Written Exam for the B.Sc. or M.Sc. in Economics Summer 2010

International Finance

Master's Course

June 22, 2010

(3-hour closed book exam)

Please note that the language used in your exam paper must correspond to the language of the title for which you registered during exam registration. I.e. if you registered for the English title of the course, you must write your exam paper in English. Likewise, if you registered for the Danish title of the course or if you registered for the English title which was followed by "eksamen på dansk" in brackets, you must write your exam paper in Danish.

If you are in doubt about which title you registered for, please see the print of your exam registration from the students' self-service system.

UNIVERSITY OF COPENHAGEN
Department of Economics
Michael Bergman

Written exam for the M. Sc in Economics
International Finance

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Number of questions: This exam consists of 3 questions.

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1. **Which of the following statements are correct? Remember to provide a brief explanation.**
   (a) Both sterilized and non–sterilized interventions on the foreign exchange market are effective when domestic and foreign assets are perfect substitutes.
   (b) If foreign and domestic assets are perfect substitutes, a secret intervention can have no effect on the exchange rate.
   (c) The price on a forward contract must converge to the spot exchange rate as the time to maturity falls.
   (d) Triangular arbitrage implies that there are no profit opportunities available when exchanging currencies.
   (e) The maintenance margin is the same as the so called variation margin.
   (f) The price of a forward contract is not necessarily determined by the cost–of–carry model.

2. **Market microstructure.**
   (a) What are the main distinguishing features of the microstructure approach to exchange rate determination? Compare with the standard macroeconomic approach.
   (b) Explain the Evans and Lyons model of the foreign exchange rate market. Pay special attention to the flows of information and explain how prices are set. Explain how this model can be subjected to empirical testing and summarize the empirical evidence.
   (c) Summarize the main results of the survey of traders on the foreign exchange market conducted by Cheung and Chinn. How do their results relate to the microstructure approach?

3. **Currency options.**
   (a) What are the main differences between a currency option and a futures or forward contract? What are the advantages/disadvantages when investing in currency options.
   (b) The option premium can be decomposed into two parts, the intrinsic value and the time value. Explain what is meant by these two terms.
   (c) What factors determine whether a call option on currency is exercised?
   (d) What are the delta and gamma of an option? What are the fundamental assumptions which underlies the calculation of the delta?
   (e) How can an option trader hedge his position using his knowledge of delta? Under what circumstances do we call a portfolio "delta neutral?" Is a delta–neutral portfolio at any risk of loss?
   (f) Some economists have argued that the Garman–Kohlhagen model is not ideal for assessing the value of currency options. Why could this be the case?