LISBON SCHOOL OF ECONOMICS & MANAGEMENT
UNIVERSIDADE DE LISBOA

Equity Research (EQR)

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Individual Assignment 1

Masters in Finance (Elective Course Unit)

2018/2019, 1st Semester

NAME: ____ NUMBER: ___________

Grading for Multiple-Choice Questions (1 to 8):

Each correct multiple-choice answer is worth +2.0 points. Each incorrect multiple-choice answer penalizes -0.125 points. No answer in a multiple-choice question is worth zero.

The Firm and Market Structures

1) A market structure with some pricing power of firms of a homogeneous or standardized product is best described as:

A. monopolistic competition.
B. oligopoly.
C. perfect competition.

Solution: B is correct

2) Market competitors are more likely to use advertising as a tool of differentiation in an industry structure identified as:

A. monopoly.
B. perfect competition.
C. monopolistic competition.

Solution: C is the correct choice.

Understanding Business Cycles

3) The Inventory-to-Sales Ratio example of an:

A. lagging economic indicator.
B. coincident economic indicator.
C. leading economic indicator.

Solution: A is correct. Firms do not react immediately to changes in sales. Following changes in sales companies must adjust production output to stabilize inventory turnover.

4) Which of the following statements is the best description of the characteristics of economic indicators?

A. Leading indicators are important because they track the entire economy.

B. Lagging indicators in measuring past conditions do not require revisions.

C. A combination of leading and coincident indicators can offer effective forecasts.

Solution: C is correct. While no single indicator is definitive, a mix of them—which can be affected by various economic determinants—can offer the strongest signal of performance.

5) If relative to prior values of their respective indicators, the inventory-to-sales ratio has risen, unit labor cost is stable, and real personal income has decreased, it is most likely that a peak in the business cycle:

A. has occurred.

B. is just about to occur.

C. will occur sometime in the future.

Solution: A is correct. Both inventory-to-sales ratio and unit labor costs are lagging indicators that decline somewhat after a peak. Real personal income is a coincident indicator that by its decline shows a slowdown in business activity.

Currency Exchange Rates

6) A BRL/MXN spot rate is listed by a dealer at 0.1378. The six-month forward rate is 0.14193. The six-month forward pips are closest to:

A. -41.3.

B. +41.3.

C. +299.7.

Solution: B is correct. The number of forward points equals the forward rate minus the spot rate, or 0.14193 – 0.1378 = 0.00413, multiplied by 10,000: 10,000 × 0.00413 = 41.3 points. By convention, forward points are scaled so that 41 forward point corresponds to a change of 41 in the last decimal place of the spot exchange rate.

7) An exchange rate between two currencies, USD and BRL, has increased to 3.7250. If the base currency has appreciated in one year by 1200 bps against the price currency, the initial exchange rate between the two currencies was closest to:

A. 3.6050.

B. 3.2780.

C. 3.3259.

Solution: C is correct. The percentage appreciation of the base currency can be calculated by dividing the appreciated exchange rate by the initial exchange rate. In this case, the unknown is the initial exchange rate. The initial exchange is the value of x that satisfies the formula (100 bps = 1%):

$$4.0376/x = 1.12$$

Solving for x leads to 3.7250/1.12 = 3.3259.

8) Berklish Leicester, a UK-based company, sold to 1,000 units of its leading product for a company located in Portugal for €428/unit, and the GBP/EUR was at GBP 0.8950 per EUR 1 (EUR is the base currency). Cost of Goods Sold (COGS) were on average £279,000. The euro is the currency for the deal and was negotiated 60 days for the payment. 60 days later the EUR appreciated, and the spot rate changed 45 pips. The net margin of this deal is:

A. 27.16%.

B. 27.53%.

C. 26.80%.

Solution: B is correct. The initial sale per unit was £383.06 (428 × 0.8950), the COGS £279 and the gross (profit) margin of £104.06 (+27.16%). The gross profit margin depends on the timing of revenue and expenses recognition and is not, in this case, sensitive to further changes in exchange rates. Therefore, further variations in exchange rates does not imply changes in revenue recognition.

However, the question is about the net margin of the deal, not on the gross profit margin of the deal.

Considering now that the focus is on the cash that resulted from this transaction. After 60 days the base currency (EUR) appreciated, meaning that now each euro buys more pounds. The new exchange rate implies a premium of 45 pips, or a value of 0.8995 (0.8950 + 45/10,000). The new rate yields a cash inflow of £384.99 (428 × 0.8995), making the net proceeds from the sale at £105.99 and the margin of 27.53%. This rationale also assumes that COGS are not sensitive to exchange rate effects.

Paper: "Economic Growth and Equity Investing" – *Financial Analyst Journal*

9) According to the findings of Cornell (2010), expected real returns on U.S. common stocks should not exceed, in real terms, about:

A. 1-2 percent.

B. 2-3 percent.

C. 4-5 percent.

Solution: C is correct.

10) The study of Cornell (2010) assumes that:

A. the growth is attributable exclusively to technological innovation if the economy has reached the steady rate.

B. the ratio of capital to labor (C/L) does not remain constant.

C. there is room for capital deepening because the capital stock is below the steady rate.

Solution: A is correct.

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