Introduction to Macroeconomics · M5 · 2013-14
Problem set 3

1. Definitions. For each pair of concepts, find something that they have in common and something that differentiates them: (i) securitization / primary market; (ii) financial asset / borrower; (iii) liquidity / maturity; (iv) security / equity; (v) deposit / bond; (vi) deposit / loan; (vii) secondary market / shadow banking; (viii) private credit to GDP / trade surplus; (ix) financial depth / inflation rate; (x) finacial depth / GDP; (xi) fundamental macroeconomic identity / savings; (xii) trade balance / government budget; (xiii) foreign saving / net exports; (xiv) consumption / bank deposit; and (xv) accounting identity / *post hoc…* fallacy.

2. Macroeconomic identities. Defining net private saving as $\mathbf{S-I}$, identify which of the following cases are possible and which are not (where government budget is defined as spending minus receipts).

Case	Net private saving	Government budget	Trade balance
1	rises	rises	rises
2	rises	falls	does not change
3	falls	does not change	rises
4	falls	rises	falls
5	falls	rises	does not change
6	does not change	rises	falls

3. Macroeconomic identities. Fill out the following table (where government budget is defined as spending minus receipts).

Case	Net private saving	Government budget	Trade balance
1	positive	positive	
2		negative	positive
3	negative		positive
4			zero
5	zero	negative	
6		zero	

4. Macroeconomic identities. Using the macroeconomic accounting identities, find net exports ($\mathbf{NX}$) if $\mathbf{S}=50$, $\mathbf{G}=20$, $\mathbf{TR}=5$, and $\mathbf{T}=30$.

5. Macroeconomic identities. (i) Define net private saving as $\mathbf{S-I}$ and the government budget as $\mathbf{G+TR-T}$. If both magnitudes double, what happens to the trade balance $\mathbf{NX}$? (ii) If net private saving is positive and the trade balance negative, is there a budget deficit or a budget surplus?

6. Macroeconomic identities. Show how to obtain the identity $\mathbf{I} \equiv \mathbf{S} + (\mathbf{T}-\mathbf{TR}-\mathbf{G}) + (\mathbf{IM}-\mathbf{EX})$ from the identity $\mathbf{Y} \equiv \mathbf{C}+\mathbf{I}+\mathbf{G}+\mathbf{NX}$.

7. Macroeconomic identities. Using the fundamental macroeconomic identities, establish if investment $\mathbf{I}$ increases, decreases, or does not change if the trade balance raises, the government budget (spending minus receipts) falls and private savings S is always zero.

8. Rate of return. (i) Compute the rate of return of a €120 loan when only 80 are repaid. (ii) What if 80 are loaned and 120 repaid?

9. Financial sector. According to the information provided in the class notes: (i) which of the two sectors (financial and real) is "larger"?; (ii) indicate three global characteristics of financial depth; (iii) does securitization have negative side effects on the real sector? In each case, identify the slide or slides that justify your answer.

10. Loans and economic activity. Consider slide *FAss*-30. Is the depicted evolution of loans more consistent with an expansion or with a contraction of economic activity? Explain your answer.

11. Private credit / GDP. Indicate a positive and a negative effect of a very high Private credit / GDP ratio.

12. Deficits and surpluses. Indicate a positive and a negative effect of a very high: (i) government budget deficit; (ii) trade deficit; (iii) government budget surplus; (iv) trade surplus.

13. Fallacies. Suggests two occurrences of each of the following fallacies: (i) *post hoc…*; (ii) *cum hoc*; (iii) composition; (iv) *petitio principii*.