DIRECTIONS: This exam has two (2) sections; be sure to follow the directions for each section. If a question has multiple parts, indicate exactly where you answer each part.

1. LONG ANSWER (30 points)

ALL STUDENTS MUST ANSWER ONE (1) OF THE FOLLOWING QUESTIONS. (Ph.D. students should answer the first question.)

LA1. Use the method of undetermined coefficients to solve the monetary approach model under rational expectations when fundamentals $\tilde{m}$ are generated by

$$
\tilde{m}_t = \mu_0 + \mu_1 \tilde{m}_{t-1} + u_t
$$

with $u_t = \rho u_{t-1} + e_t$, and $e_t$ is white noise. What are the short-run and long-run effects on the exchange rate of a shock $e_t > 0$? Offer detailed economic intuition for these effects. How might you attempt to estimate this model? (Discuss data and methods.)

LA2. Present and discuss the crude monetary approach to flexible exchange rates. What are its predictions? (Derive them algebraically.) Does this simple model have any empirical relevance? (Explain in detail, referring to the Frenkel (1976) application of this model to the German hyperinflation and to any other relevant empirical evidence.)

LA3. What do we mean by “purchasing power parity”? Under what conditions should purchasing power parity hold? (Give an algebraic analysis.) Which commodities would you expect to satisfy these conditions? Relate the statistical notion of stationarity to the concept of purchasing power parity. Empirically, is purchasing power parity a good characterization of the relationship between exchange rates and relative price levels in the short run? In the long run? (Refer to specific studies or data to support your answers.)
2. **MULTIPLE CHOICE (1 point each)**

ANSWER ALL OF THESE. (Pick the one best answer.)

MC1. Why did Milton Friedman (and others) expect speculation to be stabilizing under floating exchange rates?

   (a) Speculation was poorly understood in the 1950s.
   (b) Monetarists have an inordinate faith in the stability of competitive markets.
   (c) Successful speculation increases the demand for foreign exchange when demand is low and increases the supply of foreign exchange when supply is low.
   (d) They carefully modeled the contribution of rational “noise traders”.
   (e) All of the above.

MC2. What are the units of the real exchange rate?

   (a) dollars per pound
   (b) USD/GBP
   (c) domestic currency units per foreign currency unit
   (d) domestic commodity baskets per foreign commodity basket
   (e) none of the above

MC3. Which of the following describe the pre-float expectations about floating exchange rates held by many economists?

   (a) Nominal exchange rates would be about as stable as policy “fundamentals”.
   (b) Real exchange rates would be very stable in the long run.
   (c) Large trade imbalances would be rare.
   (d) Instruments for hedging foreign exchange risk would become widely available.
   (e) all of the above.

MC4. Which of the following predictions of economists were realized with the advent of the general float?

   (a) Nominal exchange rates were as stable as monetary policy.
   (b) Monetary authorities held fewer reserves.
   (c) New financial instruments emerged to facilitate the hedging of foreign exchange risk
   (d) Large trade imbalances proved to be rare occurrences.
   (e) Real exchange rates proved to be very stable in the long run.

MC5. Which of the following describe Canada in the 2000s?

   (a) the CAD initially depreciated markedly against the USD but partly reversed this during the financial crisis
   (b) the CAD initially appreciated markedly against the USD but partly reversed this during the financial crisis
   (c) the CAD initially depreciated mildly against the USD but more than reversed this during the financial crisis
   (d) the CAD initially appreciated mildly against the USD but more than reversed this during the financial crisis
   (e) the CAD fluctuated randomly against the USD.

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MC6. If the current spot rate were 2USD/GBP and the one year forward rate were 2.02USD/GBP, then the forward discount on dollars would be

(a) 0.02
(b) 0.01
(c) 0.10
(d) 1.0
(e) 2.0

MC7. Which of the following is the ISO code for the Canadian dollar?

(a) DCA
(b) CAD
(c) DOLLARCA
(d) $CA
(e) 20016

MC8. Consider the simple characterization of money demand: \( L(i,Y) \). When the interest rate rises, we must see

(a) Output increase.
(b) \( P \) fall to restore money market equilibrium.
(c) \( H \) falls to restore money market equilibrium.
(d) Money demand go up because people want to take advantage of the higher rate of return.
(e) Money demand go down because the opportunity cost of holding real balances increases.

MC9. Consider the simple characterization of the money market: \( H/P = L(i,Y) \). According to the Classical model, when the interest rate rises

(a) output increases.
(b) \( P \) rises to restore money market equilibrium.
(c) \( H \) falls to restore money market equilibrium.
(d) money demand goes up because people want to take advantage of the higher rate of return.
(e) none of the above

MC10. The flexprice monetary approach to flexible exchange rates predicts that an increase in expected depreciation causes

(a) the spot rate to depreciate today.
(b) the spot rate to appreciate
(c) has no effect on the spot rate.
(d) results in a one period lagged effect on domestic prices.
(e) None of the above

MC11. Consider the crude monetary approach to exchange rate determination. When the foreign money supply increases,

(a) foreign output rises.
(b) the domestic spot rate depreciates
(c) the domestic spot rate appreciates
(d) a. and b.
MC12. Consider the flexprice monetary approach under rational expectations. Given a one-time, permanent, *unanticipated* increase in the growth rate of the money supply,

(a) At a given level of income, the inflation rate immediately adjusts to equal the new growth rate of money supply.
(b) The nominal interest rate rises, decreasing money demand, and this increases the equilibrium price level.
(c) We see an immediate increase in the domestic price level and a proportional depreciation of the exchange rate.
(d) Inflation and depreciation measured over an interval near the time of the policy change will actually exceed the new growth rate of the money supply.
(e) All of the above.

MC13. Consider the monetary approach to flexible exchange rates. The rational expectations solution for the current spot exchange rate implies that

(a) depends on all future fundamentals.
(b) depends on all expected future fundamentals.
(c) equals the current value of the fundamentals.
(d) b. and c.
(e) all of the above

MC14. Consider the monetary approach to flexible exchange rates under the assumption of “rational” expectations. Speculative bubbles are ruled out

(a) by the behavior of the fundamentals.
(b) by the behavior of arbitrageurs.
(c) only if the fundamentals are constant.
(d) only by assumption.
(e) in the short-run but not in the long-run.

END OF EXAM