Exercise C Answer Guide

1. (a) $k^* = 2.69$ and $y^* = 1.34$.

(b) $k^* = 7.24$ and $y^* = 1.81$.

(c) Over 10 years y grows by 35% and N grows by 34% so output grows by approximately 69%.

2. (a) The inflation rate will be $\pi = 4 - 0.5(2) = 3$ percent per year.

(b) Velocity will grow by 1% per year.

3. (a) Please see the attached graph.

(b) Expansions (when the unemployment rate is falling) last longer than contractions (when it is rising).

(c) The series appear to be coincident, though the US rate may be leading by a month or so.

4. (a) The *IS* curve is:

$$0.4Y = 86 - 2\gamma$$

or

$$r = 43 - 0.2Y.$$

The *LM* curve is:

$$10r = Y - 20 - \frac{M}{P}.$$

(b) We find that i = 5 so r = 3 and I = 30 while P = 1.

(c) Now r = 7 and so i = 9 and I = 22, while P = 1.667.

(d) The *FE* line shifts left, and we move northwest to a new *IS* – *FE* intersection.



Canadian and US Unemployment Rates

5. (a) P = 2 and $r = i - \pi^e = 3 - 0 = 3$.

(b) In the classical version r is unchanged, and P = 2.2.

(c) In the Keynesian version, in the short run, the price level remains at P = 2. Thus Y = 110 so *i* falls to 2, as does r.

(d) The *LM* curve is a vertical line. It shifts right, then shifts back.

(e) In the classical model the price level jumps up to a new level and output does not change. In the Keynesian model the price level rises gradually, and output rises then returns to its original level.

6. (a)

Series	Р	Pfor	e _{nom}	е
2000:1	111.4	168.8	0.690	0.455
2005:1	125.3	190.7	0.816	0.536

(b) For Canada cumulative inflation was 12.47% while for the US it was 12.97%.

(c) The two values of e (written into the table in my case) are 0.455 and 0.536 so the real appreciation was 17.8%.

(d) A real appreciation usually results in a fall in net exports.

7. There is some evidence of a downward trend against the US dollar. But overall the statement seems to be incorrect because (i) Canada had a fixed exchange rate in the 1960s, (ii) there have been periods of appreciation such as the early 1990s and mid 2000s, and (iii) the dollar has tended to appreciate against some currencies other than the US dollar.