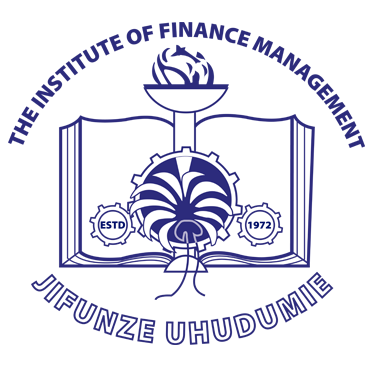
**THE INSTITUTE OF FINANCE MANAGEMENT**



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| **Module Name:** | INTERNATIONAL FINANCE |
| **Module Code:** | AFU-08504 (Coursework Assignment) |
| **Department** | BANKING AND FINANCE |

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**QUESTION ONE:**

WORKINGS:

### I) Express £ in terms of €:

**€ / £ Bid Spot:** £/€ Ask Spot1​=0.41​=2.5

**€ / £ Ask Spot:** £/€ Bid Spot1​=0.251​=4.0

### ii) Cross Rate for TZS/€:

**TZS / € Bid Spot:** €/£ Ask Spot TZS/€ Bid​=4.02500​=625

**TZS / € Ask Spot:** €/£ Bid Spot TZS/£ Ask​=2.52600​=1040

### iii) 1 Year Forward Rate:

**€ / £ 1 Year Forward Bid:** £/€ Ask 1 Year Forward1​=0.801​=1.25

**€ / £ 1 Year Forward Ask:** (€/£ 1 Year Forward Bid)1​=0.51​=2.0

### iv) Cross Rate in Forward Rates for TZS/€ 1 Year Forward:

**TZS / € 1 Year Forward Bid:** €/£ 1 Year Forward Ask TZS/£ 1 Year Forward Bid​=2.02650​=1325

**TZS / € 1 Year Forward Ask:** €/£ 1 Year Forward Bid TZS/£ 1 Year Forward Rate​=1.252690​=2152

**SOLUTIONS**

**1. Calculate the value in TZS to a customer who wishes to sell €5,000 to the dealer spot.**

Value in TZS=1 Euro Rate Amount in Euros×Exchange Rate​

=15000×625

=3,125,000TZS

**2.The value in € to a customer who wishes to sell TZS5,000,000 to the dealer one year forward.**

Value in Euros=1 Year Forward Rate Amount in TZS×1 Euro Rate​

=13255,000,000×1​ ≈ 3773.5849Euros

### 3. Calculate the value in TZS to the dealer upon selling €5,000 to a customer spot.

Value in TZS=1 Euro Rate Amount in Euros×Spot Rate​

=15000×1040​

=5,200,000TZS

Value in TZS=15000×1040​=5,200,000TZS

### 4. The value in € to the dealer upon selling TZS5,000,000 to a customer one year forward.

Value in Euros= Amount in TZS​ / 1 Year Forward Rate

=5,000,000​ / 2152 ≈ 2323.4201Euros

= 2323.4201Euros

**5. The cost in TZS to a customer who wishes to buy €5,000 from the dealer spot.**

Given:

* € / £ Bid Spot: 2.5 (from the expression of £ in terms of €)
* € / £ Ask Spot: 4.0 (from the expression of £ in terms of €)
* € / TZS Ask Spot: 1040 (from the calculation in the cross rate for TZS/€ bid spot)

The customer wishes to buy €5,000. We can calculate the cost in TZS using the Ask rate, as the customer is buying euros from the dealer:

Cost in TZS=Amount in Euros×Ask Rate

Cost in TZS=5000euros×1040TZS/€

Cost in TZS=5,200,000TZS

So, the cost in TZS to a customer who wishes to buy €5,000 from the dealer spot is TZS 5,200,000.

**6. The cost in € to a customer who wishes to buy TZS5,000,000 from the dealer one year forward.**

1 € = TZS 2152

? € = TZS 5000000

= (TZS 5000000 X 1 € ) / TZS 2152

=€ 2323.4201

### 7. The cost in TZS to the dealer upon buying €5,000 from a customer spot.

Given:

* € / £ Bid Spot: 2.5 (from theexpression of £ in terms of €)
* € / £ Ask Spot: 4.0 (from the expression of £ in terms of €)
* € / TZS Bid Spot: 1040 (from the calculation in the cross rate for TZS/€ ask spot)

The dealer is buying €5,000 from a customer, so the cost to the dealer is calculated using the Bid rate:

Cost in TZS to the Dealer=Amount in Euros×Bid Rate

Cost in TZS to the Dealer=5000euros×1040TZS/€

Cost in TZS to the Dealer=5,200,000TZS

Therefore, the cost in TZS to the dealer upon buying €5,000 from a customer spot is TZS 5,200,000.

### 8. The value in € to the dealer upon buying TZS5,000,000 from a customer one year forward.

Given:

* TZS / € Ask Spot: 1040 (from the calculation in the cross rate for TZS/€ ask spot)
* TZS / € 1 Year Forward Ask: 2152 (from the calculation in the cross rate in forward rates for TZS/€)

The dealer is buying TZS5,000,000 from a customer one year forward, so the value to the dealer is calculated using the Year Forward Ask rate:

Value in Euros to the Dealer=Amount in TZS×1 Year Forward Ask Rate

Value in Euros to theDealer=5,000,000TZS×21521​€/TZS

Value in Euros to the Dealer≈2323.42€

Therefore, the value in € to the dealer upon buying TZS5,000,000 from a customer one year forward is approximately € 2323.42.

**9. Use mid rates to determine the one-year forward premium or discount on the £ relative to the €.**

Mid rate for £/€ = (0.25 + 0.40) / 2 = 0.325

1-year forward mid rate for £/€ = (0.50 + 0.80) / 2 = 0.65

Forward premium or discount = (Forward rate - Spot rate) / Spot rate = (0.65 – 0.325) / 0.325

= 0.3 or 30%

Therefore, the one-year forward premium on the £ relative to the € is 30%.

**10. Use mid rates to determine the one-year forward premium or discount on the TZS relative to the €.**

Mid rate for TZS/€ = (625 + 1040) / 2 = 832.5

1-year forward mid rate for TZS/€ = (1325 + 2152) / 2 = 1738.5

Forward premium or discount = (Forward rate – Spot rate) / Spot rate

= (1738.5 – 832.5) / 832.5

= 1.086 or 108.6%

Therefore, the one-year forward premium on the TZS relative to the € is 108.6%.

**QUESTION TWO**

**1. The risk and return associated with investment in each of the individual capital**

**markets.**

**I) Risk and return of south Africa**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| P | Xi | Xi -mean | (Xi -mean)^2 | P(Xi -mean)^2 |
| 0.1 | 10% | -2.7% | 7.29% | 0.729% |
| 0.6 | 12% | -0.7% | 0.49% | 0.293% |
| 0.3 | 15% | 2.3% | 5.29% | 1.587% |
|  | Mean = 12.7% |  |  | ∑P(Xi -mean)^2 =2.61 |

**Variance (δ^2) =** ( ∑P(Xi -mean)^2 )/ n-1

= 2.61/ (3-1)

= 1.305

**Standard deviation =**  √Variance

= √(1.305)

=1.142

Therefore , the Risk of South Africa is 1.305 and the return of South Africa is 12.7%

ii) Risk and Return of Tanzania

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| P | Xi | Xi -mean | (Xi -mean)^2 | P(Xi -mean)^2 |
| 0.1 | 22% | 1.2% | 1.44% | 0.144% |
| 0.6 | 23% | 2.2% | 4.84% | 2.904% |
| 0.3 | 16% | 4.8% | 23.04% | 6.912% |
|  | Mean = 20.8% |  |  | ∑P(Xi -mean)^2 =9.96% |

**Variance (δ^2) =** ( ∑P(Xi -mean)^2 ) / n-1

= 9.96/ (3-1)

= 4.98

**Standard deviation =**  √Variance

= √(4.98)

=2.232

Therefore , the Risk of South Africa is 4.98% and the return of South Africa is 20.8%

**iii) The Risk and return of Tanzania**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| P | Xi | Xi -mean | (Xi -mean)^2 | P(Xi -mean)^2 |
| 0.1 | 10% | -2.7% | 7.29% | 0.729% |
| 0.6 | 12% | -0.7% | 0.49% | 0.293% |
| 0.3 | 15% | 2.3% | 5.29% | 1.587% |
|  | Mean = 12.7% |  |  | ∑P(Xi -mean)^2 =2.61 |

**Variance (δ^2) =** ( ∑P(Xi -mean)^2 )/ n-1

= 2.61/ (3-1)

= 1.305

**Standard deviation =**  √Variance

= √(1.305)

=1.142

Therefore , the Risk of Tanzania is 1.305 and the return of Tanzania is 12.7%

ii) Risk and Return of Kenya

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| P | Xi | Xi -mean | (Xi -mean)^2 | P(Xi -mean)^2 |
| 0.1 | 20% | 0.6% | 0.36% | 0.036% |
| 0.6 | 22% | 2.6% | 6.76% | 4.056% |
| 0.3 | 14% | -5.4% | 29.16% | 8.748% |
|  | Mean = 19.4% |  |  | ∑P(Xi -mean)^2 =12.84% |

**Variance (δ^2) =** ( ∑P(Xi -mean)^2 ) / n-1

= 12.84/ (3-1)

= 6.42

**Standard deviation =**  √Variance

= √(6.42)

=2.534

Therefore , the Risk of Kenya 6.42% and the return of Kenya is 19.4%

**2) Based on the above information, calculate the risk and return of the proposed international**

**portfolio. Calculate the coefficient of variation of the above portfolio and state what it**

**measures**

**SOLUTION**

**Expected return of portfolio**

E(r)p = W1E(r)1 + W2E(r)2 + W3E(r)3

mean Xp = W1X1 + W2X2 + W3X3

= (6.333×12.7%) + (0.333×20.8%) + (0.333×19.4%)

= 17.615 7%

**Risk of portfolio**

δ^(2)p = W1^(2)δ1^(2) + W2^(2)δ2^(2) + W3^(2)δ3^(2) + 2W1W2P1P2δ1δ2 + 2W2W2P2P3δ2δ3 + 2W1W3P1P3δ1δ3

***since there is no correlation***

δ^(2)p = W1^(2)δ1^(2) + W2^(2)δ2^(2) + W3^(2)δ3^(2)

= ((0.333^2) x 1.205) + ((0.333^2) x 4.98) + ((0.333^2) x 6.42)

= 1.40885%

Therefore, Risk of the portfolio **1.40885%,** while return of the portfolio is **17.6157%**

**Coefficient of variation of portfolio**

**Solution:**

CV = Standard Deviation (δp) of the portfolio / Expected Return of the portfolio

CV = ((√ (1.40885)) / 17.6157) x 100

CV = (1.18695 / 17.6157 ) x 100

CV = 6.738%

Therefore, the CV (Coefficient of variation) is 6.738%

- Also the CV measures the Risk to reward ration of each security and develops on investment decisions

- Since we have lower CV, it provides the most optimal risk-to-reward ratio with low volatility but high returns

**QUESTION THREE:**

Assessing and managing political risk in foreign projects is crucial for a parent firm considering investment opportunities in a foreign country. ***Political risk*** refers to the potential for adverse political events or conditions that could impact the profitability, stability, or success of an investment. Here are various approaches to assess and manage political risk:

**Political Risk Assessment:** Political risk assessment involves a comprehensive evaluation of the political environment in a foreign country to mitigate potential challenges for a parent firm's investments. This process includes in-depth country analysis, encompassing factors such as stability, governance structures, legal frameworks, and historical political events. Through thorough examination, the firm gains insights into the potential risks and opportunities within the political landscape. Additionally, political stability indicators, such as widely recognized indices like the Political Risk Services (PRS) Index or the World Bank's Worldwide Governance Indicators, are employed to quantify and measure the stability of a country's political environment. These indicators provide valuable quantitative data, aiding decision-makers in assessing the level of political risk associated with potential investments and informing strategic decisions to enhance the firm's resilience in foreign markets.

**Government Relations and Due Diligence:** In the context of political risk management, government relations and due diligence play pivotal roles in ensuring a parent firm's successful engagement in foreign markets. Firstly, building positive relationships with local government officials and authorities is emphasized as it facilitates a nuanced understanding of the political landscape and potential risks. By fostering such connections, the firm gains insights into local political dynamics and regulatory frameworks, enhancing its ability to navigate complex environments. Additionally, conducting comprehensive due diligence is crucial. This involves a thorough examination of the political climate, encompassing the stability of the government, political parties, and the regulatory environment. Through meticulous research and analysis, the firm can identify potential challenges and opportunities, enabling informed decision-making and proactive strategies to mitigate political risks. Together, these approaches underscore the importance of proactive engagement and thorough assessment in managing political risks associated with foreign investments.

**Insurance and Hedging Strategies:** In the realm of political risk management for foreign investments, insurance and hedging strategies serve as crucial mechanisms to safeguard a parent firm's financial interests. Political risk insurance emerges as a key tool, allowing the firm to protect itself against potential financial losses stemming from adverse government actions, expropriation, or political violence in the host country. This proactive measure provides a financial safety net, mitigating the impact of unpredictable political events on the firm's investments. Additionally, currency hedging strategies are employed to counter the risks associated with adverse currency movements triggered by political events. By implementing such hedging mechanisms, the firm seeks to minimize the impact of currency fluctuations on its financial performance, thereby enhancing overall resilience in the face of political uncertainties. Together, political risk insurance and currency hedging strategies contribute to a comprehensive risk management approach, bolstering the firm's ability to navigate challenging political landscapes in foreign markets.

**Legal Protection:** Legal protection strategies form a critical component of a parent firm's approach to managing political risks associated with foreign investments. Leveraging investment treaties is highlighted as a key measure, wherein the firm can take advantage of bilateral or multilateral agreements that extend legal protections to foreign investors. These treaties often include provisions safeguarding against arbitrary government actions and expropriation. Additionally, emphasizing the importance of robust contractual agreements, the firm is advised to ensure that arrangements with local partners and stakeholders incorporate dispute resolution mechanisms and specific provisions designed to address potential political risk events. By proactively structuring legal frameworks through treaties and contractual agreements, the parent firm enhances its ability to seek legal recourse and protection in the event of unforeseen political challenges, contributing to a more secure and resilient investment environment in the foreign market.

**Diversification:** This strategies play a vital role in mitigating political risks associated with foreign investments for a parent firm. Portfolio diversification involves spreading investments across multiple countries or regions, thereby reducing the concentration of risk in any single location. By distributing investments geographically, the firm minimizes its exposure to the political dynamics of a particular country, thus enhancing overall resilience. Similarly, industry diversification is emphasized as a means to decrease reliance on a single sector within a foreign country. Investing in various industries allows the firm to navigate economic and political challenges more effectively, as the performance of different sectors may be influenced by distinct factors. In essence, both portfolio and industry diversification contribute to a well-rounded risk management strategy, enabling the firm to better withstand the impact of political uncertainties and fluctuations in specific regions or sectors.

**Scenario Planning:** This is a strategic approach to managing political risk in foreign projects by envisioning and preparing for different plausible future scenarios. This methodology involves identifying and analyzing various potential political developments that could impact the firm's investments and then formulating strategies to respond to each scenario. It goes beyond traditional risk management by encouraging organizations to think critically about uncertainties and disruptions in the political landscape. Through scenario planning, a parent firm can assess the potential impact of different political events, such as changes in government policies, regulatory frameworks, or geopolitical shifts. By considering multiple future possibilities, the firm can develop flexible strategies that allow for adaptability and resilience in the face of evolving political conditions. This proactive approach helps the organization to not only anticipate risks but also seize opportunities that may arise in different political contexts, ultimately contributing to more effective decision-making and risk mitigation.

**Local Partnerships:** Engaging in local partnerships and joint ventures is a strategic approach for a parent firm to effectively manage political risk in foreign projects. By forming collaborations with local entities, the firm can leverage their insights and understanding of the intricate political landscape, gaining valuable perspectives on potential risks and challenges. Local partners can provide essential contextual knowledge regarding political dynamics, regulatory frameworks, and cultural nuances that may impact the firm's operations. This approach enhances the parent firm's ability to navigate political uncertainties and mitigate risks more effectively. Additionally, through joint ventures, the firm shares responsibilities and liabilities, distributing the impact of political events across multiple stakeholders. This collaborative strategy not only facilitates a deeper understanding of the local environment but also fosters relationships that can prove beneficial in navigating complex political landscapes, ultimately contributing to the overall success and sustainability of the foreign projects.

**Continuous Monitoring:** The strategy of continuous monitoring is instrumental in the ongoing management of political risks associated with foreign projects. Establishing a system for political intelligence involves consistently and systematically monitoring political developments in the host country. This entails staying informed about changes in government policies, regulatory frameworks, and other political factors that may impact the firm's investments. By regularly gathering intelligence, the parent firm can identify potential risks in a timely manner and adapt its strategies accordingly.

In addition to political intelligence, the implementation of early warning systems is crucial for detecting and responding to emerging political risks. These systems are designed to provide timely alerts and indicators when there are signs of potential disruptions or changes in the political environment. Early detection allows the firm to proactively assess the situation, adjust its strategies, and take preventive measures to minimize the impact of political risks on its foreign projects.

Together, political intelligence and early warning systems contribute to a dynamic and responsive risk management approach, empowering the parent firm to stay ahead of political developments and make informed decisions to protect its investments and interests in foreign markets.