*Parsons*

**Big Mac Index. Some numerical examples. (Do it the BLUE way.)**

**Example #1**

From Quiz 2. Suppose the price of a Big Mac is $4 in the US and 375 yen in Japan. Currently, the yen is about 115 yen = $1. According to PPP theory, is the yen currently undervalued or overvalued? 購買力平価説によると、現在、円は過小評価されているのでしょうか、それとも過大評価されているのでしょうか。 Show your calculations for full credit. By how much (%) is the yen under or overvalued? 円はどのくらい（％）過小評価または過大評価されていますか？

According to PPP, the XR should be: 375yen /$4= 93.75 yen = 1$

The actual rate is 115 yen = $1.

So, the deviation from PPP is: (115-93.75)/93.75 = 0.22666 or **22.67%. 過小評価（undervalued**）されている.

[Note: If you did, (115-93.75)/115, you would get 0.1848, or 18.% undervalued. This is the way The Economist magazine, and the textbook, do it.]

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**Example #2. Chapter 16.**

From K&O&M (The Economist Big Mac Index, **Argentina**:

In Argentina, a Big Mac costs 11.50 pesos.

In the US, $3.54.

According to the Law of One Price, the XR should be 3.2486 peso equals $1. (11.50/3.54= 3.2486). Or “3.25” in the textbook. (“Implied PPP”)

The actual (market) rate is 3.49 pesos equals $1.

So, (3.49-3.25)/3.25 = 0.0738, or about 7.38 % UNDERVALUED. In the textbook is says “-7”.

[ If you did 3.49-3.25/3.49, you would get -6.8%]

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**Example #3, from K&O&M, Indonesia.**

In Indonesia, a Big Mac costs 19,800 rupiah.

In the US, $3.54

According to the Law of One Price, the XR should be rupiah equals $1. (19,800/3.54= 5,593). Or “5,593” in the textbook. (“Implied PPP”).

The actual (market) rate is 11,380 rupiah equals $1.

So, (11,380-5,593)/5,593 = 1.03, or about **100%** UNDERVALUED???

But if we do if the OTHER WAY.

(11,380- 5593)/11380= 0.508 or **51%**, same as in the textbook.

Example #4, Switzerland

In Switzerland, a Big Mac costs 6.50 (CHF) Swiss francs.

In the US, $3.54

According to the Law of One Price, the XR should be 1.836 Swiss francs equals $1. (6.50/3.54= 1.836). Or “1.84” in the textbook. (“Implied PPP”).

The actual (market) rate is 1.16 francs equals $1.

(1.16-1.84)/1.84= -0.369565 or -0.37. Or 37% OVERVALUED.

But if we do if the OTHER WAY.

(1.16- 1.84)/1.16= 0.586 or **59%**, OVERVALUED, basically, the same as in the textbook (“58%”).