

Name &amp; SID:

Date:

**Disclaimer:** The review may help you prepare for the exam. The review is not comprehensive and the selected topics may not be representative of the exam. In fact, we do not know what will be on the exam. We try to make our answers complete, but we cannot guarantee their correctness. Use at your own risk and use good judgment.

## William Chiu's Selected Topics

1. Nominal Exchange Rates, Real Exchange Rates, and Net Exports
2. Flexible Exchange Rate Regimes
3. Fixed Exchange Rate Regimes

## William's Chiu's Quick Notes

### Nominal Exchange Rate ( $e$ )

- The amount of foreign currency needed to buy one dollar.
- Don't get freaked out with " $e$ ". The short-run model for nominal exchange rates is the same "supply-and-demand" model that we learned in the beginning of the semester.
- The nominal exchange rate can be thought of as the relative price of the dollar expressed in another currency. *Just like there is a "price" for oranges, there is also a "price" for dollars.*
- **$e = \text{Yen per dollar} = \text{Yen/Dollar}$**
- Demand for dollars  $\rightarrow$  think about buyers of dollars = foreigners
- Supply for dollars  $\rightarrow$  think about sellers of dollars = Americans
- Demand for yen  $\rightarrow$  think about buyers of yen = Americans
- Supply for yen  $\rightarrow$  think about sellers of yen = Japanese
- Notice that Americans are part of "supply for dollars" and "demand for yen". Notice that the Japanese are part of "demand for dollars" and "supply for yen".
- The dollar "appreciates" when " $e$ " goes up. If the dollar "appreciates" against the yen, then the yen "depreciates" against the dollar.
- The dollar "depreciates" when " $e$ " goes down. If the dollar "depreciates" against the yen, then the yen "appreciates" against the dollar.
- There is a long-run model (i.e. purchasing power parity) for the nominal exchange rate, but it's complicated and might confuse you. Hence, you can learn about the long-run model in the textbook. I will stick with only short-run analysis of the exchange rate.

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Real Exchange Rate

- Relative cost of domestic goods and services
- The real exchange rate is a “number” and is *unitless*. Hence when we convert the nominal exchange rate into the real exchange by canceling out the units. Notice that “e” is expressed as yen per dollar and the price ratio cancels out yen and dollar to give us just a number.
- **Real Exchange Rate =  $e \times (P/P^f)$**
- Prices are sticky in the short-run. Hence an appreciation of the nominal exchange rate is an appreciation of the real exchange rate. A depreciation of the nominal rate is a depreciation of the real exchange rate.

Net Exports

- The exchange rate is a major determinant of exports and imports
- The US economy is less sensitive to trade fluctuations because the US has an enormous domestic economy relative to net exports.
- Developing countries and newly industrialized countries are mostly “export-led” and hence are very concerned about their exchange rates.
- Contrary to what you hear on TV, a weak dollar (i.e. the dollar depreciates) benefits our trade balance. A strong dollar (i.e. the dollar appreciates) hurts our trade balance.
- e goes up → dollar appreciates → relative cost of domestic goods and services go up, relative cost of foreign goods and services goes down → US exports less and imports more → NX down → Y down
- e goes down → dollar depreciates → relative cost of domestic goods and services goes down, relative cost of foreign goods and services goes up → US exports more and imports less → NX up → Y up
- Weak dollar helps NX
- Strong dollar hurts NX

Flexible versus Fixed Exchange Rates

- The United States (dollar) and the European Union (euro) have floating exchange rate regimes. A floating exchange rate is an exchange rate that determined by market forces.
- China (yuan) has a fixed exchange rate regime. A fixed exchange rate is an exchange rate that is determined and maintained by a government.
- The new hot trend is to declare a floating exchange rate regime, but (in fact) intervene in the foreign exchange market to maintain a virtual fixed exchange rate.

The Trilemma

- A country can only choose two of three of the following: (1) Free capital flows; (2) Autonomous monetary policy; (3) Fixed exchange rate regime

