Evaluating Currency Exposures and Hedging Strategies Amidst Global Economic Challenges: A Six-Month Outlook for ABC Firm

Krish Gupta s3865829

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Executive Summary

Due to its widespread global operations, Firm ABC, an Australian-based agricultural machinery manufacturer, confronts pressing economic and geopolitical challenges. Elevated global inflation and fluctuating interest rates bring about operational and financial risks, intensified by its international supply chain and diverse clientele. Additionally, a capricious geopolitical scene introduces further complexity. Future spot rate predictions foresee AUD appreciating against NZD and USD but depreciating vis-a-vis GBP, EUR, and CAD. Due to its international reach, Firm ABC faces multifaceted currency-related risks: transactional, translational, and economic. Among the evaluated hedging strategies, Forward Hedging is advised for NZD receivables and JPY & USD payables, delivering significant savings. Money Market Hedging provides better results for CAD receivables. Conversely, GBP, EUR receivables, and EUR payables are recommended to remain unhedged. Additionally, Options Hedging allows the firm to benefit from favourable rate movements while securing a guaranteed rate. In conclusion, Firm ABC should employ a mixed approach, integrating Forward and Options Hedging. This dual-strategy not only furnishes protection against adverse shifts but also imparts flexibility. By adopting active hedging, the firm can stabilize its future cash flows, modify investor perceptions concerning its risk, potentially lowering capital costs, and safeguard its overall value, ensuring the preservation of shareholder wealth.

Economic and Geopolitical Exposure Impact on Firm ABC

Firm ABC, a prominent agricultural machinery manufacturer based in Australia, is strategically placed in the global market with its extensive network of suppliers from countries like Japan, Germany, and the USA, and its diversified clientele across New Zealand, Canada, the UK, and Italy. However, the current global economic climate, especially the rising trend of high inflation rates, widespread interest rate hikes, and the volatile geopolitical landscape, brings the firm multifaceted challenges and exposures.

Firstly, the global-wide high inflation rates directly affect Firm ABC's operations. With increased costs of raw materials stated in ABARES 2023 Australian Agriculture Snapshot, vital for the manufacturing process, can be exacerbated by the firm's international supply chain, particularly given its payment obligations in multiple currencies, like JPY, EUR and USD, over the upcoming months. The company's potential inability to pass these augmented production costs to the end consumer could erode its profit margins. Furthermore, as inflation erodes consumers' purchasing power, this could lead to subdued demand for Firm ABC's machinery, especially in countries with more pronounced inflation (RBA 2023). The inflation disparity between Australia and its trade partners can dent the firm's export competitiveness. Coupled with business uncertainty and high inflation rates can disrupt the company's long-term growth strategy, affecting investment decisions and potential expansions.

Global-wide interest rate hikes introduce another layer of complexity to Firm ABC's financial management. With two significant payments due in EUR to their German supplier and another substantial payment in USD to their US supplier, the company's borrowing costs could rise. If the Australian dollar weakens in this environment, the firm's payment obligations in foreign currencies might become more expensive, impacting the firm's liquidity and overall financial health. Moreover, their 2,000,000 EUR term deposit in the UK might be affected by rate changes, influencing the return on this investment. On the consumer front, higher interest rates could deter spending on capital-intensive products like agricultural machinery, diminishing Firm ABC's sales (IBISWorld 2023). A potential appreciation of the Australian dollar due to interest rate dynamics could further hamper the firm's export competitiveness.

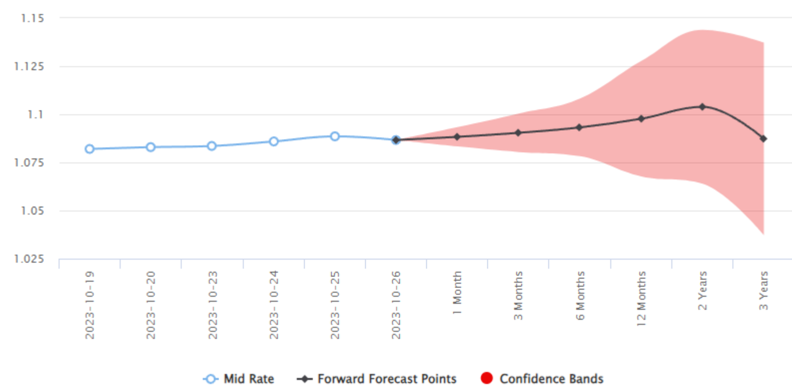
Lastly, the ever-evolving global geopolitical environment poses both risks and opportunities. The company's vast export portfolio exposes it to trade policies and potential tariffs (ACCC 2021). A sudden geopolitical event might lead to supply chain disruptions, especially concerning Firm ABC's pending payments and receivables in diverse currencies like NZD, CAD, GBP, and EUR (KPMG 2020). Unforeseen changes in trade regulations, intellectual property rights, or environmental standards could add operational challenges, while market volatility triggered by geopolitical unrest could impact consumer demand and confidence.

With its extensive global operations, Firm ABC is exposed to global economic and geopolitical challenges. Given its international procurement and sales activities, proactive risk management, financial hedging, and agile strategies are essential to navigate these complexities.

Forecasted Future Spot Rates for Firm ABC

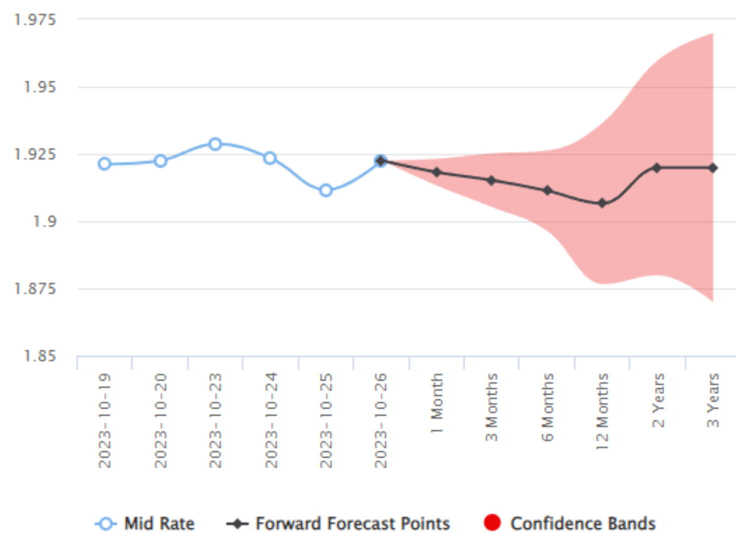
AUD/NZD Forecast

The Fundamental approach used within our quantitative analysis in Appendix 1 predicts that the Australian Dollar will strengthen against the New Zealand Dollar in the upcoming months. The forecast indicates an exchange rate of approximately 1.0838, with a notable low standard deviation of 1.2313. Pound Sterling Live (2023) also expects the rate to be around 1.0849 within a month. Conversely, Gov Capital (2023) anticipates a surge to 1.747077635808 by the end of the year. The geopolitical dynamics between Australia and New Zealand, trade partnerships, and regional stability play a role. Both countries, closely tied in the Pacific region, will influence each other's currencies based on their respective economic performances. Therefore, we can expect AUD to appreciate against the NZD.



AUD/GBP Forecast

The Forward Rate in our analysis, seen in Appendix 2, shows a standard deviation 2.2250, predicting the AUD/GBP rate to be 0.511. This differs slightly from the Commonwealth Bank's (2023) projection of 0.55 GBP by the end of 2023 and Westpac's (2023) prediction of 0.54 GBP for the same period. Meanwhile, Wallet Investor (2023) is more pessimistic, anticipating a rate of around 0.521 as of October 24, 2023. Brexit aftermath and the UK's new trade partnerships could significantly impact GBP. On the other hand, Australia's economic resilience and adaptability to global challenges will determine the AUD's performance. The forecasts vary, but the general sentiment leans towards AUD's depreciation against the GBP.



AUD/USD Forecast

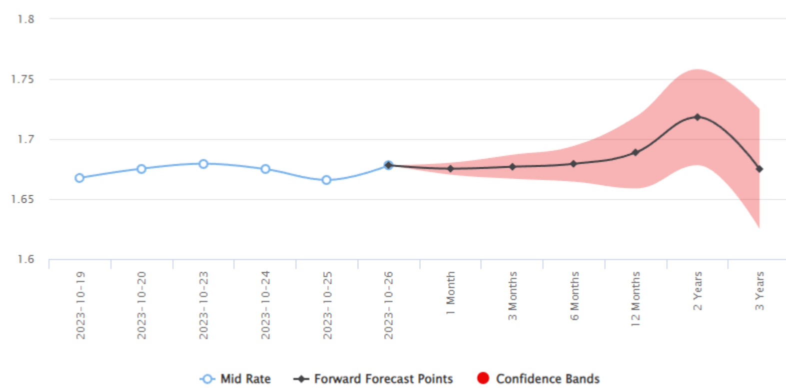
Given the ongoing momentum indicators, AUD/USD may lean towards a ”sell on rallies” position for 2023. The AUD’s strength is buoyed by inflation figures and the Reserve Bank of Australia’s hawkish stance. According to the Fundamental approach in our analysis in Appendix 3, the predicted rate is 0.644 with a standard deviation of 3.0079. The pair’s resistance is at 0.6400, but a break could see it reaching 0.6429. Factors like the RBA’s hawkish stance, which contrasts with the US Federal Reserve’s expected aggressive rate hikes, will be influential. Australia’s global stance, especially its relationship with major economies like China and the US, can significantly affect this pair. Hence, we anticipate the Australian Dollar appreciating against the US Dollar.

AUD/JPY Forecast

The predominant sentiment for the AUD/JPY pair is bearish for 2023. Following a 15% rise in 2022, experts believe a long-term decline is on the horizon for the upcoming year. Using the Random Walk model within our analysis seen in Appendix 4, with the lowest deviation at 3.5094, the forecasted rate is 94.38. In contrast, Westpac and NAB predict 96.5 and 87 cents by December 2023, respectively. Therefore, we can say that AUD will still be appreciated over JPY.

AUD/EUR Forecast

Fluctuations are anticipated in the Euro to Australian Dollar exchange rate throughout 2023. The Fundamental approach in our analysis, which can be viewed in Appendix 5, with its lowest standard deviation of 2.3865, projects an AUD/EUR rate of 0.5985. According to market pricing, the rate might be around 1.6667 monthly and 1.6684 in three months. The EU’s recovery from the pandemic, combined with its geopolitical stance on issues like climate change and trade, can boost the EUR. Australia’s trade agreements with EU member countries and its global stance on similar issues will influence the AUD. Hence, the AUD is projected to depreciate against the EUR.



AUD/CAD Forecast

In 2023, the Canadian Dollar appreciated 6.42% against the Australian Dollar, leading to a 6.04% decrease in the AUD/CAD exchange rate. As per the Fundamental Approach's prediction in Appendix 6, with a deviation of 1.7891, the forecasted rate for AUD/CAD is set at 0.8756. Canada's position as a major oil exporter and its relationship with its North American counterparts, particularly the US, will drive the CAD. Australia's stance on global energy markets will impact the AUD, especially its coal exports and the shift towards renewable energy. Hence, AUD is expected to depreciate against CAD.

Given the diverse forecasts and inherent volatility of currency exchange rates, Firm ABC must judiciously approach its hedging and risk management strategies. By monitoring these rates and using a combination of different hedging techniques, the company can potentially mitigate its exposure to adverse currency movements.

Evaluation of Firm ABC's exposure

Firm ABC has a widespread international presence, exposing it to many currency-related risks: transactional, translational, and economic. As the world grapples with uncertainties, a proactive approach to these exposures must be taken to ensure the firm's profit margins, liquidity, and overarching strategic goals.

Hedging Strategies Explored

Forward Hedging:

- **Advantages:** This method secures an exchange rate for upcoming transactions, clarifying future cash flows. It is a direct approach that eradicates currency risks.
- **Disadvantages:** Should the market move favourably, Firm ABC misses out. Once settled upon, it lacks flexibility.
- **Overall Impact:** With stable anticipated cash flows, the cost of capital could be reduced due to increased earnings predictability.

Money Market Hedging (MMH):

- **Advantages:** MMH uses the money market to safeguard against potential foreign exchange liabilities or entitlements. It acts as a buffer against negative currency shifts.
- **Disadvantages:** Compared to forward Hedging, it is more intricate and may sometimes need to be more practical due to fluctuating interest rates across nations.
- **Overall Impact:** MMH offers similar benefits to forward hedging, possibly reducing capital costs.

Options Hedging:

- **Advantages:** This provides the choice (without obligation) to exchange currency at a predetermined rate, setting a floor and allowing favourable market gains.
- **Disadvantages:** It demands an initial premium, which can be expensive, especially over extended durations.
- **Overall Impact:** While it curtails cash flow volatility, the premium might increase the capital cost.

No Hedging:

- **Advantages:** The absence of preliminary costs or charges and the ability to fully leverage beneficial market shifts.
- **Disadvantages:** It leaves the company vulnerable to currency risks, potentially leading to considerable fiscal setbacks if rates go south.
- **Overall Impact:** This could heighten the unpredictability of cash flows, possibly augmenting capital costs owing to escalated risks.

Repercussions on Cost of Capital and Enterprise Value

While defending against detrimental currency shifts, Hedging may also curtail the weighted average cost of capital (WACC). With diminished risks, investors may settle for smaller returns, cutting equity costs. Simultaneously, attractive borrowing rates can bring down debt expenditures. This cumulative impact can boost the company's worth.

Specific Recommendations for Firm ABC

By comparing the most favourable results across different hedging strategies as seen calculated within Appendices 7-13:

- NZD Receivables: Forward Contracts heighten outcomes by $1,787,000.
- CAD Receivables: MMH is more fruitful by $2,961,270.29.
- GBP & EUR Receivables: It is advisable not to hedge.
- JPY & USD Payables: Forward Hedging presents savings, with the USD savings amounting to $190,006.58.
- EUR Payables: Hedging is not beneficial.

In juxtaposition with a non-hedging stance:

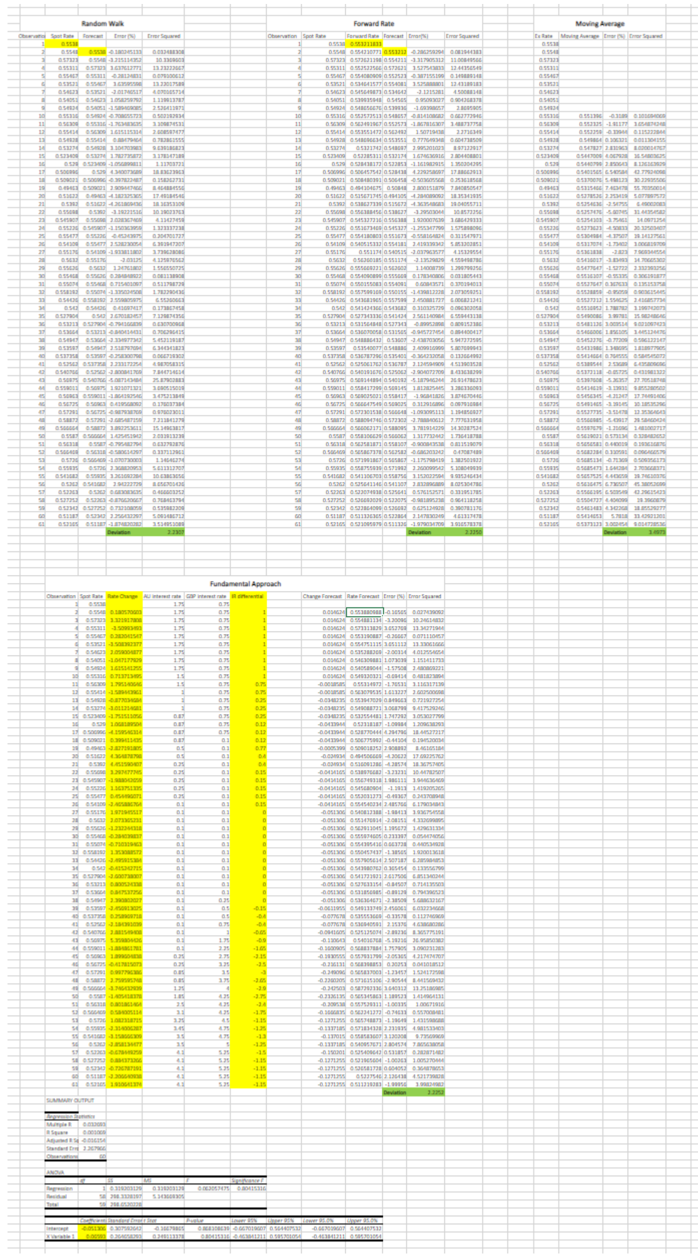
- Forward Contracts heighten the NZD Receivable outcome by $1,787,000.00, and MMH enhances the CAD Receivable by $2,961,270.29. However, GBP, EUR Receivables, and EUR Payables fare better unhedged. For JPY and USD Payables, Forward Hedging has savings of $-2,294.84 and $190,006.58, respectively.

In conclusion, Firm ABC should consider merging both Forward and Options Hedging. The former is apt for specific cash flows, while the latter is more suited for fluctuating ones. This twin-strategy not only offers protection but also flexibility. By actively hedging, Firm ABC can stabilise its future cash flows and alter perceptions about its risk, possibly leading to decreased capital costs. Moreover, shielding against unfavourable currency shifts safeguards firm value, ensuring shareholder wealth remains intact.

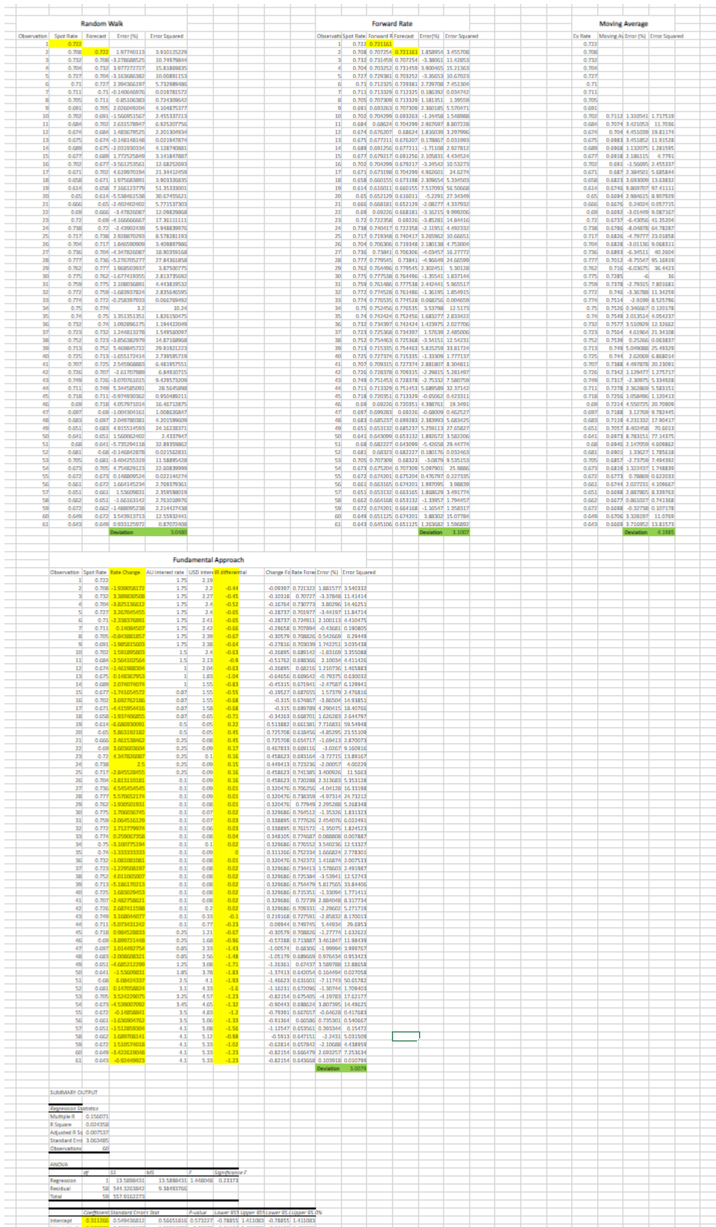
Appendices

Appendix 1- Forecast: NZD

Appendix 2- Forecast: GBP



Appendix 3- Forecast: USD



Random Walk

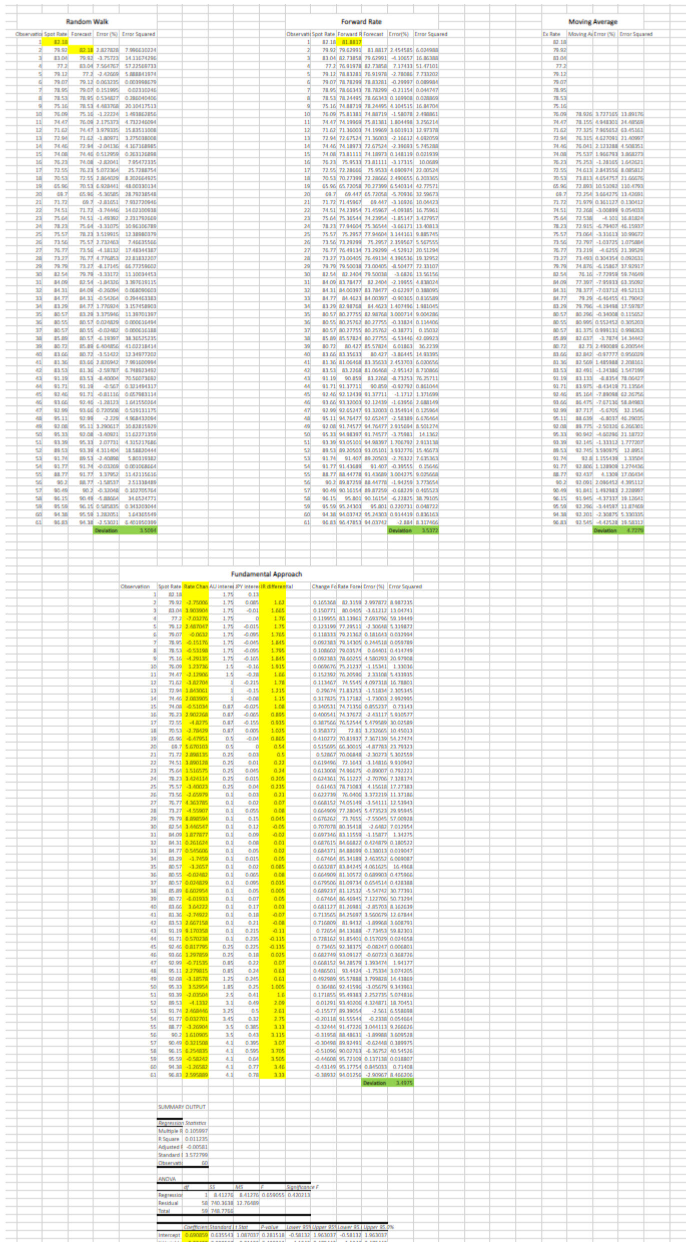
Forward Rate

Moving Average

Fundamental Approach

SUMMARY OUTPUT

Appendix 4- Forecast: JPY



Appendix 5- Forecast: EUR

Random Walk

Observation	Spot Rate	Forecast	Error (%)	Error Squared
1	0.6223			
2	0.6260	0.6223	-0.5799	0.3363
3	0.6464	0.6260	-3.1561	9.9609
4	0.6135	0.6464	5.3647	28.7795
5	0.6352	0.6135	-3.4225	11.7138
6	0.6243	0.6352	1.7525	3.0712
7	0.6337	0.6243	-1.4943	2.2330
8	0.6284	0.6337	0.8450	0.7140
9	0.6198	0.6284	1.3891	1.9297
10	0.6181	0.6198	0.2783	0.0774
11	0.6181	0.6181	-0.0081	0.0001
12	0.6119	0.6181	1.0231	1.0467
13	0.6194	0.6119	-1.2061	1.4547
14	0.6177	0.6194	0.2671	0.0714
15	0.6139	0.6177	0.6134	0.3763
16	0.6248	0.6139	-1.7338	3.0060
17	0.6034	0.6248	3.5493	12.5978
18	0.5918	0.6034	1.9491	3.7989
19	0.5567	0.5918	6.3098	39.8135
20	0.5934	0.5567	-6.1816	38.2127
21	0.5991	0.5934	-0.9498	0.9022
22	0.6143	0.5991	-2.4809	6.1547
23	0.6064	0.6143	1.2963	1.6803
24	0.6180	0.6064	-1.8707	3.4996
25	0.6113	0.6180	1.0977	1.2049
26	0.6018	0.6113	1.5687	2.4607
27	0.6165	0.6018	-2.3686	5.6101
28	0.6324	0.6165	-2.5221	6.3612
29	0.6285	0.6324	0.6148	0.3779
30	0.6412	0.6285	-1.9705	3.8827
31	0.6473	0.6412	-0.9501	0.9026
32	0.6415	0.6473	0.9043	0.8177
33	0.6330	0.6415	1.3538	1.8328
34	0.6322	0.6330	0.1250	0.0156
35	0.6189	0.6322	2.1405	4.5819
36	0.6196	0.6189	-0.1110	0.0123
37	0.6245	0.6196	-0.7878	0.6206
38	0.6506	0.6245	-4.0012	16.0098
39	0.6290	0.6506	3.4294	11.7605
40	0.6389	0.6290	-1.5590	2.4304
41	0.6292	0.6389	1.5449	2.3868
42	0.6472	0.6292	-2.7811	7.7347
43	0.6765	0.6472	-4.3310	18.7575
44	0.6664	0.6765	1.5227	2.3187
45	0.6691	0.6664	-0.4135	0.1710
46	0.6584	0.6691	1.6389	2.6861
47	0.6828	0.6584	-3.5738	12.7719
48	0.6802	0.6828	0.3719	0.1383
49	0.6472	0.6802	5.1028	26.0385
50	0.6482	0.6472	-0.1612	0.0260
51	0.6524	0.6482	-0.6407	0.4105
52	0.6364	0.6524	2.5213	6.3570
53	0.6489	0.6364	-1.9317	3.7315
54	0.6363	0.6489	1.9850	3.9401
55	0.6150	0.6363	3.4592	11.9657
56	0.6003	0.6150	2.4515	6.0098
57	0.6084	0.6003	-1.3298	1.7683
58	0.6104	0.6084	-0.3231	0.1044
59	0.6107	0.6104	-0.0635	0.0040
60	0.5982	0.6107	2.1031	4.4231
61	0.6031	0.5982	-0.8132	0.6613
			Deviation	2.389970

Forward Rate

Observation	Spot Rate	Forward Rate	Forecast	Error(%)	Error Squared
1	0.6223	0.4742			
2	0.6260	0.4770	0.4742	-0.5863	0.3437
3	0.6464	0.4925	0.4770	-3.1561	9.9609
4	0.6135	0.4674	0.4925	5.3647	28.7795
5	0.6352	0.4840	0.4674	-3.4225	11.7138
6	0.6243	0.4757	0.4840	1.7525	3.0712
7	0.6337	0.4829	0.4757	-1.4943	2.2330
8	0.6284	0.4788	0.4829	0.8450	0.7140
9	0.6198	0.4723	0.4788	1.3891	1.9297
10	0.6181	0.4710	0.4723	0.2783	0.0774
11	0.6181	0.4710	0.4710	-0.0081	0.0001
12	0.6119	0.4662	0.4710	1.0231	1.0467
13	0.6194	0.4719	0.4662	-1.2061	1.4547
14	0.6177	0.4707	0.4719	0.2671	0.0714
15	0.6139	0.4678	0.4707	0.6134	0.3763
16	0.6248	0.4761	0.4678	-1.7338	3.0060
17	0.6034	0.4597	0.4761	3.5493	12.5978
18	0.5918	0.4510	0.4597	1.9491	3.7989
19	0.5567	0.4242	0.4510	6.3098	39.8135
20	0.5934	0.4521	0.4242	-6.1816	38.2127
21	0.5991	0.4565	0.4521	-0.9498	0.9022
22	0.6143	0.4681	0.4565	-2.4809	6.1547
23	0.6064	0.4621	0.4681	1.2963	1.6803
24	0.6180	0.4709	0.4621	-1.8707	3.4996
25	0.6113	0.4658	0.4709	1.0977	1.2049
26	0.6018	0.4586	0.4658	1.5687	2.4607
27	0.6165	0.4697	0.4586	-2.3686	5.6101
28	0.6324	0.4819	0.4697	-2.5221	6.3612
29	0.6285	0.4789	0.4819	0.6148	0.3779
30	0.6412	0.4886	0.4789	-1.9705	3.8827
31	0.6473	0.4932	0.4886	-0.9501	0.9026
32	0.6415	0.4888	0.4932	0.9043	0.8177
33	0.6330	0.4823	0.4888	1.3538	1.8328
34	0.6322	0.4817	0.4823	0.1250	0.0156
35	0.6189	0.4716	0.4817	2.1405	4.5819
36	0.6196	0.4721	0.4716	-0.1110	0.0123
37	0.6245	0.4759	0.4721	-0.7878	0.6206
38	0.6506	0.4957	0.4759	-4.0012	16.0098
39	0.6290	0.4793	0.4957	3.4294	11.7605
40	0.6389	0.4869	0.4793	-1.5590	2.4304
41	0.6292	0.4795	0.4869	1.5449	2.3868
42	0.6472	0.4932	0.4795	-2.7811	7.7347
43	0.6765	0.5155	0.4932	-4.3310	18.7575
44	0.6664	0.5078	0.5155	1.5227	2.3187
45	0.6691	0.5099	0.5078	-0.4135	0.1710
46	0.6584	0.5017	0.5099	1.6389	2.6861
47	0.6828	0.5202	0.5017	-3.5738	12.7719
48	0.6802	0.5183	0.5202	0.3719	0.1383
49	0.6472	0.4932	0.5183	5.1028	26.0385
50	0.6482	0.4939	0.4932	-0.1612	0.0260
51	0.6524	0.4971	0.4939	-0.6407	0.4105
52	0.6364	0.4849	0.4971	2.5213	6.3570
53	0.6489	0.4945	0.4849	-1.9317	3.7315
54	0.6363	0.4848	0.4945	1.9850	3.9401
55	0.6150	0.4686	0.4848	3.4592	11.9657
56	0.6003	0.4574	0.4686	2.4515	6.0098
57	0.6084	0.4636	0.4574	-1.3298	1.7683
58	0.6104	0.4651	0.4636	-0.3231	0.1044
59	0.6107	0.4654	0.4651	-0.0635	0.0040
60	0.5982	0.4558	0.4654	2.1031	4.4231
61	0.6031	0.4595	0.4558	-0.8132	0.6613
				Deviation	2.3899905

Moving Average

Ex Rate	Moving Average	Error (%)	Error Squared
0.6223			
0.6260			
0.6464			
0.6135			
0.6352			
0.6243			
0.6337			
0.6284			
0.6198			
0.6181	0.6268	1.402870132	1.968044608
0.6181	0.6263	1.327309204	1.761909005
0.6119	0.6249	2.133751716	4.552896386
0.6194	0.6222	0.465649471	0.21682943
0.6177	0.6227	0.802655011	0.644255066
0.6139	0.6205	1.074610626	1.154787997
0.6248	0.6206	-0.669690732	0.448485677
0.6034	0.6175	2.352378632	5.533685228
0.5918	0.6139	3.728810982	13.90403134
0.5567	0.6076	9.140042034	83.54036839
0.5934	0.6051	1.976783569	3.907712814
0.5991	0.6032	0.689687192	0.475682217
0.6143	0.6034	-1.768891421	3.12897686
0.6064	0.6021	-0.708463671	0.501920773
0.6180	0.6022	-2.561067961	6.559069102
0.6113	0.6019	-1.534754372	2.355470982
0.6018	0.5996	-0.370940219	0.137596646
0.6165	0.6009	-2.518225322	6.341458774
0.6324	0.6050	-4.335104364	18.79312985
0.6285	0.6122	-2.603924039	6.780420403
0.6412	0.6169	-3.777562893	14.26998141
0.6473	0.6218	-3.946208985	15.57256535
0.6415	0.6245	-2.653343081	7.040229506
0.6330	0.6271	-0.916596888	0.840149854
0.6322	0.6286	-0.568780056	0.323510752
0.6189	0.6293	1.682727108	2.831570521
0.6196	0.6311	1.856310523	3.445888757
0.6245	0.6319	1.183100621	1.39972708
0.6506	0.6337	-2.586472984	6.689842499
0.6290	0.6338	0.76124837	0.579499081
0.6389	0.6335	-0.844491119	0.71316525
0.6292	0.6317	0.399733003	0.159786473
0.6472	0.6323	-2.30442508	5.310374947
0.6765	0.6367	-5.891577485	34.71068526
0.6664	0.6401	-3.945147838	15.56419146
0.6691	0.6451	-3.591714738	12.90041476
0.6584	0.6490	-1.423042455	2.025049828
0.6828	0.6548	-4.093094105	16.75341935
0.6802	0.6578	-3.300190995	10.89130021
0.6472	0.6596	1.915635937	3.669661042
0.6482	0.6605	1.894792052	3.590236922
0.6524	0.6628	1.597559854	2.552197487
0.6364	0.6618	3.988733058	15.90999141
0.6489	0.6590	1.554499083	2.416467399
0.6363	0.6560	3.097378513	9.59375365
0.6150	0.6506	5.783455771	33.44836066
0.6003	0.6448	7.409518733	54.90096785
0.6084	0.6373	4.758802064	22.64619709
0.6104	0.6303	3.275618004	10.72967331
0.6107	0.6267	2.613108688	6.828337014
0.5982	0.6217	3.933947439	15.47594245
0.6031	0.6168	2.270356048	5.154516587
		Deviation	9.647007438

Fundamental Approach

Observation	Spot Rate	Rate Change	AU interest rate	EU interest	IR differential	Change Forecast	Rate Forecast	Error (%)	Error Squared
1	0.6223		1.75	0					
2	0.6260	0.58974771	1.75	0	1.75	-0.200633849	0.621051456	-0.785747631	0.617399339
3	0.6464	3.258942122	1.75	0	1.75	-0.200633849	0.624714092	-3.350388741	11.22510472
4	0.6135	-5.091511054	1.75	0	1.75	-0.200633849	0.645073163	5.153255793	26.55604527
5	0.6352	3.543833339	1.75	0	1.75	-0.200633849	0.612229192	-3.616311148	13.07770632
6	0.6243	-1.722292191	1.75	0	1.75	-0.200633849	0.633925574	1.548325023	2.397310377
7	0.6337	1.516996123	1.75	0	1.75	-0.200633849	0.623007523	-1.69196296	2.862738659
8	0.6284	-0.837896265	1.75	0	1.75	-0.200633849	0.632458523	0.642647132	0.412995336
9	0.6198	-1.370102797	1.75	0	1.75	-0.200633849	0.627159177	1.185714455	1.405918769
10	0.6181	-0.277504397	1.5	0	1.75	-0.200633849	0.618566451	0.07708446	0.005942014
11	0.6181	0.008089437	1.5	0	1.5	-0.166752836	0.617059317	-0.17482813	0.030564875
12	0.6119	-1.012715566	1	0	1.5	-0.166752836	0.617309234	0.854617576	0.730371201
13	0.6194	1.220827613	1	0	1	-0.098990808	0.611274295	-1.303900049	1.700155339
14	0.6177	-0.266408331	1	0	1	-0.098990808	0.6187369	0.167864729	0.028178567
15	0.6139	-0.609681075	0.87	0	1	-0.098990808	0.617088534	0.513822948	0.264014022
16	0.6248	1.764359035	0.87	0	0.87	-0.081372681	0.613434425	-1.81373099	3.289620103
17	0.6034	-3.427683325	0.87	0	0.87	-0.081372681	0.624257611	3.465082706	12.00679816
18	0.5918	-1.911822471	0.87	0	0.87	-0.081372681	0.602860037	1.866126823	3.482429318
19	0.5567	-5.935290698	0.5	0	0.87	-0.081372681	0.591334423	6.223288267	38.72931686
20	0.5934	6.588945374	0.5	0	0.5	-0.031228781	0.556516153	-6.21093879	38.57576065
21	0.5991	0.958929504	0.25	0	0.5	-0.031228781	0.593184698	-0.98075355	0.961877525
22	0.6143	2.543985577	0.25	0	0.25	0.002652233	0.599075888	-2.478286103	6.141902009
23	0.6064	-1.279667915	0.25	0	0.25	0.002652233	0.614316293	1.298842296	1.687251088
24	0.6180	1.906374755	0.25	0	0.25	0.002652233	0.606455084	-1.868109357	3.489832568
25	0.6113	-1.085760518	0.25	0	0.25	0.002652233	0.618036391	1.100360026	1.210792186
26	0.6018	-1.54443881	0.1	0	0.25	0.002652233	0.611306213	1.571359733	2.469171409
27	0.6165	2.426023803	0.1	0	0.1	0.022980842	0.60198731	-2.346125401	5.504304398
28	0.6324	2.587395571	0.1	0	0.1	0.022980842	0.616591665	-2.499736654	6.248683341
29	0.6285	-0.611005693	0.1	0	0.1	0.022980842	0.632545331	0.637884042	0.406896051
30	0.6412	2.01006784	0.1	0	0.1	0.022980842	0.628680443	-1.947932239	3.794440009
31	0.6473	0.959183992	0.1	0	0.1	0.022980842	0.641317346	-0.927308555	0.859901156
32	0.6415	-0.89615646	0.1	0	0.1	0.022980842	0.64746876	0.927448693	0.860161079
33	0.6330	-1.335735964	0.1	0	0.1	0.022980842	0.641666426	1.377111378	1.896435746
34	0.6322	-0.124812386	0.1	0	0.1	0.022980842	0.633095457	0.147977923	0.021897466
35	0.6189	-2.095671982	0.1	0	0.1	0.022980842	0.632305276	2.164003233	4.682909991
36	0.6196	0.111162815	0.1	0	0.1	0.022980842	0.619054231	-0.088084057	0.007758801
37	0.6245	0.794060684	0.1	0	0.1	0.022980842	0.619742389	-0.765005237	0.585233013
38	0.6506	4.168001025	0.1	0	0.1	0.022980842	0.62466352	-3.979168403	15.83378118
39	0.6290	-3.315655983	0.1	0	0.1	0.022980842	0.650089502	3.453130762	11.92411206
40	0.6389	1.583675157	0.1	0	0.1	0.022980842	0.629124545	-1.536363311	2.360412223
41	0.6292	-1.521423731	0.1	0	0.1	0.022980842	0.639087834	1.568264521	2.459453608
42	0.6472	2.860684057	0.1	0	0.1	0.022980842	0.6293646	-2.758783713	7.610887577
43	0.6765	4.52705417	0.1	0	0.1	0.022980842	0.647368737	-4.309002453	18.56750214
44	0.6664	-1.499881748	0.1	0	0.1	0.022980842	0.67667547	1.546051534	2.390275346
45	0.6691	0.41523291	0.25	0	0.1	0.022980842	0.666526138	-0.390630044	0.152591831
46	0.6584	-1.61251756	0.25	0.5	0.25	0.002652233	0.669157747	1.641641551	2.694986983
47	0.6828	3.706235285	0.85	1.25	-0.25	0.070414261	0.658813572	-3.505884689	12.29122745
48	0.6802	-0.370560234	0.85	1.25	-0.4	0.090742869	0.683309547	0.463018867	0.214386471
49	0.6472	-4.855046897	1.25	2	-0.4	0.090742869	0.680837251	5.198163018	27.02089876
50	0.6482	0.161466019	1.85	2.5	-0.75	0.138176288	0.64808927	-0.023252186	0.000540664
51	0.6524	0.648822905	2.5	2.5	-0.65	0.124623883	0.649047862	-0.516886151	0.267150618
52	0.6364	-2.459305355	3.1	3	0	0.036533247	0.65205835	2.558786484	6.547285918
53	0.6489	1.96975054	3.25	3	0.1	0.022980842	0.636521244	-1.909163932	3.644906919
54	0.6363	-1.946340787	3.45	3.5	0.25	0.002652233	0.648927211	1.987680048	3.950871972
55	0.6150	-3.343496574	3.5	3.75	-0.05	0.04330945	0.636555569	3.503960834	12.27774153
56	0.6003	-2.392822184	3.5	3.75	-0.25	0.070414261	0.615439052	2.523622237	6.368669197
57	0.6084	1.347681954	4.1	4.07	-0.25	0.070414261	0.60071269	-1.260283085	1.588313455
58	0.6104	0.324139518	4.1	4.07	0.03	0.032467525	0.608577526	-0.290729623	0.084523714
59	0.6107	0.063569874	4.1	4.25	0.03	0.032467525	0.610550166	-0.03108259	0.000966127
60	0.5982	-2.059796313	4.1	4.25	-0.15	0.056861855	0.611087278	2.161173949	4.670672839
61	0.6031	0.819847532	4.1	4.25	-0.15	0.056861855	0.598500125	-0.756781225	0.572717822
								Deviation	2.386499159

SUMMARY OUTPUT

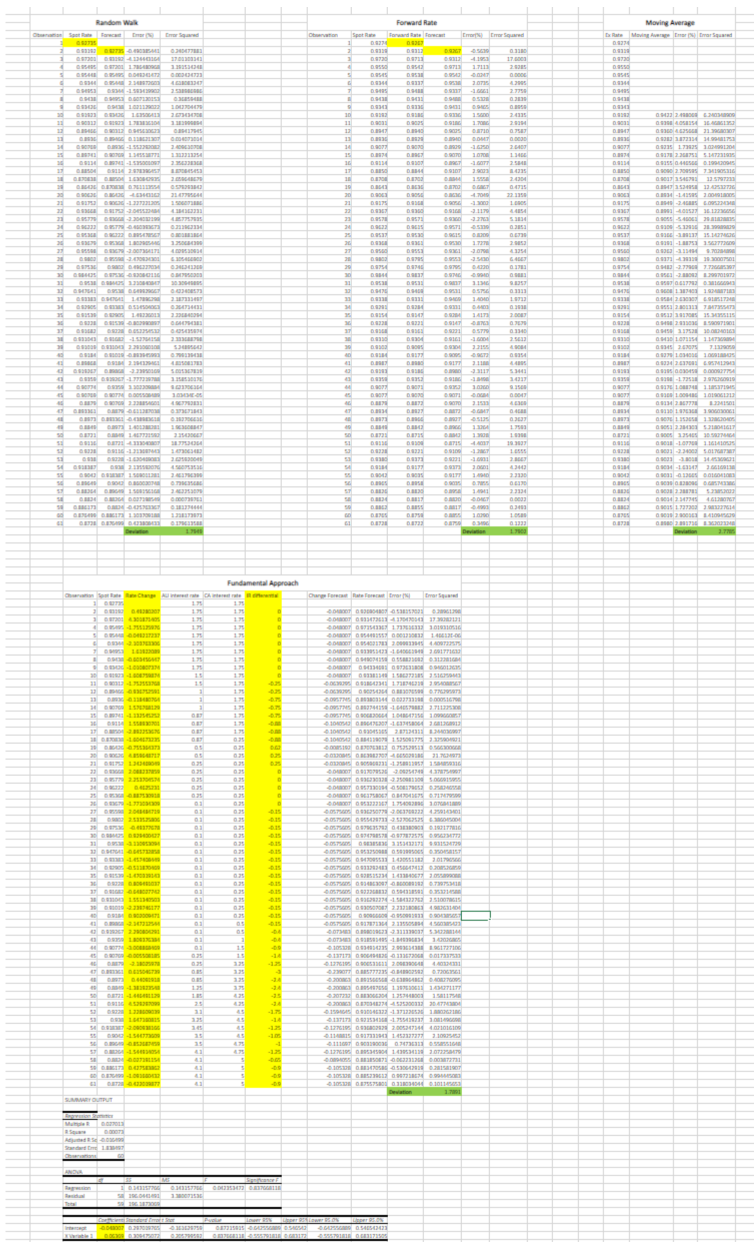
Regression	Statistics
Multiple R	0.039394
R Square	0.001552
Adjusted R	-0.01566
Standard E	2.424529
Observatio	60

ANOVA

	df	SS	MS	F	Significance F
Regression	1	0.529923052	0.529923052	0.090148	0.765062084
Residual	58	340.9436809	5.878339326		
Total	59	341.4736039			

	Coefficient	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.036533	0.372073588	0.098188229	0.922121	-0.708252959	0.781319	-0.708252959	0.781319453
X Variable	-0.13552	0.451374798	-0.300247279	0.765062	-1.03904888	0.768001	-1.03904888	0.76800077

Appendix 6- Forecast: CAD



Appendix 7- Hedge: EUR payable

				3000000	EUR	payable	in	3 months								
1, no hedge		forecasted exchange rate formed in section 3 used to ocnvert this amount								3000000	EUR	into AUD		$5,012,530.28	AUD	in 3M
2, Forward		3M forward rate		(spot rate under MONITOR board + basis points under Quote) -> Bid/ask rate: AUD/EUR: sell EUR, buy AUD at the rate the dealer is willing to sell (offer or ask)												
		0.598551505												$5,012,100.00	AUD	in 3M
3, Money Market hedging			Now we borrow $P EUR and exchange it for AUD (use spot rate/ex rate) at the offer or ask rate (borrowed from MON board)													
			P =	$2,992,611.99		x0=	$2,821,089.73									
														$2,828,495.09	AUD	in 3M
4, Options Hedging																
we need a right to sell EUR 3mill in 3M, so a PUT is needed																
Access FX Options Calculator to tailor your inputs, and choose the shaded (ask premium) at TIME 0																
in 3M	it depends	if excersized, then (strike * 3 mill EUR + (- AUD premium) *(1+AUD rate/4))												$5,139,503.56	AUD	in 3M
		if not excersized, then our forecasted ex rate * 3mill EUR + (- AUD premium) *(1+the above deposit AUD rate/4))												$5,116,787.11	AUD	in 3M

Appendix 8- Hedge: JPY payable

														Outcome		
				300000000	JPY	payable	in	2 months								
1, no hedge		forecasted exchange rate formed in section 3 used to ocnvert this amount								300000000	JPY	into AUD		$3,191,062.98	AUD	in 3M
2, Forward		3M forward rate		(spot rate under MONITOR board + basis points under Quote) -> Bid/ask rate: AUD/JPY: sell JPY, buy AUD at the rate the dealer is willing to sell (offer or ask)												
		93.945												$3,193,357.82	AUD	in 3M
3, Money Market hedging			Now we borrow P JPY and exchange it for AUD (use spot rate/ex rate) at the offer or ask rate (borrowed from MON board)													
			P =	300220161.5	JPY	x0=	$3,170,893.13									
														$3,193,089.38	AUD	in 3M
4, Options Hedging																
we need a right to sell JPY 300mill in 3M, so a PUT is needed																
Access FX Options Calculator to tailor your inputs, and choose the shaded (ask premium) at TIME 0																
in 3M	it depends	if excersized, then (strike * 300 mill JPY + (- AUD premium) *(1+AUD rate/4))												$3,261,719.11	AUD	in 3M
		if not excersized, then our forecasted ex rate * 300 mill JPY + (- AUD premium) *(1+the above deposit AUD rate/4))												$3,253,123.38	AUD	in 3M

Appendix 9- Hedge: USD payable

				$8,000,000.00	USD	payable	in	4 months								
1, no hedge		forecasted exchange rate formed in section 3 used to ocnvert this amount								$8,000,000.00	USD	into AUD		$12,428,767.63	AUD	in 3M
2, Forward		3M forward rate		(spot rate under MONITOR board + basis points under Quote) -> Bid/ask rate: AUD/USD: sell USD, buy AUD at the rate the dealer is willing to sell (offer or ask)												
		0.633976												$12,618,774.21	AUD	in 3M
3, Money Market hedging			Now we borrow $P USD and exchange it for AUD (use spot rate/ex rate) at the offer or ask rate (borrowed from MON board)													
			P =	$7,853,660.14		x0=	$12,430,611.17									
														$12,608,782.85	AUD	in 3M
4, Options Hedging																
we need a right to sell USD 8mill in 3M, so a PUT is needed																
Access FX Options Calculator to tailor your inputs, and choose the shaded (ask premium) at TIME 0																
in 3M	it depends	if excersized, then (strike * 8 mill USD + (- AUD premium) *(1+AUD rate/4))												$12,927,944.42	AUD	in 3M
		if not excersized, then our forecasted ex rate * 8mill USD + (- AUD premium) *(1+the above deposit AUD rate/4))												$12,771,443.87	AUD	in 3M

Appendix 10- Hedge: CAD receivables

												Outcome		
				$6,000,000.00	CAD	recievable in		4 months						
1, no hedge		forecasted exchange rate formed in section 3 used to ocnvert this amount							$6,000,000.00	CAD	into AUD	$5,253,454.81	AUD	in 4M
2, Forward		4M forward rate		(spot rate under MONITOR board + basis points under Quote) -> Bid/ask rate: AUD/CAD: sell CAD, buy AUD at the rate the dealer is willing to sell (offer or ask)										
		2.2367										$13,420,200.00	AUD	in 4M
3, Money Market hedging			Now we borrow $P CAD and exchange it for AUD (use spot rate/ex rate) at the offer or ask rate (borrowed from MON board)											
			P =	$5,925,194.4204		x0 =	$8,129,366.7448							
												$8,214,725.10	AUD	in 4M
4, Options Hedging														
we need a right to sell CAD 6mill in 4M, so a PUT is needed														
Access FX Options Calculator to tailor your inputs, and choose the shaded (ask premium) at TIME 0														
in 4M	it depends	if excersized, then (strike * 6 mill CAD + (- AUD premium) *(1+AUD rate/4))										$5,181,804.70	AUD	in 3M
		if not excersized, then our forecasted ex rate * 6mill CAD + (- AUD premium) *(1+the above deposit AUD rate/4))										$8,212,404.70	AUD	in 3M

Appendix 11- Hedge: EUR receivable

				4000000	EUR	recievable in		3 months						
1, no hedge		forecasted exchange rate formed in section 3 used to ocnvert this amount							4000000	EUR	into AUD	$2,394,000.50	AUD	in 3M
2, Forward		3M forward rate		(spot rate under MONITOR board + basis points under Quote) -> Bid/ask rate: AUD/EUR: sell EUR, buy AUD at the rate the dealer is willing to sell (offer or ask)										
		2.388281										$9,553,124.00	AUD	in 3M
3, Money Market hedging			Now we borrow $P EUR and exchange it for AUD (use spot rate/ex rate) at the offer or ask rate (borrowed from MON board)											
			P =	$3,990,149.32		x0=	$3,761,932.73							
												$3,771,807.80	AUD	in 3M
4, Options Hedging														
we need a right to sell EUR 4mill in 3M, so a PUT is needed														
Access FX Options Calculator to tailor your inputs, and choose the shaded (ask premium) at TIME 0														
in 3M	it depends	if excersized, then (strike * 4 mill EUR + (- AUD premium) *(1+AUD rate/4))										$2,262,648.23	AUD	in 3M
		if not excersized, then our forecasted ex rate * 4mill EUR + (- AUD premium) *(1+the above deposit AUD rate/4))										$2,280,648.73	AUD	in 3M

Appendix 12- Hedge: GBP receivable

												Outcome		
				7000000	GBP	recievable in		3 months						
1, no hedge		forecasted exchange rate formed in section 3 used to ocnvert this amount							7000000	GBP	into AUD	$3,579,284.56	AUD	in 3M
2, Forward		3M forward rate		(spot rate under MONITOR board + basis points under Quote) -> Bid/ask rate: AUD/GBP: sell GBP, buy AUD at the rate the dealer is willing to sell (offer or ask)										
		3.1342										$21,939,400.00	AUD	in 3M
3, Money Market hedging			Now we borrow $P GBP and exchange it for AUD (use spot rate/ex rate) at the offer or ask rate (borrowed from MON board)											
			P =	$6,976,237.19		x0=	$8,490,080.66							
												$8,512,367.12	AUD	in 3M
4, Options Hedging														
we need a right to sell GBP 7mill in 3M, so a PUT is needed														
Access FX Options Calculator to tailor your inputs, and choose the shaded (ask premium) at TIME 0														
in 3M	it depends	if excersized, then (strike * 7 mill GBP + (- AUD premium) *(1+AUD rate/4))										$3,418,550.22	AUD	in 3M
		if not excersized, then our forecasted ex rate * 7mill GBP + (- AUD premium) *(1+the above deposit AUD rate/4))										$8,291,950.22	AUD	in 3M

Appendix 13- Hedge: NZD receivable

				$5,000,000.00	NZD	recievable in		3 months								
1, no hedge		forecasted exchange rate formed in section 3 used to ocnvert this amount								$5,000,000.00	NZD	into AUD		$5,420,000.00	AUD	in 3M
2, Forward		3M forward rate		(spot rate under MONITOR board + basis points under Quote) -> Bid/ask rate: AUD/NZD: sell NZD, buy AUD at the rate the dealer is willing to sell (offer or ask)												
		1.4414														
														$7,207,000.00	AUD	in 3M
3, Money Market hedging			Now we borrow $P NZD and exchange it for AUD (use spot rate/ex rate) at the offer or ask rate (borrowed from MON board)													
			P =	$4,932,182.491		x0 =	$2,871,023.4279	AUD								
														$2,901,169.17	AUD	in 3M
4, Options Hedging																
we need a right to sell NZD 5mill in 3M, so a PUT is needed																
Access FX Options Calculator to tailor your inputs, and choose the shaded (ask premium) at TIME 0																
in 3M	it depends	if excersized, then (strike * 5 mill NZD + (- AUD premium) *(1+AUD rate/4))												$5,379,986.13	AUD	in 3M
		if not excersized, then our forecasted ex rate * 5mill NZD + (- AUD premium) *(1+the above deposit AUD rate/4))												$5,368,486.13	AUD	in 3M

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