

Issues in International Finance

Introduction

UW – Madison // Fall 2018

Before we get started...

- ▶ Me: Prof. Kim Ruhl
- ▶ School: B.S. Bowling Green (OH), Ph.D. U. Minnesota
 - ▶ Studied computer science, economics
- ▶ Work: Minneapolis Fed; U. Texas; NYU Stern; Penn State
- ▶ Research: International finance and macro, trade, multinationals
 - ▶ Data + computational models
 - ▶ If you are curious: kimjruhl.com/research
- ▶ Not work: Fishing, hiking, robots, computers


Roadmap

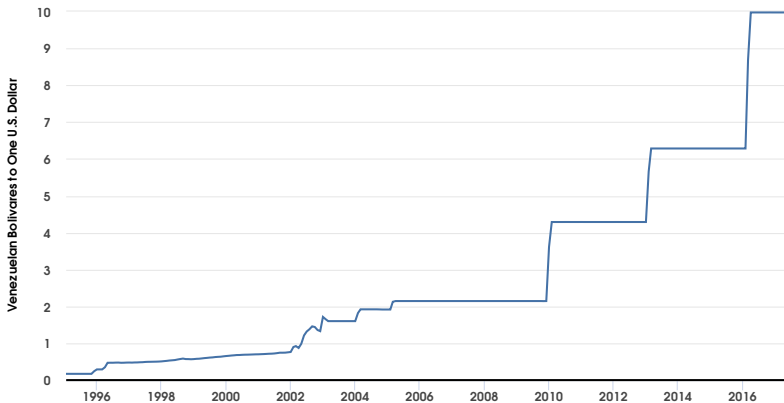
- ▶ Today
 1. Big picture
 - ▶ Exchange rates
 - ▶ International borrowing and lending
 - ▶ Open economy macroeconomics
 2. Course information
 - ▶ Syllabus material
- ▶ Coming up
 - ▶ Exchange rate fundamentals
 - ▶ Read: syllabus; *Introduction to Exchange Rates and the Foreign Exchange Market* in Feenstra and Taylor (Chapter 13)

Do not be shy! Ask questions, make comments.

Exchange rates

- ▶ What is an exchange rate?
- ▶ How are exchange rates determined?

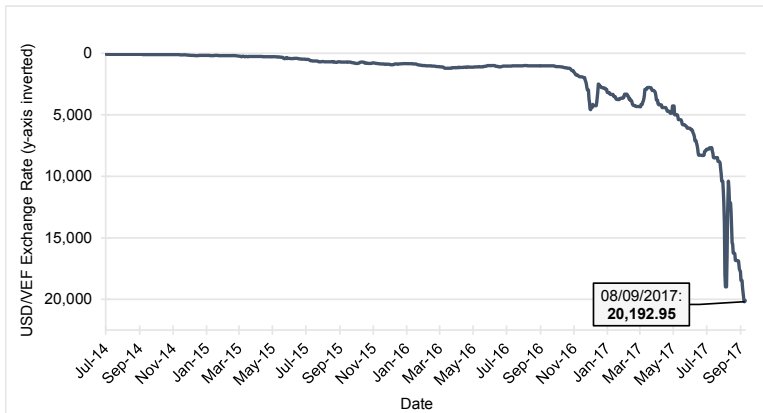
FRED  — Venezuela / U.S. Foreign Exchange Rate



Source: Board of Governors of the Federal Reserve System (US)

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Figure 1: The fall in the value of the Venezuelan Bolívar: the black market USD/ VEF exchange rate



Sources: *DolarToday*, *Dolar Paralelo*, *Paralelo Venezuela*, *Venezuela Econ*.

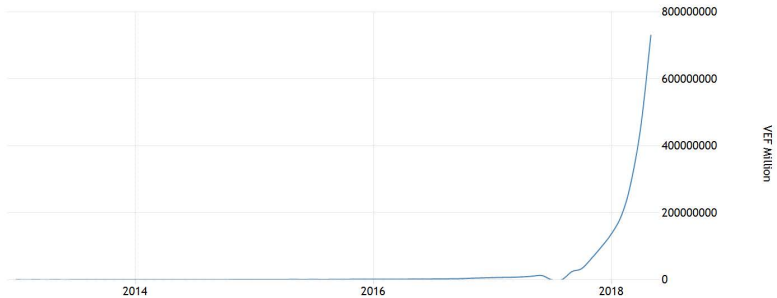
Prepared by Professor Steve H. Hanke, The Johns Hopkins University.

Note: For the purpose of illustrating the declining value of the Venezuelan bolívar relative to the US dollar, the y-axis is inverted.

Exchange rates

- ▶ What is an exchange rate?
- ▶ How are exchange rates determined?
 - ▶ Governments set the price (maybe)
 - ▶ Asset price no-arbitrage models
 - ▶ Goods price no-arbitrage models
- ▶ Monetary policy and exchange rates

VENEZUELA MONEY SUPPLY M0



SOURCE: TRADINGECONOMICS.COM | BANCO CENTRAL DE VENEZUELA

Exchange rates

- ▶ What is an exchange rate?
- ▶ How are exchange rates determined?
 - ▶ Governments set the price (maybe)
 - ▶ Asset price no-arbitrage models
 - ▶ Goods price no-arbitrage models
- ▶ Monetary policy and exchange rates
- ▶ The open-economy trilemma: pick two
 - ▶ Fixed exchange rate
 - ▶ Independent monetary policy
 - ▶ Free movement of capital
- ▶ Related topics: carry trade, speculative attacks

International borrowing and lending

- ▶ Unbalanced trade: trade deficits and surpluses

U.S. Current account balance (share of GDP %)

FRED 



Source: U.S. Bureau of Economic Analysis

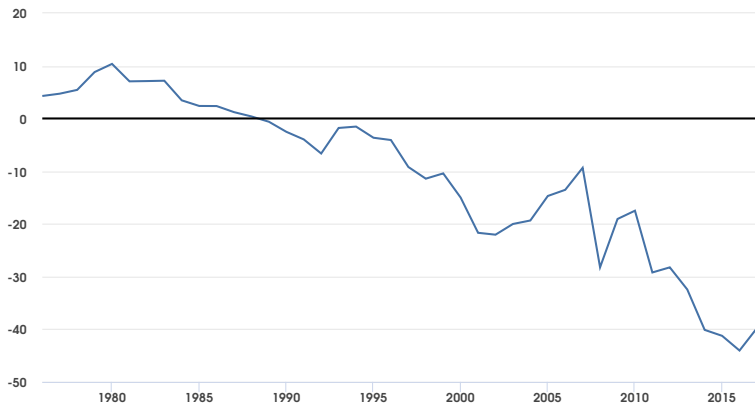
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International borrowing and lending

- ▶ Unbalanced trade: trade deficits and surpluses
- ▶ Unbalanced trade → borrowing or lending abroad

U.S. Net international investment position (share of GDP %)

FRED 



Source: U.S. Bureau of Economic Analysis

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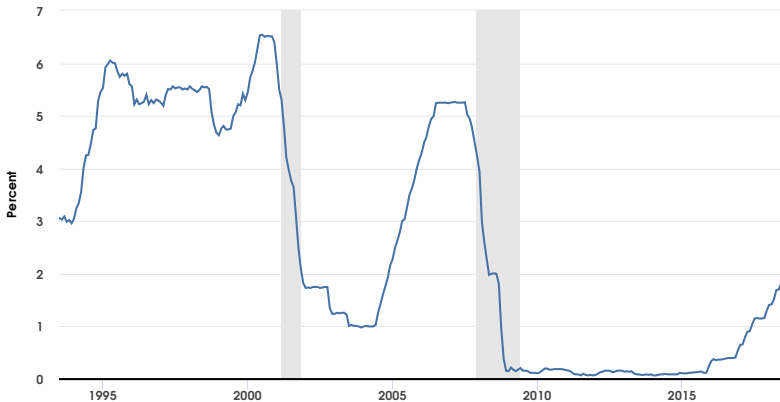
International borrowing and lending

- ▶ Unbalanced trade: trade deficits and surpluses
- ▶ Unbalanced trade → borrowing or lending abroad
- ▶ Why would a country borrow or lend to another?
 - ▶ Consumption smoothing
 - ▶ What kind of risk can be diversified?
 - ▶ Need dynamic models. . .

Open economy macroeconomics

- ▶ Exchange rates + unbalanced trade + model of consumption and investment (IS-LM)
- ▶ Use this model to study
 - ▶ Transmission of shocks across countries
 - ▶ Fiscal policy
 - ▶ Monetary policy
- ▶ Example: U.S. monetary policy in the last recession. . .

FRED  — Effective Federal Funds Rate



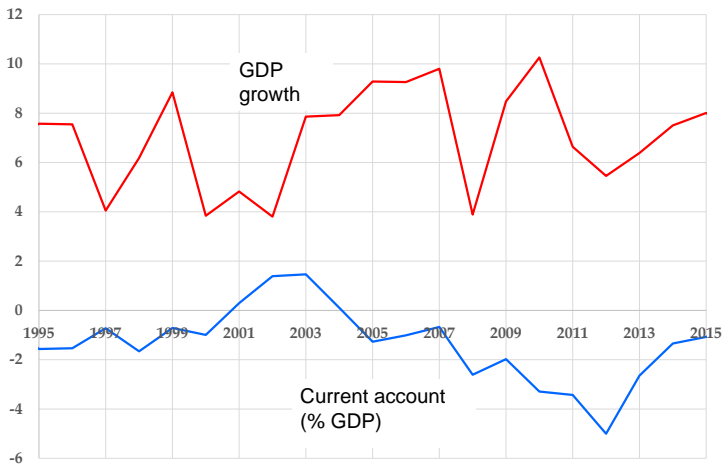
Shaded areas indicate U.S. recessions. Source: Board of Governors of the Federal Reserve System (US)

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Open economy macroeconomics

- ▶ Exchange rates + unbalanced trade + model of consumption and investment (IS-LM)
- ▶ Use this model to study
 - ▶ Transmission of shocks across countries
 - ▶ Fiscal policy
 - ▶ Monetary policy
- ▶ Example: U.S. monetary policy in the last recession. . .
 - ▶ Why would India (and others) be worried?

India



Open economy macroeconomics

- ▶ Exchange rates + unbalanced trade + model of consumption and investment (IS-LM)
- ▶ Use this model to study
 - ▶ Transmission of shocks across countries
 - ▶ Fiscal policy
 - ▶ Monetary policy
- ▶ Example: U.S. monetary policy in the last recession. . .
 - ▶ Why would India (and others) be worried?
 - ▶ How does policy affect output, prices, investment in other countries?

This semester in 4 lines

1. Exchange rates
 2. International borrowing and lending
 3. Open economy macroeconomics
 4. Applications to exchange rate regimes and the Euro
- ▶ For each segment: models + data

Course information

[Ask questions as we go]

Expectations

- ▶ Prerequisites: (ECON 301 or 311), (ECON 302 or 312), (ECON 310, STAT 302, or 311), and (MATH 221 or 275)
- ▶ Class is a mixture of data, models, real-world cases
 - ▶ Data skills: statistics, plotting [Excel, Stata, Python, etc.]
 - ▶ Model skills: algebra, calculus, numerical examples
 - ▶ Case studies: synthesize ideas, connect models to data
- ▶ Attendance
 - ▶ Not part of your grade, but highly recommended
 - ▶ Work through problems (useful for exams, problem sets)
 - ▶ Chance to ask questions and make comments

Course materials

- ▶ Textbook: *International Economics* by Feenstra and Taylor
 - ▶ Edition 3 or 4 (others?)
 - ▶ Lower cost *International Macroeconomics* also works
- ▶ On the web: research papers, media, notes
- ▶ Slides posted before class, updated afterwards
- ▶ Course web page:

<http://kimjruhl.com/fl8-int-fin>
- ▶ Week-by-week breakdown of class
 - ▶ Some readings require on-campus logins (then save or print)

Grades

Deliverable	Contribution
4 Problem Sets	4%
Exam I	32%
Exam II	32%
Exam III	32%

- ▶ Problem sets: 4 x 1% of final grade (\checkmark or $\checkmark + = 1\%$, $\checkmark - = 0\%$)
- ▶ Exams not cumulative, but the material is
- ▶ All exams: closed book, one page notes; review session in prior class

Attendance, again

- ▶ Excused absences
 - ▶ Miss an exam? Need documentation
 - ▶ If religious or university related, notify ASAP
- ▶ **Important dates**
 - ▶ Exams: October 4 (R), November 8 (R), December 11 (T)
 - ▶ Problem sets: Sept. 18, Oct. 2 & 23, Nov. 6, Dec. 4
 - ▶ Problem sets due 2:15pm on date specified; no late problem sets

Need some help?

- ▶ See me (7444 Soc Sci)
- ▶ Office hours:
 - ▶ Office hours: T/R 2:30-3:30
 - ▶ Or by appointment
- ▶ Send me an email (ruhl2@wisc.edu)