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**MGT 4070 Exam # 1 22nd February 2009**

**Questions 1 and 2 are COMPULSORY Pick any TWO from Questions 3 – 5**

**NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. Are the following statements TRUE or FALSE? If a statement is FALSE, explain

why it is false or write the correct version of it for full credit. They are all False.

a. When a country exports goods, there’s an excess supply of its currency in the FX market, and these exports appear as a debit entry, i.e. a positive entry, in the Balance of Payments. [1 point]

**When a country imports goods, there’s an excess supply of its currency in the FX market, and these imports appear as a debit (negative) entry in the BoP.**

**OR**

**When a country exports goods, there’s an excess demand of its currency in the FX market, and these exports appear as a credit (positive) entry in the BoP.**

b. Ask(€/£) = Bid(€/$) / Bid(£/$) [1 point]

**Anyone of the following would be correct:**

**Ask(€/£) = Ask(€/$) x Ask($/£) Bid(€/£) = Bid(€/$) x Bid($/£) Ask(€/£) = [1 / Bid($/€)] x [1 / Bid(£/$)]**

c. Absolute PPP (a.k.a. Static PPP) implies that if a good costs £100 in the UK and the spot exchange rate is S(£/$) = 0.4762, then the US$ price of that good will be $47.62. [1 point]

**£100 = 100 / 0.4762 = $209.99 $47.62 = 47.62 x 0.4762 = £22.67**

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d. If the US$ appreciates, foreigners will buy more of US goods, which means

supply curve has shifted outwards. [1 point]

**If the US$ appreciates, then foreigners will buy less of US goods because they are more expensive now. This means, the demand curve hasn’t shifted; instead you move up along the demand curve – higher price, lower demand.**

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2. Provide brief answers to these conceptual questions:

a. Name one reason why the PPP doesn’t hold across countries. [1 point]

**Could be any one of these:**

**Transportation costs Certain goods are non tradable Tariffs Quotas Measurement errors Differences in basket of goods**

b. If a country has a trade deficit (as per the trade balance of its Current and Capital Accounts), what should the Central Bank do to balance this deficit under a fixed exchange rate regime? [1 point]

**Could do one of the following:**

**Draw down on reserves – sell gold or sell foreign currency or sell SDRs Simply pay with gold/forex/SDRs Devalue its own currency**

c. Ask($/£) = 1.95 and the Bid-Ask spread on the £ is 5 cents. Then what should be

the Bid($/£), Ask(£/$), and Bid(£/$)? [2 points]

**Bid($/£) = 1.95 – 0.05 = 1.90 Ask(£/$) = 1 / 1.90 = 0.5263 Bid(£/$) = 1 / 1.95 = 0.5128**

d. Suppose the market rate for the $/€ is 1.3061-1.3066, and a € market-maker believes that the currency has been overbought. How should he alter his inventory of € – increase it or decrease it? And how will he achieve this? Explain clearly. [2 points]

**If the € has been overbought, that means the $-price of € has gone too far up, and is expected to fall in the near future. So the market-maker would like to short Euros, or in other words, decrease his inventory.**

**He can do so by lowering his bid as well as ask quotes, e.g., to 1.3060-1.3065. That would imply that no one sells their € to him (they get a better price in the market) but they will buy € from him (he sells it for cheaper).**

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3. You are given the following information:

1-year rate in Europe is r

€

= 4.7% 1-year rate in the US is r

$

= 8.3% Spot exchange rate to the US dollar is S(€/$) = 0.68, and 1-year Forward exchange rate is F(€/$) = 0.65.

Use the IRP to set up a Covered Interest Arbitrage (CIA), and describe the details of how this CIA strategy will work as well as how much profit will you make from it. [5 points]

**Using IRP, (1 + r**

**$**

**) should be = (1 + r**

**€**

**) x (S / F**

**3**

**) = 1.047 x (0.68/0.65) = 1.0953 I.e., r**

**$**

**= 9.53% as per the IRP.**

**So, (1 + r**

**€**

**) x (S / F**

**3**

**) > (1 + r**

**$**

**), which means that for the CIA strategy, you would borrow in the US and invest in Europe.**

**Say, you borrow $1 million, then you would have to pay $1.083 million 1 year later.**

**Exchange these $1 million today in the Spot market into Euros: €0.68 million**

**Now invest these €0.68 million at the European rate of 4.7%. This will yield 0.68 x 1.047 = €0.712 million**

**Simultaneously sell a 1-year Forward on the maturity amount €0.712 million. You thus guarantee yourself 0.712/0.65 = $1.0953 million.**

**Your profit will be: $1.0953 million – $1.083 million = $12,323**

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(¥/$) 4. S

0

(¥/$) = 105, F

1

(¥/$) = 115, F

3

= 125, and F

6

(¥/$) = 135. Given these rates, now answer the following questions: a. Which currency is trading at a discount in the Forward market? [1 point]

**Yen**

b. Which currency would you go long into? [1 point]

**Dollar**

c. Based on your answer to (b) above, suppose that you took a speculative position in the 3-month Forward. If the realized (or actual) Spot rate 3-months later is S

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(¥/$) = 120, what would be your gain or loss when your 3-month Forward matures? (You could report your gain/loss in ¥.) [1 points]

**Loss of ¥5**

d. Explain how exactly do you realize this gain/loss (i.e., what are the transactions involved, or in other words, what are you buying and/or what are you selling at what point in time?) [2 points]

**You are long the 3-month Forward on the $, so at maturity, you will buy a $ for ¥125. But the $ is available in the market for ¥120. So your loss is ¥5.**

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5. A rice exporter from Thailand is to receive the Thai Baht equivalent of 1 million

SDR for the rice she exported. You are given the following information:

1 SDR consists of €0.3519, ¥27.2, $0.5821, and £0.1050.

The exchange rates of Baht are: THB/€ is 43.6679, THB/¥ is 0.2710, THB/$ is 32.1600, and THB/£ is 64.3741.

How many Baht should she receive? [5 points]

**The exporter will receive the equivalent of 1 million SDRs, which amounts to receiving the following foreign currencies:**

**0.3519 million Euros = (0.3519 x 43.6679) million Baht 27.2 million Yens = (27.2 x 0.2710) million Baht 0.5821 million Dollars = (0.5821 x 32.1600) million Baht 0.1050 million Sterling Pounds = (0.1050 x 64.3741) million Baht TOTAL = 48.2176 million Baht**

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