4. Principles of Macroeconomics

Starter Quiz ·

University Business Name: _____ Score: _____

1. Aurora: C 820, I 240, G 300, X 160, M 200. What is GDP, in billions?

   _____ £bn

2. At 3.5% growth a year, roughly how many years does income take to double?

   _____ years

3. Basket cost 920 last year, 975 this year. What is the CPI (base 100, one decimal)?

   _____

4. Reserves 100, reserve ratio 10%. After the first three rounds of lending, total new deposits (one decimal)?

   _____ £bn

5. MPC 0.75. The spending multiplier?

   _____

6. CA = -35 means what about saving and investment?

   ☐ nothing - the two are unrelated

   ☐ saving exceeds investment by 35

   ☐ investment exceeds national saving by 35

   ☐ the government deficit is 35

7. The mill sells 50 of flour to a bakery that sells 200 of bread. What belongs in GDP?

   ☐ 200: the final sale (or 50 + 150 value added - the same thing)

   ☐ 250: both sales

   ☐ 50: only the mill's sale

   ☐ 150: only the bakery's margin

8. A minister credits the fast half-decade to investment. What does the ledger say?

   ☐ the decomposition cannot say anything

   ☐ capital contributed 1.5 of the 4.0 points - TFP contributed more

   ☐ TFP was negative

   ☐ capital contributed all 4.0 points

9. What is special about unemployment of 5% on this curve?

☐ it is the lowest possible unemployment

☐ it is the natural rate - inflation sits at expectations and holds only there

☐ it is where inflation is zero

☐ nothing; all points are alike

10. Banks lend out the reserves customers deposit with them.

☐ True ☐ False

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Answers ·

University Business

1. **1320 £bn**

   $Y = 820 + 240 + 300 + 160 - 200 = 1{,}320$. Imports enter with a minus because they are already inside C, I and G.

2. **20 years**

   Rule of 70: $70/3.5 = 20$ years. At 1.75% the same income needs 40 - the whole two-times gap of the lesson.

3. **106**

   $975/920 \times 100 = 106.0$, so inflation was 6.0%.

4. **271 £bn**

   $100 + 90 + 81 = 271$. The chain continues: 72.9, 65.61... towards 1,000.

5. **4**

   $1/(1 - 0.75) = 4$. A 40 rise in G lifts Y by 160.

6. **investment exceeds national saving by 35**

   $CA = S - I$: a deficit is foreign saving financing domestic investment. The sign is a fact; the use of the funds is the judgement.

7. **200: the final sale (or 50 + 150 value added - the same thing)**

   Counting both sales double-counts the flour. Final-sale 200 equals value added 50 + 150 - two routes, one total.

8. **capital contributed 1.5 of the 4.0 points - TFP contributed more**

   Capital deepening delivered 1.5 points; TFP delivered 1.8 - more than half. The claim is arithmetically wrong, and the residual keeps it honest.'

9. **it is the natural rate - inflation sits at expectations and holds only there**

   At u = 5 inflation equals pi-e. Push below and inflation exceeds expectations - until expectations adjust and the trade-off expires.

10. **False**

    Lending creates a new deposit - money is born. Reserves exist to settle payments between banks; the loan does not hand them to anyone.