



Obedinence Of Cross Currency Pairs Based on Technical Factors with Reference to Over the Counter Market

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Abstract

The foreign exchange market (Forex, FX, or currency market) is a global decentralized market for the trading of currencies. The foreign exchange market assists international trade and investments by enabling currency conversion. Our study is to test the technical tools to analyse about the technical impact and its return in the market. For this purpose 13 cross currency pairs were taken as sample size and Jensen's Alpha, Beta, Relative Strength Index, and Buy and Hold Abnormal Return were used as technical tool for analysis and the conclusion is that its not preferred to invest in JPY pairs as the volatility and the return are not up to the mark and its preferred to invest in EURCAD as the return was high when compared to other scripts and the market was moving accordingly to its cross currency pair.

Keywords: Foreign Exchange Market, Relative Strength Index and Abnormal Return

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Introduction

Forex, short for the Global Foreign Exchange Market, is the largest single financial market in the world. Job Monkey includes a section on this topic because Forex trading can be done just about anywhere there's an Internet connection. Many traders are able to earn extra money over and above what their 'real job' provides - working from home. Also called the Currency Exchange, the FOREX is the financial field where currencies from different nations are exchanged for that of another (with the equivalent of over 4 trillion dollars changing hands daily, according to FX Street). The Forex is not a physical market like the AMEX (American Stock Exchange) or the NYMEX (New York Mercantile Exchange), but more of a global network of interconnected banks, investments firms, hedge funds, currency traders, and other financial and banking entities. Due to the nonexistence of a physical exchange, the FOREX market operates on a full 24-hour period, spanning from one time zone to another in all the major financial centers. There are three main economic zones that comprise the Forex market: Australasia

(Australia and Asia), Europe, and North America. This structure enables participants in the Forex market to trade at any time of day.

After a shakeup in the structure of the Forex market in the early 1970s, many financial institutions such banks, hedge funds, and brokerage houses. This era also saw an increase of individual traders enter the Forex market. This led to a structure of power resting in the hands of the economy and not the government and national banks. Today, the factor that drives the Forex market is the economic law of supply and demand.

Statement Of Problem

The study is about analyzing the technical factors of currency pairs in different Greenwich mean time. The currency market is otherwise called as curve market because it runs for the whole day ie., 24*5. The movements will be huge at the time of global opening of different countries. But the investors are not aware about the timing and impact of timing in the market.

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Objectives Of The Study

- To find out the profit and loss occurred with the market based on the market strength.
- To find out the risk and return involved with the currency pair taken for the study.
- To find out the compound annual growth rate of the currency pairs.
- To suggest about the profit and loss involved with the currency pairs.

Scope Of The Study

The study is conducted in a way to calculate the volatility of Forex market for past one year. This will help the investors viz, individuals and the clients of the company to yield them higher return with lesser risk.

Need Of The Study

The study is about analyzing the technical factors of

Forex market in different GMT'S. The need of the study is to know about the price variations in different timings of the market when the is day shift process accordingly.

Research Methodology

Research Design

The type of research design is undertaken in analytical design since the pricing movements of Forex markets are analyzed.

Sample design

For the purpose of this study the daily prices of currency market are included from Global currency trading and their price movements are computed and studied. We will be analyzing the following prices

Pairs taken for the study are as follows

Pairs related with American dollar	USDCHF, USDCAD
Pairs with Japanese Yen	USDJPY, EURJPY, AUDJPY, NZDJPY, GBPJPY, CHFJPY, CADJPY
Pairs With Euro	EURUSD, EURCAD, EURAUD,
Pairs with Great Britain pound	GBPUSD
Pair with Australian Dollar	AUDUSD
Pair with Newzealand Dollar	NZDUSD

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Time duration of the study

The samples for every pairs taken for the study are taken from 31/4/2019 to 31/3/2018.

Sources of data

International currency prices from MT4 platform

Dollar charts from Windsor brokers

Fundamental data from www.forexfactory.com

Tools used for analysis: RSI, BETA, JENSEN'S ALPHA and BHAR

Limitations Of The Study

The sampling time taken for the study is limited to one year.

The number of pairs taken for the study is limited to 15 pairs.

There may be a bias in the secondary data collection.

Analysis And Interpretation

USDJPY

DATE	CLOSING PRICE	RSI	Type of trade	Total profit (in pips)
2020.05.22	99.428	71.29	Short	145.4
2020.05.27	97.974	42.44		
2020.07.05	99.044	28.69	Long	8.3
2020.07.29	99.127	52.02		
2020.07.31	100.60	77.35	Short	96.8
2020.08.20	99.63	44.25		
2020.09.05	96.31	27.76	Long	216.2



2020.09.24	98.47	51.30		
2020.12.12	99.21	70.04	Short	-375.2
2021.02.11	102.96	36.05		
2021.03.04	100.96	26.77	Long	153.9
2021.03.24	102.50	54.45		
2021.05.02	103.91	72.62	Short	211.9
2021.05.07	101.79	43.28		
Total				457.3

The above table shows about the relative strength index of USDJPY were the first short was initiated at 71.29 and the target was achieved at 42.44\$ were the total profit was 145.4 pips. The second long was initiated at 28.69\$ and the target got achieved at 52.02\$ and the total profit out of the trade was 8.3 pips. The third trade was initiated as long at 100.60\$ and the target was at 99.63\$ and the total profit was at 96.8 pips. The fourth long was initiated at 96.31 and the target was at 98.17 and the total profit was at 216.2 pips. The fifth short was at

99.21 and the target was at 102.96 and the total profit was at -375.2 pips. The sixth trade was initiated as long and it was initiated at 26.77\$ and the total profit was 153.9. The last trade was initiated as short at 103.91 and it was covered at 101.79 were the total profit for the trade was at 211.9. The conclusion is that out of all trades initiated with USDCHF there was a total profit of 457.3 pips during the traded period.

USDCHF

DATE	CLOSING PRICE	RSI	Type of trade	Total profit (in pips)
2020.06.11	0.92452	23.26	Long	180.40
2020.06.26	0.94256	50.48		
2020.07.02	0.95048	77.61	Short	116.50
2020.07.16	0.93883	47.65		
2020.07.25	0.92937	26.99	Long	-75.10
2020.08.28	0.92186	50.42		
2020.11.08	0.92127	70.88	Short	140.70
2020.11.22	0.90720	45.04		
2020.12.05	0.89649	29.36	Long	-38.10
2020.12.31	0.89268	56.29		
2021.04.02	0.88642	71.06	Short	0.70
2021.04.09	0.87946	44.00		
Total			325.10	

The above table shows about the relative strength index of USDCHF were the first buy was initiated at 0.9245\$ at 30 level and the target got achieved at 0.9425\$. The total profit occurred out of the trade was 180.40 pips. The second short was initiated at 0.9504\$ and the target got achieved at 0.9388\$ and the total profit out of the trade was 116.5 pips. The third trade was initiated as long at 0.9293\$ and the target was at 0.9218\$ and the total profit was at -

75.1 pips. The fourth short was initiated at 0.9212 and the target was at 0.9072 and the total profit was at 140.7 pips. The fifth buying was at 0.8964 and the target was at 0.8926 and the total profit was at -38.10 pips and the final short was initiated at 0.8846 and was covered at 0.8749 and the total profit was at 0.70 pips. The conclusion is that out of all trades initiated with USDCHF it gave a total profit of 325.10 pips.

USDCAD

DATE	CLOSING PRICE	RSI	Type of trade	Total profit (in pips)
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2020.05.22	1.03653	75.00	Short	-170
2020.06.07	1.01958	45.00		
2020.07.23	1.02841	27.98	Long	136.10
2020.08.07	1.04202	51.82		
2020.08.29	1.05320	73.29	Short	108.0
2020.09.02	1.04240	48.00		
2020.09.11	1.03156	22.61	Long	19.10
2020.10.02	1.03347	52.01		
2020.10.09	1.03920	73.79	Short	-104
2020.10.17	1.02887	52.70		
2021.02.14	1.09823	27.41	Long	138
2021.02.21	1.11200	50.10		
Total			127.20	

The above table shows about the relative strength index of USDCAD were the first short was initiated at 1.0365 and was covered at 1.0195 were there was a loss of 170 pips. The second buy was initiated at 1.0284\$ at 30 level and the target got achieved at 1.0420\$. The total profit occurred out of the trade was 136.10 pips. The third short was initiated at 1.0532\$ and the target got achieved at 1.0371\$ and the total profit out of the trade was 108 pips. The

fourth trade was initiated as long at 1.0315\$ and the target was at 1.0334\$ and the total profit was at 19.10 pips. The fifth trade was a short were there was a loss of 104 pips and the final trade was initiated as long were it gave a profit of 138 pips. The conclusion is that out of all trades initiated USDCAD gave a total profit of out of long and short positions initiated was 127.20 pips.

NZDUSD

DATE	CLOSING PRICE	RSI	Type of trade	Total profit (in pips)
2020.05.22	0.8073	24.07	Long	-223.00
2020.07.11	0.7850	57.22		
2020.07.26	0.80734	73.61	Short	255.00
2020.08.05	0.78184	43.73		
2020.08.29	0.77659	29.04	Long	298.10
2020.09.10	0.8064	55.79		
2020.09.12	0.81341	73.47	Short	-151.60
2020.10.08	0.82857	40.41		
2020.11.11	0.82501	27.40	Long	83.30
2020.11.15	0.83334	54.01		
2021.01.13	0.83745	72.17	Short	154.30
2021.01.24	0.82202	43.10		
2021.01.31	0.80758	22.64	Long	242.80
2021.02.11	0.83186	50.38		
2021.03.11	0.84692	72.97	Short	-73.90
2021.04.03	0.85431	49.97		
2021.04.28	0.85341	29.12	Long	-204.90
2021.05.06	0.8739	62.18		
Total			380.10	

The above table shows about the relative strength index of NZDUSD were the first buy was initiated at 0.8073\$ at 30 level and the target got achieved at

0.7850\$. The total profit occurred out of the trade was -223 pips. The second short was initiated at 0.8073\$ and the target got achieved at 0.7818\$ and



the total profit out of the trade was 225 pips. The third trade was initiated as long at 0.7765\$ and the target was at 0.8064\$ and the total loss was at 298 pips. The fourth short was initiated at 0.8134\$ and the target got achieved at 0.8285\$ and the total profit out of the trade was -151.60 pips. The fifth trade was initiated as long at 0.8250\$ and the target was at 0.8333\$ and the total loss was at 83.30 pips. The sixth short was initiated at 0.8374\$ and the target got achieved at 0.8220\$ and the total profit out of the trade was 154.30 pips. The seventh trade was initiated as long at 0.8075\$ and the

target was at 0.8318\$ and the total loss was at 242.80 pips. The eighth short was initiated at 0.8469\$ and the target got achieved at 0.8543\$ and the total profit out of the trade was -73.90 pips. The ninth an final trade was initiated as long at 0.8534\$ and the target was at 0.8739\$ and the total loss was at -204.90 pips. The conclusion is that out of all trades the NSDUSD occurred with profit with 5 trades and there was a loss with 4 trades overall the cross currency pair gave profit of 380.10 pips and its preferred to invest in this pair based on RSI.

AUDUSD

DATE	CLOSING PRICE	RSI	Type of trade	Total profit (in pips)
2020.05.22	0.96979	17.16	Long	-450.40
2020.07.22	0.92475	50.64		
2020.09.11	0.93253	73.59	Short	-96.50
2020.10.08	0.94218	38.53		
2020.11.07	0.94537	28.84	Long	-489.40
2021.01.06	0.89643	52.26		
2021.02.14	0.90322	73.17	Short	104.30
2021.02.28	0.89279	46.60		
Total			-932.0	

The above table shows about the relative strength index of AUDUSD were the first buy was initiated at 0.9697\$ at 30 level and the target got achieved at 0.9247\$. The total profit occurred out of the trade was -450.40 pips. The second short was initiated at 0.9325\$ and the target got achieved at 0.9421\$ and the total profit out of the trade was -96.50 pips. The third trade was initiated as long at 0.9453\$ and the

target was at 0.8964\$ and the total profit was at -489.40 pips. The fourth short was initiated at 0.90322\$ and the target got achieved at 0.89279\$ and the total profit out of the trade was 104.30 pips. The conclusion is that out of all trades the AUDUSD occurred a loss of -932 pips and its not preferred to invest in this pair based on RSI.

AUDJPY

DATE	CLOSING PRICE	RSI	Type of trade	Total profit (in pips)
2020.05.24	97.123	22.39	Long	652.80
2020.06.27	90.595	50.33		
2020.09.10	91.849	70.60	Short	-112.90
2020.09.30	90.72	41.78		
2021.01.23	90.224	25.78	Long	-206.30
2021.02.12	92.287	53.24		
2021.02.24	91.573	70.90	Short	7.60
2021.03.12	91.649	48.94		
Total			341.20	

The above table shows about the relative strength index of AUDJPY were the first buy was initiated at 97.12 at 30 level and the target got achieved at 90.59\$. The total profit occurred out of the trade

was 652.80 pips. The second short was initiated at 91.84\$ and the target got achieved at 90.72\$ and the total profit out of the trade was -112.90 pips. The third trade was initiated as long at 90.22\$ and



the target was at 92.28\$ and the total profit was at -206.30pips. The fourth short was initiated at 91.53\$ and the target got achieved at 91.64\$ and the total profit out of the trade was 7.60 pips. The conclusion is out of 5 trades 2 trades were initiated as long and two trades were initiated as short and it gave a profit of 341.20 pips and it is preferred to invest in this script based on AUDJPY.

BETA AND JENSEN'S ALPHA

NZDJPY

Risk-free Rate (rf)	7.87
Beta	0.06
E(Rp)	7.87
Alpha ratio	7.91

The above table shows the Jensen's Alpha of NZDJPY for one the beta value was at 0.06. This shows that the value is not moving accordingly to the market and when the market moves one dollar higher the script moves 0.06 cents were no volatility was found in the script. According to the alpha ratio the return out of the investment is at 7.91% per annum which is not lesser than risk free rate of return so it is preferred to invest in this script.

GBPUSD

Risk-free Rate (rf)	7.87
Beta	-0.56
E(Rp)	7.87
Alpha ratio	7.90

The above table shows the Jensen's Alpha of GBPUSD for one the beta value was at -0.56. This shows that the value is moving negatively accordingly to the market and when the market moves one dollar higher the script moves -0.56 cents were high volatility was found in the script. According to the alpha ratio the return out of the investment is at 7.90% per annum which is not lesser than risk free rate of return so it is preferred to invest in this script. But its not preferred to invest according to Beta.

GBPJPY

Risk-free Rate (rf)	7.87
Beta	-0.01

E(Rp)	7.87
Alpha ratio	7.92

The above table shows the Jensen's Alpha of GBPJPY for one the beta value was at -0.01. This shows that the value is moving negatively accordingly to the market and when the market moves one dollar higher the script moves -0.01 cents were no volatility was found in the script. According to the alpha ratio the return out of the investment is at 7.92% per annum which is not lesser than risk free rate of return so it is preferred to invest in this script. But its not preferred to invest according to Beta.

EURUSD

Risk-free Rate (rf)	7.87
Beta	-0.64
E(Rp)	7.87
Alpha ratio	7.89

The above table shows the Jensen's Alpha of EURUSD for one the beta value was at -0.64. This shows that the value is moving negatively accordingly to the market and when the market moves one dollar higher the script moves -0.64 cents were high volatility was found in the script. According to the alpha ratio the return out of the investment is at 7.89% per annum which is not lesser than risk free rate of return so it is preferred to invest in this script. But its not preferred to invest according to Beta.

EURAUD

Risk-free Rate (rf)	7.87
Beta	0.17
E(Rp)	7.87
Alpha ratio	7.93

The above table shows the Jensen's Alpha of EURAUD for one the beta value was at 0.17. This shows that the value is moving positively accordingly to the market and when the market moves one dollar higher the script moves 0.17 cents were moderate volatility was found in the script. According to the alpha ratio the return out of the investment is at 7.93% per annum which is not lesser than risk free rate of return so it is preferred to invest in this script. It's also preferred to invest according to Beta.



CHFJPY

Risk-free Rate (rf)	7.87
Beta	-0.01
E(Rp)	7.87
Alpha ratio	7.91

Interpretation

The above table shows the Jensen's Alpha of EURJPY for one the beta value was at -0.01. This shows that the value is moving negatively accordingly to the market and when the market moves one dollar higher the script moves -0.01cents were no volatility was found in the script. According to the alpha ratio the return out of the investment is at 7.91% per annum which is not lesser than risk free rate of return so it is preferred to invest in this script. But its not preferred to invest according to Beta.

Findings

In NZDJPY for one year from the date of issue of the script. The average return was at 0.00 are the return is in positive and the script was more volatile after its being issued. But we cannot invest in this script because the value is not positive.

In GUSD for one year from the date of issue of the script. The average return was at 0.009 are the return is in positive and the script was more volatile after its being issued. But we can invest in this script because the value is positive.

GBPJPY one year from the date of issue of the script. The average return was at 0.048 are the return is in positive and the script was more volatile after its being issued. But we can invest in this script because the value is positive.

In EURUSD for one year from the date of issue of the script. The average return was at EURUSD are the return is in positive and the script was more volatile after its being issued. But we can invest in this script because the value is positive.

In EURJPY for one year from the date of issue of the script. The average return was at 0.02 are the return is in positive. But we can invest in this script because the value is positive.

In EURCAD for one year from the date of issue of the script. The average return was at 0.00 are the return is in normal and the script was not moving accordingly. Its not preferred to invest in this script because the value is positive.

In EURAUD for one year from the date of issue of the script. The average return was at 0.00 are the return is in normal and the script was not moving accordingly. Its not preferred to invest in this script because the value is positive.

In CHFJPY the date of issue of the script. The average return was at 0.01 and the return is in normal and the script was not moving accordingly. It's not preferred to invest in this script because the value is positive.

According to the RSI in USDJPY the first buy was initiated at 97.12\$ at 30 level and the target got achieved at 90.59\$. The total profit occurred out of the trade was 693 pips. The second short was initiated at 91.89\$ and the target got achieved at 90.72\$ and the total profit out of the trade was 117 pips. The third trade was initiated as long at 91.04\$ and the target was at 92.28\$ and the total profit was at 124 pips. The conclusion is that out of all trades the USDJPY occurred a loss due to a huge loss in a single trade and its not preferred to invest in this pair based on RSI.

In CADJPY for one year from the date of issue of the script. The average return was at -0.03 are the return is in negative and the script was not moving accordingly. Solts not preferred to invest in this script because the value is positive.

In AUDUSD for one year from the date of issue of the script. The average return was at 0.00 are the return is in normal and the script was not moving accordingly. Its not preferred to invest in this script because the value is positive.

Suggestions

Based on BHAR it shows that its not preferred to invest in JPY counters as the volatility of the pairs were low and the in some cross pairs they were moving negatively accordingly to the market. So its preferred to invest in positive buy and hold abnormal return and we can avoid trading in other Paris which gives loss.

Based on RSI its not preferred to invest in USDCAD as the loss was too high ad its preferred to invest in USDCHF were it gave a reasonable profit for the investment.

Based on Beta value the jpy currency pairs were trading negatively according to USDJPY as the cross currency changes accordingly and its not preferred to invest based on USDJPY and other pairs gave a reasonable movement with mixed volatility and it preferred to invest in EURCAD as the pair is moving based on its cross pair comparison.

Based on Alpha ratio its not preferred to invest in



JPY counters as it was giving return less than the risk free rate of return and its preferred to invest in other scripts as the give higher yield than the risk free rate of return.

Conclusion

The foreign exchange market (Forex, FX, or currency market) is a global decentralized market for the trading of currencies. The foreign exchange market assists international trade and investments by enabling currency conversion. Our study is to test the technical tools to analyse about the technical impact and its return in the market.

For this purpose 13 cross currency pairs were taken as sample size and Jensen's Alpha, Beta, Relative Strength Index, and Buy and Hold Abnormal Return were used as technical tool for analysis and the conclusion is that its not preferred to invest in JPY pairs as the volatility and the return are not up to the mark and its preferred to invest in EURCAD as the return was high when compared to other scripts and the market was moving accordingly to its cross currency pair.

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