



## COMMODITY PORTFOLIO MANAGEMENT AND RISK ANALYSIS IN STOCK TRADING COMPANY

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### Abstract

A commodity futures market is a public market where commodities are purchased or sold at an agreed price for delivery on a specified date, which must be made through an organized exchange broker and in accordance to the terms and conditions of a standardized futures contract. Commodity, besides being a unique hedging instrument, also provides for efficient portfolio arising from diversification of investment, which results in improved returns to domestic as well as international investors. Portfolio management presents the best commodity pair for individuals as per their budget, income, age, ability to take risks. Portfolio managers understand their client has needs and suggest them best commodity pair to invest in and maximize their profit with minimum risk. The present study focuses on selecting best portfolio for dealing in commodities in order to have minimum risk and maximum profit by analyzing the fundamental factors like news relating to economic, political and natural factors and technical factors like moving average, relative strength index, stochastic oscillator, Bollinger bands, parabolic SAR etc. The aim of the study is to analyze the best portfolio for the client and risk associated with it. In addition, the main objectives of the study are to analyze, understand and select the best commodity pair portfolio, which will benefit the individual and return of commodity pair portfolio so chosen.

**Keywords:** Commodity Portfolio, Risk Analysis, Stock Trading, and Finance.

### 1. Introduction

Financial trading companies deal with stock, share, currency and commodity broking. Financial trading companies it operates in a unique retailed focused stock trading model, which aims to provide customers with revolutionary platforms for trading and expertise to a diverse client base. They also provide training and teach how to invest money and make profits out of it. They offer a full range of financial training course all based on price action trading so whether one is interested in trading futures markets, commodities or day trading in the currency markets, they can teach how to trade consistently and profitably.

Finance is a prerequisite for any modern business and financial institutions, which plays an important role in economic systems. It is through the financial markets that the financial system of an economy works. Financial markets began to emerge in 12th century in France as people wanted to manage and regulate the debts of agriculture on behalf of the banks. The first “brokers” were men who traded with debts for the banks who gathered in a building called “Van der Beurze” which is now Antwerp, Belgium, which became their primary place for trading and for starting financial institution.

#### 1.1 Commodity Trading

Although commodity trading is very much like stock market, and other markets it has some differences from them, some of the differences are going to be explained briefly. Banks and other financial institutions are known as the “market makers” because they are the ones that pour billions of dollars in the market and move it up or down. The benefit of the commodity market is that is not tied to one country’s economy, but it is a global market and that is why it is very difficult for these “market makers” to manipulate the price in their favor. This is trading for relatively short periods, holding positions for several minutes to a couple of hours, in rare occasions keeping positions open for more than a day.



## 1.2 Types of Markets and Commodity Portfolio Management

From the emergence of the stock market in the 12th century, there have been other markets that have also surged and prospered which are the bond market, money market, commodity market and forex market. Portfolio management is the art of selecting best portfolio i.e. investment plan for the client by the broker in order to maximize his profits and minimize his risk and as a result retaining the client by suggesting the best plan to the client. Commodity portfolio is a collection of such commodities that gives weight age and helps in balancing by giving the opportunity for risk management and safer returns in the end for the traders.

### 1.3 Risk Analysis and Financial Investments

By selecting a best commodity portfolio for the investor any investor want the risk to be minimal and have maximum return on his investment so made and for which he appoints a professional trader to sketch best portfolio for him. For a trader to be successful in this context proper analysis can be carried out and strategies should be made to overcome them. The probable strategies are risk identification, risk quantification, risk analysis, risk management, and risk monitoring as future is, uncertain and any unavoidable situation can arise so an individual should always be ready to face such situations and must plan and keep some amount aside for such situations and must wisely to avoid any financial crisis. Options available for investors to diversify their investment are Mutual funds, Fixed Deposits, Bond, Stocks, Equities, Real Estate, and Gold/Silver.

## 2. Research Design

A commodity futures market is a public market where commodities are purchased or sold at an agreed price for delivery on a specified date, which must be made through an organized exchange broker and in accordance to the terms and conditions of a standardized futures contract. The present study focuses on selecting best portfolio for dealing in commodities in order to have minimum risk and maximum profit by analyzing the fundamental factors like news relating to economic, political and natural factors and technical factors like stochastic oscillator, Bollinger bands, parabolic SAR etc.

### 2.1 Statement of the Problem

The aim of the study is to analyze the best portfolio for the client and risk associated with it. Due to lack of knowledge about the best commodity pair to invest in, many fall in the trap by selecting wrong pair and end up with heavy losses. The company deals in portfolio of four commodity pairs among which XAGUSD and XAGEUR have high swap charges so not advisable for clients and analysis has been drawn to select best commodity pair between XAUUSD and XAUEUR.

## 3. Analysis of Data

### 3.1 Gap theory

Have you ever thought what causes gaps in price charts and what they mean? Well, you have come to the right place. In the event that something goes wrong, a holes a region on a value outline in which there were no exchanges. Typically, this happens between the end of the market on one day and the following day's open. Heaps of things can cause this; for example, an income report coming out after the financial exchange has shut for the afternoon. On the off chance that the income is higher than anticipated, numerous financial specialists may submit purchase requests for the following day. It can be partitioned into four fundamental classifications: Common, Breakaway, Runaway, and Exhaustion.

### 3.2 Technical Analysis

Technical investigation is utilized to decide value development through diagrams. The hypothesis behind this is a dealer can take a gander at recorded value developments to decide future costs since the market will in general recurrent itself. Essentially if a value level held as a key help or obstruction before, the market (dealers) will recollect this level and base their exchanges as needs be. The most popular method to find trends is by localizing the peaks and troughs in the charts. A peak is the exchange rate's highest value in a specified period and a trough is the lowest value taken by the price on the same period. A several number of troughs and peaks in the chart establishes downtrends and uptrend's. While an uptrend signals to buy, a downtrend means to sell. Reversals of a



trend are also very important while analyzing a chart. Peaks and troughs have been utilized to recognize these inversions too.

### 3.2.1 Technical Indicators

The primary kinds of specialized markers are driving and slacking. Driving pointers have foreseeing characteristics – going before value developments – while slacking markers follow value developments and are utilized as an affirmation device. Two different devices utilized are hybrids and disparity. There are different kinds of pointers that have more employments that are explicit. Normal directional list (ADX) shows the quality of a current pattern. It is utilized more to recognize energy as opposed to course. Positive and negative directional pointers are plotted and estimated on a scale from zero to 100, with readings fewer than 20 demonstrating a feeble pattern and readings over 40 showing a solid pattern.

### 3.2.2 Support/Resistance

When the prices are likely to reverse, there is a bounce on the resistance or the support levels. Simply, the highest point reached in a certain point is the resistance and the lowest point a commodity pair has reached is the support (Figure 1). A support and resistance indicators are those that more often a price tests to a level of support or resistance without actually touching or breaking it shows that the area of resistance or support is very strong.

### Pivot Point

A technical analysis indicator used to determine the overall trend of the market over different periods. The pivot point itself is simply the average of the high, low and closing prices from the previous trading day. On the subsequent day, trading above the pivot point is thought to indicate ongoing bullish sentiment, while trading below the pivot point indicates bearish sentiment.

**Graph 1: Resistance and Support**



### 3.2.3 Bollinger Bands

The Bollinger Bands are used to measure the volatility of the market and indicates support and resistance. To utilize Bollinger Bands, it is essentially three groups that rotate around the straightforward moving normal. The



upper band shows the straightforward moving normal  $+2x$  standard deviation. The center band is same as straight forward moving normal and the lower band shows the basic moving normal  $- 2x$  standard deviation. To set up Bollinger groups, you can utilize the 20 days straightforward moving normal and in addition to and short  $2x$  standard deviation for the upper and lower groups. In the event that the cost experiences either the upper or the lower groups continually, at that point you should change them. These groups show backing and opposition and when the upper and lower groups are thin, it ordinarily implies that it is solidifying. In the event that the groups are wide separated, at that point it as a rule implies that it is in a time of solid value development. In the event that the groups crush together, it normally implies that a breakout is preparing to occur, this is known as a Bollinger press.

**Graph 2: Bollinger Bands**



**Graph 3: Resistance and Support Level in Bollinger Bands**







### 3.2.4 Stochastic Indicator

The stochastic indicator is a tool that is used to compare the current price of a commodity pair to the high and low points at another time in history. This can be utilized to demonstrate where the economic situations could be overbought or oversold. It is comprised of two lines, %K and %D, and there are three sorts of stochastic pointers. The three kinds are full, quick, and moderate yet the quick and the moderate ones are the most well known ones. Quick stochastic is more delicate than the more slow ones. This is a gainful pointer on the grounds that as one can take a gander at the moderate one to discover a passage signal. At the point when %K crosses over the %D and move over 20, go long yet when %K crosses underneath the %D and move 80, go short. On the off chance that it is about the 80 line, at that point it implies that the market is overbought. On the off chance that it is underneath the 20 line, it implies the market is oversold. It could likewise be utilized as a leave sign and it is the contrary hypothesis behind this.

**Graph 4: Stochastic Indicator**



**Graph 5: Stochastic Indicator (Oversold & Overbought)**





### 3.2.5 Parabolic SAR

Parabolic SAR (Stop and Reversal) is an indicator that helps us determine when a trend might be ending. It places dots or points onto your chart that could indicate a potential price movement reversal. It is a very simple indicator to use as when the dots are below the candles, you should buy. At the point when the dots are over the candles, you should sell. On the off chance that there are three dabs going the other way, the previous pattern is likely finished and a contrary pattern is presently occurring.

Graph 6: Parabolic SAR





### 3.2.6 Relative Strength Index (RSI)

The Relative Strength Index is a record, which gauges the proportion of up moves to down moves and standardizes that count so there could be a file made with a range from 0-100. It is fundamentally the same as the stochastic pointer since it distinguishes overbought or oversold conditions. In the event that the RSI is more prominent than or equivalent to 70, at that point it could be seen that the market is overbought. On the off chance that the RSI is littler than or equivalent to 30, at that point it could be a sign that the market is oversold. On the off chance that it dips under 30, it could likewise imply that the move could be finished and that there could be practically no more merchants left in the market. You can likewise utilize the RSI as a pattern confirmer as though a pattern is conceivably framing, simply take a gander at the RSI.

**Graph 7: Relative Strength Index (Overbought)**



From the above picture you can see that how RSI is being used to indicate overbought condition in case of XAUUSD market.

### 3.2.7 Average True Range Indicator

ATR Indicator is used to measure the volatility of commodity pairs. There are three different ATR's of currency pairs and they are recent high minus the recent low, recent high minus the previous close, and recent low minus the previous close. To use the ATR, MT4 should automatically be able to calculate these. To utilize the ATR Indicator, you have to check whether the ATR is demonstrating a major worth or a little worth. If it is a small value, it usually means that the market is consolidating and waiting for a breakout. If you see that the ATR is a big value, it usually means that the market is strong and you are in a breakout.



Graph 8: Average True Range Indicator



### 3.3 Fundamental Analysis

Fundamental analysis is the study that focuses on the economic, social, and political issues that affect the currency of a country, which in return will have impact on the commodity. The more difficult part is analyzing what factors affect supply and demand. These elements decide if the economy of a specific nation is either solid or feeble, accordingly demonstrating this in its money... However, there are some exceptions; countries that rely heavily on exports might intervene in the foreign exchange market to manipulate their currency, because even though they may have a strong economy they might not want their currency too expensive because it will drive their exports down.

#### 3.3.1 Theoretical Analysis

The Theoretical analysis of data here specifies the data which is collected by the news from different website on a daily basis for trading in a profitable way, basically this websites gives full information about the news and the impact which makes a movement in the trading platform it gives news 24/5 similar to in trading software some of the websites are Forex factory, Investing.com, below figure is the Forex Factory.





**Graph 9: Fundamental News Forex Factory**

Date	Time	Currency	Impact	Detail	Actual	Forecast	Previous	Graph
Wed Aug 30	4:15	NZD	Low	Building Consents m/m	-0.7%		-1.3% ↑	
	4:31	GBP	Low	BRC Shop Price Index y/y	-0.3%		-0.4%	
	5:20	JPY	Low	Retail Sales y/y	1.9%	1.0%	2.2% ↑	
	7:00	AUD	Low	Building Approvals m/m	-1.7%	-5.4%	11.7% ↑	
		AUD	Low	Construction Work Done q/q	9.3%	0.9%	0.9% ↑	
		NZD	High	RBNZ Gov Wheeler Speaks				
	11:30	CHF	Low	UBS Consumption Indicator	1.38		1.30 ↑	
	All Day	EUR	High	German Prelim CPI m/m	0.1%	0.1%	0.4% ↑	
	12:30	CHF	Low	KOF Economic Barometer	104.1	107.0	108.0 ↑	
		EUR	Low	Spanish Flash CPI y/y	1.6%	1.7%	1.5% ↑	
	13:30	CHF	Low	Credit Suisse Economic Expectations	25.0		34.7	
	14:00	GBP	Low	Net Lending to Individuals m/m	4.8B	5.3B	5.5B ↑	
		GBP	Low	M4 Money Supply m/m	0.5%	0.4%	-0.1% ↑	
		GBP	Low	Mortgage Approvals	65K	66K	65K	
	14:48	EUR	Low	Italian 10-y Bond Auction	2.09 1.6		2.16 1.7	
	17:45	USD	High	ADP Non-Farm Employment Change	237K	185K	201K ↑	
	18:00	CAD	Low	Current Account	-16.3B	-17.3B	-12.9B ↑	
		USD	High	Prelim GDP q/q	3.0%	2.7%	2.6% ↑	
		USD	Low	Prelim GDP Price Index q/q	1.0%	1.0%	1.0%	

In the above figure, we see there are three different colors, which specifies different impact on the currency pairs. Yellow file specifies that it is low impact news; Orange file specifies that it is medium impact news and Red file specifies that it is high impact news. If we absorb in the right hand side we see the red circle in the upper part of the figure, which says Actual, forecast, previous. Previous tells us what was the past news and value. Forecast tells us the forecasting value for the upcoming news, which is not the final news. Actual is the news about to be published, which only revealed at the specified time in the website, which we see in the right hand side. When the news is published, we can see the values in three colors that are black, red, and green. Black tells there not impact on the market, Red tells there is a negative impact for the particular currency and Green tells there is positive impact for the particular currency.

### 3.4 Automated Trading

**Figure 1: Auto Trading**



The technology today allows us to trade on the go, through devices such as smart phones and tablets, which are quite beneficial, as having open trades can be very stressful, and which offers us some peace of mind. Just being



able to open or close a trade on the go when you do not have access to a computer, turns out to be important in manual trading.

### **3.5 Selecting the Portfolio: Caused or XAUEUR**

An analysis is carried out to select which is the best portfolio among XAUUSD and XAUEUR and it has been found that XAUUSD is best pair to trade in as it is major pair and its swap rate is less when compared to XAUEUR as this is cross pair and attracts high swap. Thus, it is better to opt the portfolio, which attracts less swap rate, and maximum profit can be enjoyed. Although we can trade in cross pair also but within a day if it is being carried forwarded to next day then it will attract high rate of swap and the trader will end with high loss.

### **4. Findings**

From the research it is been found, that portfolio of commodity, which is paired with, USD is major pair and does not attract high swap charges when compared to cross pairs. It is also been found that when fundamentals have high impact then technical factors will not work. In the absence of Fundamental News, Technical Analysis could suggest entry and exit of investor. The average rate of return on investment is around 16% return per annum. Major of the clients are ready to take high risk with expectation of high returns. Due to high volatility of market, it gives the huge comparative between Equity and Commodity market. XAUUSD is going to be best investment pair for the long-term investor rather than speculators. The XAUEUR is going to be suitable option for intraday traders to make profits. Further it has been observed that if clients opt for the portfolio which deals in Gold against dollars can earn more profit when compared to Gold paired with Euro as dollar index is going down from sometime and it showed a low of two and half year and due to which Gold hiked.

### **5. Recommendations & Conclusion**

After 2 months of experience with the commodity market and studying its tendencies, a successful money management company is now a very real possibility. Through research and practicing with demo accounts, I have learned how the commodity market works on multiple levels. This includes the effect of real world problems on the market as well as technical factors that show how the market is going to react...The speculative investors can make fair returns in XAUEUR intraday only. XAGUSD and XAGEUR starts with negative balance at moment any order punched related to them and if kept for next day that it might cover up the loss then there is again a twist of swap charges, which might compensate the profits. XAUUSD also has swap charges but are very minimal like -0.13, which can be adjusted against profits. Proper analysis of the fundamental news is mandatory before punching any trade.

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