

## ECON 1BB3 – FINAL EXAM REVIEW

### 1. Macro definitions and data

- i) Measuring output (Ch. 5)
  - definitions of GDP, GNP
  - components of GDP – important to understand what is included in each component (category) and be able to handle application questions
  - calculation of the GDP deflator
  - importance of real GDP (as a measure of well-being)
- ii) Measuring prices and inflation (Ch. 6)
  - calculating the CPI
  - definitions: price level, inflation rate
  - problems with the CPI: substitution bias, new goods, unmeasured quality change
  - comparison of GDP deflator and CPI (application questions)
  - ability to compare dollar figures from different years (simple ratio problem)
  - indexing
  - nominal vs. real interest rates

### 2. The economy in the long run

- i) Economic growth (Ch. 7)
  - definitions: productivity, human capital, physical capital, natural resources, labor, technology
  - constant returns to scale – what is it AND why is it important?
  - diminishing marginal product – what is it AND why is it important?
  - catch-up effect (including diagram of production function)
  - use of public policy to encourage growth (pages 137-157)
- ii) Saving and investment (Ch. 8)
  - definitions: financial market, bonds, stocks, financial intermediaries, banks, mutual funds, public saving, private saving, national saving, budget surplus and budget deficit
  - in a closed economy in the long run saving = investment (use the national income accounting identity to show that this is true)
  - the supply of (saving) and demand for (investment) loanable funds
  - equilibrium – interest rate, saving and investment
  - crowding out – be able to use diagram to answer questions about the variables ( $r$ ,  $I$ ,  $S$ ,  $S_p$ ,  $S_g$ ), including magnitudes (for example, which change is larger,  $S_p$  or  $S_g$  or  $S$ ?)

### iii) Unemployment (Ch. 9)

- definitions: adult population, unemployed, employed, not in the labor force, unemployment rate, employment rate, labor force participation rate, natural rate of unemployment, discouraged workers, frictional vs. structural unemployment – be able to handle application questions
- the impact of the following on labor markets and unemployment: minimum wage laws, unemployment insurance, unions, efficiency wages

### iv) Money and inflation in the long run (Ch. 10,11)

- 3 functions of money – medium of exchange, unit of account, store of value
- definitions: commodity money, fiat money, currency, demand deposits, central bank, reserves, fractional-reserve banking, reserve ratio, money multiplier, open market operations, bank rate, overnight rate, inflation tax, Fisher effect
- the Bank of Canada – monetary policy – open market operations (buying and selling government bonds), reserve requirements, overnight rate
- BoC does not CONTROL the money supply, but it does INFLUENCE it (private household decisions about currency vs. deposits and banks can hold excess reserves)
- be able to use the T-account to analyze deposits/withdrawals for an individual bank (both immediately and after all adjustments have taken place)
- bank runs – fractional reserve banking and deposit insurance
- the quantity equation and the velocity of money ( $M \times V = P \times Y$ ) – be able to answer application questions
- nominal GDP vs. real GDP (again)
- hyperinflation – what is it and what causes it?
- costs of inflation – shoeleather costs, menu costs, relative price changes, confusion, tax distortions
- unexpected inflation and redistribution of wealth
- how to calculate real and nominal before- and after-tax returns (application questions)
- equilibrium between money demand and money supply (long run – value of money on the vertical axis)

## 3. Open economy issues

### i) international trade and capital flows (Ch. 12)

- definitions: exports, imports, net exports, trade balance (and deficit/surplus), net capital outflow
- net capital outflow always equals net exports
- use the national income accounting identity and our definitions of saving to derive the following expression:  $S - I = NCO$

- ii) exchange rates (Ch. 12)
  - definitions: nominal exchange rate, real exchange rate, appreciation, depreciation
  - explain purchasing power parity
  - can PPP explain movements in the real exchange rate?
  - be able to use the Big Mac Index to compare PPP-predicted nominal exchange rates with actual nominal exchange rates (see problem 12 on page 296)
  - perfect capital mobility, interest rate parity, and the small open economy (SOE)

- iii) SOE model – market for loanable funds and market for foreign currency exchange (Ch. 13)

- be able to show positive and negative NCO on a loanable funds diagram ( $S - I$  at the world interest rate)
- explain why the demand for C\$ comes from NX and the supply of C\$ comes from NCO
- the position of the supply curve in the market for foreign currency exchange comes from NCO in the market for loanable funds
- be able to use the complete model to analyze comparative statics problems

#### 4. The economy in the short run

- i) Aggregate demand and aggregate supply (Ch. 14 and 15)
  - slope of the aggregate demand curve – wealth effect (consumption), interest-rate effect (investment), real exchange rate effect (net exports)
  - shifts in the AD curve –  $C, I, G, NX$
  - slope of the LRAS curve – vertical (price level does not affect any of the following variables:  $L, K, H, N$ )
  - shifts in LRAS –  $Y = AF(L, K, H, N)$  – any of the determining variables
  - slope of the SRAS – misperceptions, sticky wages, sticky prices
  - shifts in SRAS – all the same factors that shift LRAS plus changes in expected prices
  - understand the AD-AS diagram
  - definitions: recession, expansion, stagflation, accommodative policy, counter-cyclical policy
  - stylized business cycle diagram
  - three definitions of “recession”
  - there are two main causes of recession – shifts in AD and shifts in SRAS
  - if the economy is not in long run equilibrium, changes in the labour market cause the SRAS curve to shift – LR equilibrium is restored
- ii) Monetary and fiscal policy (Ch. 15)
  - money markets in the short run (interest rate on the vertical axis)

- how an increase in the money supply leads to an outward shift of AD (Figure 15-6, page 375)
  - definitions: the government spending multiplier, crowding out, and automatic stabilizers
  - timing issues of monetary and fiscal policy (lags)
- iii) Monetary and fiscal policy in a SOE (Ch. 15 plus lecture notes)
- everything hinges on  $r = r_w$
  - liquidity preference diagram plays a key role (in both monetary and fiscal policy)
  - monetary policy – starts with a change in  $M^S$ , this causes  $r \neq r_w$
  - fiscal policy – starts with a change in  $G$  (or  $T$ ), which leads to a change in  $M^D$ , this causes  $r \neq r_w$
  - once  $r$  is no longer equal to  $r_w$ , people (in Canada and the rest of the world) respond by buying the bonds that are paying the higher interest rate; in order to buy these bonds, they first buy the currency they need (either C\$ or foreign currency)
  - if we have flexible exchange rates, the exchange rate changes, causing  $NX$  to change (this will lead to a change in  $Y$ , and therefore a change in  $M^D$ , until  $r = r_w$ )
  - if we have fixed exchange rates, the central bank must increase or decrease the supply of C\$ to stop the exchange rate from changing – the  $MS$  curve will shift until  $r = r_w$
  - be able to do all four cases with contractionary policy
  - IMPORTANT: how we get away from  $r = r_w$  depends on the type of policy used; how we get back to  $r = r_w$  depends on the type of exchange rate regime
  - monetary policy can shift AD in a SOE with flexible exchange rates
  - fiscal policy can shift AD in a SOE with fixed exchange rates

Suggestions for studying:

- List all the variables we have learned about in class on one page. Try to remember which models incorporate which variables.
- Write all the equations on one page.
- Draw all the diagrams on one page. You will probably find that there are not as many as you think and being able to see them all on one page should lessen your anxiety level.
- Do all the recommended text book problems.
- Go back over the Aplia questions.
- Redo all the practice test questions.
- For any model in class (or on a practice test or recommended problem), try doing the analysis in the opposite direction – for example, if a question asks about an increase in the demand for money, try also doing a decrease in the demand for money.

