, conversely depreciating the value of the sterling.

For HK investment entities, this dynamic is critical. A depreciating sterling poses transaction risks, particularly for investments reliant on the GBP/HKD exchange rate. The strategic use of financial instruments like forward contracts becomes paramount here to hedge against the potential negative spiral from sterling's fall, safeguarding investment returns.

## 3. Foreign Exchange Risks

In the realm of international finance, foreign exchange risk emerges as a predominant factor influencing investment strategies and decisions. This risk, often synonymous with currency risk or exchange rate risk, is a financial risk posed by an exposure to unanticipated changes in the exchange rate between two currencies. For investment companies operating across borders, particularly those in HK with investments tied to the sterling, these risks are of paramount concern, as they directly influence the profitability and value of their foreign investments.

### 3.1 Defining Foreign Exchange Risk

Foreign exchange risk is the potential for economic losses due to devaluation of the foreign currency against the domestic currency. When HK-based companies invest in UK markets, for instance, they are subject to this risk because their potential returns,

denominated in pounds, could diminish in value relative to the HKD before they are repatriated. The nature of foreign exchange risk is threefold, involving transaction risk, translation risk, and economic risk. While each poses unique threats to a company's financial health, this paper emphasizes transaction risk due to its immediate impact on cash flows and investment returns.

### 3.2 Transaction Risks

Transaction risk, a subset of foreign exchange risk, materializes from the time delay between entering into a contract and settling it. The currency exchange rate could change unfavorably during this period, affecting companies' financial positions. In the context of our scenario, the HK-based company engaging in transactions denominated in sterling is vulnerable. This risk is especially palpable in our case study, where investors expect to receive 10 million pounds by February 2024.

Given the current exchange rate, the expectation is to convert these earnings into approximately HKD 96.5 million. However, with the potential decline in the sterling's value (say, to £1: \$9), the same 10 million pounds convert to only HKD 90 million, resulting in a significant unrealized loss.

This manifestation of transaction risk is a crucial consideration for companies involved in international trade or investment, as the fluctuation in exchange rates between the contract's signing and its settlement can drastically impact profit margins. More critically, in a floating exchange rate regime, such as that between the sterling and the HKD, the potential for abrupt and sharp fluctuations increases, exacerbating the transaction risk. Consequently, companies often seek strategies to mitigate this risk and shield their investments and revenue streams from the volatility of currency markets.

## 4. Hedging through Forward Contracts

Navigating the treacherous waters of foreign exchange risks requires strategic planning and risk management techniques. Among these, hedging emerges as a preeminent strategy, allowing investors to mitigate potential losses resulting from currency value fluctuations. Specifically, within the domain of hedging, forward contracts represent a critical financial

instrument, offering a refuge from the storm of currency volatility. This section delves into the mechanics of hedging through forward contracts and explores a practical application in the context of a HK investment company operating in the sterling-dominated market.

#### 4.1 Strategy Overview

Hedging, in the realm of financial strategies, is akin to taking out an insurance policy for financial transactions. If you speculate that you might incur a loss in a particular investment due to adverse currency exchange movements, you can initiate a hedge to offset this potential loss. The goal of hedging is not to generate significant profits but rather to protect against substantial losses. It creates a scenario where, by making an opposing investment, the gains balance out the losses, resulting in a net-neutral financial impact.

Hedging through forward contracts, particularly, is a common practice in foreign exchange risk management. By locking in exchange rates for future transactions, investors shield themselves from the whims of volatile currency fluctuations, providing stability and predictability for international investments.

#### 4.2 Forward Contracts

A forward contract is a customized, privately negotiated agreement to buy or sell an asset at a specified price on a future date. Unlike standard futures contracts, which are traded on an exchange, forward contracts' terms, like the amount, transaction date, and conditions, are tailor-made to the needs of the parties involved, offering a flexible yet binding arrangement.

In the context of foreign exchange, a forward contract might stipulate the sale of a certain amount of sterling against the HKD at a predetermined rate, set to occur on a specific future date. This approach is particularly beneficial for investors who seek to lock in current exchange rates to avoid the consequences of unfavorable rate changes in the future.

#### 4.3 Practical Application

Consider a scenario where a HK-based investment company expects a receipt of 10 million pounds from its UK investments by February 2024. Given the prevailing exchange rate uncertainty, there's potential risk that the

pound might depreciate against the HKD. To hedge against this possibility, the company enters into a forward contract.

Under this contract, the company agrees to sell its 10 million pounds in February 2024, receiving in exchange HKDs at a rate agreed upon today. Let's assume the current rate locked by the forward contract is £1: \$9.68. This rate becomes the pivot for future transactions, irrespective of market-driven rate changes.

By the agreed date, several outcomes are possible. If the pound depreciates to, say, £1: \$9, instead of facing a loss from the reduced conversion rate, the company still receives its due based on the £1: \$9.68 rate, effectively shielding its revenue. On the other hand, if the pound appreciates, the company foregoes any additional profit it might have earned without the hedge. This trade-off, where potential downside is minimized at the expense of possible upside, epitomizes the hedging strategy.

Through this forward contract, the investment company secures a predictable financial outcome, avoiding pitfalls associated with the transaction risks of foreign exchange. This calculated approach, despite forgoing potential gains, underscores a disciplined risk management strategy, fortifying the company's financial prospects against market volatilities.

### 5. Comparative Analysis

In the complex arena of financial instruments utilized for risk management, particularly in hedging against foreign exchange risks, both forward contracts and futures stand out as prominent tools. This comparison is crucial for investment companies, like those based in HK with sterling-denominated assets, to make informed decisions that align with their strategic objectives and risk tolerance levels.

#### 5.1 Forwards vs Futures

**Forwards:** A forward contract represents a private agreement between two parties, binding them to the future transaction of an asset at a specified rate on a set date. One of the primary advantages of forward contracts is their flexibility; terms are customizable, allowing parties to set conditions that precisely match their needs and risk profiles. This adaptability makes forwards particularly appealing to companies with specific trade

requirements or those dealing with large sums of money in foreign currency, like the investment company in our scenario.

However, this customization has its drawbacks. Forward contracts typically do not trade on centralized exchanges, leading to increased counterparty risk or credit risk. There's also a lack of liquidity, as these contracts are unique to the involved parties, making secondary selling challenging. These factors can introduce significant risks, particularly in volatile foreign exchange markets.

**Futures:** In contrast, futures are standardized contracts to buy or sell an asset at a predetermined price at a specified time in the future. Unlike forwards, they trade on organized exchanges, providing the benefits of reduced credit risk due to the intermediation of the exchange clearinghouse. Additionally, futures contracts offer more liquidity, allowing investors to easily enter and exit positions, a feature that forward contracts distinctly lack.

However, the standardized nature of futures means they lack the customizable aspect of forwards, potentially making them less suitable for investors with very specific hedging needs. Moreover, futures require a daily settlement of gains and losses, a process known as marking to market, which could result in a higher operational burden and unforeseen cash flow issues.

**Suitability Based on Investor Needs:** The choice between using forwards and futures hinges on several factors, including the investor's risk management strategy, liquidity preferences, tolerance for credit risk, and the need for contractual flexibility.

## 5.2 Credit Risk and Liquidity in Forward Contracts

One of the significant downsides of forward contracts is the absence of a centralized clearinghouse, increasing the credit risk, i.e., the risk that a counterparty might default on the contract. This scenario could arise if, for example, the counterparty experiences financial distress or adverse market conditions impacting their cash flow or asset values. For an entity in HK hedging significant amounts of sterling, counterparty default could represent substantial financial losses.[1]

Mitigating this credit risk requires thorough counterparty credit assessments, demanding guarantees, or collateral arrangements to back the contract. Despite these measures, the risk never entirely dissipates, as market conditions can rapidly change, potentially affecting the counterparty's creditworthiness.[2]

Additionally, forward contracts face liquidity challenges due to their bespoke nature. Unlike standardized futures traded on exchanges, forwards are unique agreements between two parties, complicating the process of finding buyers should one party wish to exit the contract. This reduced liquidity can represent a risk, particularly in fast-moving currency markets, where the ability to quickly respond to market changes is crucial.

Investors must balance the benefits of customized agreements against the potential risks associated with credit and liquidity. In many cases, the strategic benefits of a forward contract, particularly for hedging specific foreign exchange exposures, may outweigh the associated risks. However, these considerations require careful assessment in light of the investor's overall risk management strategy and market position.

## 6. Conclusions

Navigating the intricacies of foreign exchange risks necessitates a nuanced understanding of the financial instruments at an investor's disposal. Within this context, both forward contracts and futures have emerged as vital tools for hedging against potential risks, especially in the fluctuating currency markets.

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