

**PLEASE ENSURE THAT YOU READ EACH QUESTION CAREFULLY  
SO THAT YOU KNOW WHAT I AM ASKING, WHAT IS IMPORTANT  
INFORMATION, AND WHAT IS EXCESS INFORMATION**

**Problem 1**

Given the following banks are offering the following Bid and Ask on the US \$/Mexican Peso.

(\$/MXP)	BID	ASK
Bank A	0.75	0.78
Bank B	0.73	0.75
Bank C	0.77	0.79
Bank D	0.76	0.79
Bank E	0.75	0.77

#1 Decide if any arbitrage opportunities exist. If there is/ are arbitrage opportunity(s), please describe them.

<b>Bank A</b>		<b>0.75</b>		<b>0.78</b>
<b>Bank B</b>		<b>0.73</b>		<b>0.75</b>
<b>Bank C</b>		<b>0.77</b>		<b>0.79</b>
<b>Bank D</b>		<b>0.76</b>		<b>0.79</b>
<b>Bank E</b>		<b>0.75</b>		<b>0.77</b>
		<i>banks will buy</i>		<i>banks will sell</i>
		<i>x pesos for 1\$</i>		<i>x pesos for 1\$</i>

- Buy low and sell high. Bank B (Ask price) has undervalued the MxP and overvalued the US\$. Therefore you want to sell the overpriced currency (US\$) and purchase the undervalued currency (MxP) at Bank B. Bank C (Bid price) has overvalued the MxP and undervalued the US\$. Therefore you will want to sell the MxP to Bank C and buy the US\$ at Bank C.

#2 You are given \$1 million to take advantage of any arbitrage opportunity in the mispricing of the US \$ and the Mexican Peso. Your goal is to make the most money possible. Being extremely specific describe, step-by-step, what arbitrage trade you would engage in to achieve your goal. Show your calculations.

- Go to Bank B where the conversion rate is \$0.75/MXP (or 1.33 MXP/\$) and convert (sell) US\$ into MXP (buy).
- Now you have 1,333,333 MXP
- Go to Bank C and convert MXP to US\$ using exchange rate of \$0.77/MXP
- Now you have \$1,026,667.
- $\$1,026,667 - \$1,000,000 = \$26,667$

#3 How much profit would you make?

\$26,667

#4 Describe in painstaking detail how the market will return to equilibrium.

Market forces will correct this arbitrage opportunity. The increase in DEMAND for MXP at Bank B from you), will cause the ask price to increase. When there is more demand for something and the SUPPLY remains unchanged, the price you must pay for it rises. Thus, Bank B will raise its ask price due to the change in demand. Secondly, as you sell more MXP to Bank C, the SUPPLY of MXP at Bank C will increase. Assuming, the DEMAND for MXP at Bank C remains the same, the price Bank C is willing to pay to accumulate more MXP will decrease. It will soon match other asking prices; it is then that the opportunity for arbitrage no longer exists.

## **Problem 2**

Last quarter Canada gathered the following economic data (in Canadian dollars) related to the listed transaction/items :

Canadian export products CAD 2.3B

Canadian export of services CAD 1.0B

Import of products into Canada CAD 1.8B

Service provided by foreign based companies to Canada CAD 1.1B

Repatriation of CAD from foreign subsidiaries of Canadian companies back into Canada CAD 700M

Foreign investment in Canadian financial assets CAD 1.0B

Canadian investment in foreign assets CAD 1.5B

Foreign investment in Canadian real estate CAD 1.1B

#1 Break down Canada's Balance of Payment account into Current Account and Capital Account. Quantify each account, detailing which items (listed above) belong in each account, whether each transaction/item is considered a credit or debit to the BOP.

**Current Account = Exports – Imports +/- Unilateral Transfers**

**Capital Account = Inflows – Outflows**

**Inflows = Foreign investment in Canadian financial assets + Foreign investment in Canadian real estate**