

ABSTRAK

Frekuensi perdagangan yang besar dan tinggi di pasaran matawang mencipta keperluan akan suatu kaedah analysis yang boleh memberikan pandangan terhadap risiko. Kaedah tradisional seperti GARCH terbukti memiliki keterbatasan ketika diterapkan pada data frekuensi tinggi, seperti yang dihasilkan di pasaran matawang asing.

Dalam tesis ini, kaedah wavelet digunakan untuk menganalisa data frekuensi tinggi EURO/USD, GBP/USD dan YEN/USD pasangan matawang. Tempoh data yang digunakan adalah dari satu jam, sebelum 13:00 GMT sehingga satu jam selepas 13:00 GMT setiap Isnin dari Jun 2008 ke Desember 2008.

Kajian yang pernah di buat dan mengenai pasaran matawang asing tidak sebanyak seperti dalam pasaran ekuiti, terutamanya di mana kaedah wavelet digunakan. Dengan demikian, tinjauan literatur dilakukan dalam tesis ini membahas kajian terkini karya dilakukan tanpa teknik yang digunakan.

Hasil dari kajian ini membantu peniaga matawang asing atau pelabur untuk memahami perilaku pasangan mata wang tersebut dan kemudian membantu untuk membuat keputusan pelaburan atau kepelbagaian. Sangat penting bahawa kelakuan harus difahami kerana di pasaran frekuensi tinggi tidak akan ada masa untuk menganalisis peristiwa atau berita yang diperkenalkan kepada pasaran matawang asing.

ABSTRACT

The huge and high frequency trading in foreign exchange market creates the need for an analytical method that can provide a view on the volatility. Traditional methods such as GARCH are proven to have limitations when applied to high frequency data, such as those generated in foreign exchange market.

In this thesis, wavelet method is applied to high frequency data of EURO/USD, GBP/USD and YEN/USD currency pairs and of one minute resolution. The period of this behavioral study is from one hour before 1pm GMT to one hour after 1pm GMT for every Mondays from June 2008 to Dec 2008. The New York financial market opens at 1pm GMT.

Past research work on foreign exchange market are not as wide and abundant as for equity market, especially where wavelet methods are used. Thus the literature review done in this thesis explores the past research works done regardless of the technique used.

The results from this study help foreign exchange traders or any investors to understand the behavior of the currency pair mentioned and subsequently help to make investment or diversification decision. It is particularly important that the behavior is to be understood because in high frequency market, there will be no time to properly analyze any events or news that is introduced to the foreign exchange market.

ACKNOWLEDGMENT

I would like to thank my wife, Caroline Hon, who constantly provided the motivation for me to complete the studies when I am exhausted.

Special thanks for Dr. Gurcharan Singh, who is extremely patient with me and always offer excellent advice during brain storming session.

Special thanks for Ms. Li Li Xia of Sheffield Hallam University who helped me with the MATLAB programming by providing me sample MATLAB scripts for the MODWT analysis.

I am also grateful to be able to reference past research work done in the past that enabled me to better understand the wavelet method in financial data analysis.

Last but not least, to all investors in forex, the truth is forex is a gamble if you're not the big fish and no one knows who the big fish is.