This review sheet is intended to cover everything that could be on the exam; however, it is possible that I will have accidentally left something off. You are still responsible for everything in the chapters covered except anything that I explicitly say you are not responsible for. Therefore, if I left something off of this sheet, it can still be on the exam. There will be no multiple-choice questions. Most of the questions will be like the ones in the homework assignments, and possibly a few definition questions, but I am more likely to ask questions that make you use the definitions rather than recite them. I will probably ask one of the questions from the book at the end of the chapters.

The review session's time will be determined, probably $4 / 25$.
Chapter 11: What are fiscal and monetary policies? What is a public good? Why should the government provide it? What are the differences between current and recurrent expenditures? Why do they matter? How do wages, salaries, capital goods, maintenance, military spending, interest payments, subsidies, state-owned enterprises (SOEs), and intergovernmental transfers affect the budget? Note that they vary greatly in size between countries, but each type of spending has its own unique properties. What is meant by tax capacity? What are the advantages and disadvantages of the following types of taxes: taxes on international trade, personal \& corporate income taxes, and sales \& excise taxes (including VATs)? What is the problem with raising taxes too high? What other sources of taxes might be available? How can changes in tax administration and/or tax reform help the government to collect more money? How do taxes affect saving, investment, income redistribution, and equity? Why might taxes be inefficiently collected?

Chapter 12: What is meant by the financial system? How does it relate to monetary policy? What are micro-credit institutions? What are the three uses of money? What is in, and what are the differences between M1, M2, and M3? What is meant by financial intermediation? How does it affect risk and stabilize the economy when working correctly? What are the problems with inflation? In general, what are the differences between chronic inflation, acute inflation, and hyperinflation? What are the effects of them? What is meant by fixed (pegged) exchange rate, adjustable peg, crawling peg, managed (dirty) float, wide band system, and clean float? What are the advantages and disadvantages of each? What are international reserves? Understand why $\mathbf{M}=\mathbf{D R}+\mathbf{I R}$. Use it to explain why having a fixed exchange rate causes the central bank to lose control over the money supply. What are the four tools the central bank can use to control the money supply. (Moral suasion is not in my macroeconomics textbooks because it is ineffective.) How can credit ceilings be used to affect the inflation rate? What is meant by shallow finance and financial deepening? How do the following cause shallow finance: low real interest rates, restrictions on entry to the financial market, and high required reserves? What are informal credit markets and micro-finance?

Chapter 13: What is the difference between illiquid and insolvent? What are the advantages and disadvantages of foreign borrowing? For the six debt indicators on Page 461, understand why those would indicate too large of a debt, either illiquidity or insolvency and either a debt service problem, external transfer problem, or internal transfer problem. Understand the equations on Pages 462 463 and how they relate to the issue, especially 13-2 and 13-4. What is meant by debt overhang? What can cause a debt crisis? What is the impact upon the country of the crises? How can they get out of the problem? What are the pluses and minuses of the proposals on Pages 471 and 472? How can shortterm capital flows affect the crises? What is meant by defensive lending and completion point? Why do they matter? How do short-term loans help the problem? What is a creditor panic? What causes it? What can be done about it? What are the advantages and disadvantages of the solutions on Pages 489-

490? How does moral hazard relate to the situations?
Chapter 20: What are greenhouse gases? Be able to draw and explain the four different Environmental Kuznet Curves. Understand what the terms comprehensive wealth, total wealth, produced capital, natural capital, and intangible capital and why those are important. Understand how we calculate saving, net saving (NS), and adjusted net saving (ANS). Why do we care about ANS and the ANS Gap and the Malthusian term? What are externalities and common-pool resources (CPRs)? Understand the problems they cause. Be able to use the S/D (SMC/PMC/D) diagram to explain why externalities result in sub-optimal outputs. Explain why the Coase Theorem means the end result does not depend upon who has the property rights. Understand when it may not hold and why it might not hold then. Be able to use the MEC/MAC diagram to find the optimal level of pollution. Understand why the curves look like I drew rather than what the book drew. How can taxes, subsidies, tradable permits (cap-and-trade), and regulations be used to get the market to the optimal point? What are the advantages and disadvantages of them? How might informal regulation work? Why is climate change such a big problem and why is it hard to address?

This is the non-graded Assignment \#9A that will be reviewed with Assignment \#9.

1) (15 points each) For each of the following exchange rate regimes, define it. Explain why a developing country might want that type of exchange rate.
A) Crawling peg.
B) Managed float.
2) (10 points) Explain how negative real interest rates can cause shallow finance.
3) (10 points) Explain how open market operations can be used to control the inflation rate.
4) (10 points each) For each of the following, explain why the criteria would mean the debt is not sustainable. In your explanation, explain whether it is a debt service problem, external transfer problem, or an internal transfer problem. Explain your logic.
A) NPV debt/revenue is $250 \%$
B) Debt service/exports is $30 \%$
C) NPV debt/GDP is $55 \%$
5) (10 points) Explain the difference between being illiquid and insolvent.

## Review for the Final

The final will be Monday $5 / 3$ at $7: 00$. The review session will be at a time TBD, probably Sunday $5 / 2$. I will try to have the points for questions on the chapters be proportional to the number of classes spent on each chapter. If there is a topic I wanted to ask, I will ask it now. Obviously, I will also ask about the big topics. Therefore, if there is a graph or a topic we spent a lot of time on, it will be on the exam.

The paper will be due at the time of the exam. I will want it and all of your sources turned in on Canvas. What I mean by your sources, is this. I want an electronic copy of the source. If it is already a pdf or Word document, great. If it is a webpage, save it as a pdf or take a screen grab of it.

