Written Exam for the M.Sc. in Economics summer 2013

**International Finance**

Master's Course

May 31, 2013

(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.

**This exam question consists of 3 pages in total**

University of Copenhagen
Department of Economics
Michael Bergman

# Written exam for the M. Sc in Economics
# International Finance

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1. **Which of the following statements are correct? Remember to provide a brief explanation.**

   (a) There are no market-makers on the FX market since the market is decentralized and is a global market open 24/7.

   (b) It is often argued that a central bank would not use secret interventions in order to minimize the effects of an unwanted intervention because all interventions are wanted.

   (c) A carry trade strategy makes use of the empirical evidence that low-interest currencies tend to depreciate on average.

2. **The portfolio balance model**

   (a) Explain the underlying assumptions of the portfolio balance model.

   (b) Consider the following portfolio balance model.

   $$W \equiv M + B + SB^* \tag{1}$$

   $$M = M\left(i, \hat{S}^e, W\right) \tag{2}$$

   $$B = B\left(i, \hat{S}^e, W\right) \tag{3}$$

   $$SB^* = B^*\left(i, \hat{S}^e, W\right) \tag{4}$$

   $$CA = \dot{B}^* = T\left(S/P\right) + i^* B^* \tag{5}$$

   Show that

   $$\frac{\partial M}{\partial W} + \frac{\partial B}{\partial W} + \frac{\partial B^*}{\partial W} = 1,$$

$$\frac{\partial M}{\partial i} + \frac{\partial B}{\partial i} + \frac{\partial B^*}{\partial i} = 0$$

and

$$\frac{\partial M}{\partial \hat{S}^e} + \frac{\partial B}{\partial \hat{S}^e} + \frac{\partial B^*}{\partial \hat{S}^e} = 0$$

and explain the implication of these expressions and why they hold.

(c) Derive the three asset market schedules and illustrate in a graph. Assume that

$$-\frac{B_i}{B_W} < \frac{B_i^*}{1 - B_W^*}.$$

(d) Use the model to analyze the effects on the exchange rate and interest rate of a non–sterilized foreign exchange operation.

3. **Data releases in the portfolio shift model**

(a) Describe the basic underlying assumptions of the portfolio shifts model.

(b) Illustrate the daily timing in the portfolio shifts model and explain carefully the effects of public data releases on FX orders and spot exchange rates.

(c) Summarize the empirical evidence on the effects of news releases on exchange rates and order flows.