INSTRUCTIONS. The exam is in two sections. All answers are short essays. The exam is designed to take you 2 hours or less (you have 3 hours to complete it). Please answer all 5 questions in section 1, and then choose any 5 questions from section 2. If you run out of space in answering any question, you can continue on the additional pages at the end of the exam book.

Section 1. Answer all 5 questions in this section. These questions are worth 12 points each.

1. The government sets up a microfinance program in a rural low-income area. The program gives small loans of a fixed amount and with a maturity of 6 months. To be considered for a loan, the household must agree to fill out an extensive budget survey at the time of application and again 1 year later, whether they receive a loan or not. The government hires you to determine the impact of the program on household consumption expenditures. You are able to construct the following table using the available data:

<table>
<thead>
<tr>
<th>Time of budget survey</th>
<th>Loan approval status of the household</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Loan approved</td>
</tr>
<tr>
<td>At loan application time</td>
<td>400</td>
</tr>
<tr>
<td>1 year later</td>
<td>440</td>
</tr>
</tbody>
</table>

Write a paragraph providing your ‘best’ estimate of the effect of the program and explaining at least two possible sources of bias in this estimate.
2. Miguel and Kremer (2004) designed a randomized intervention to assess the impact of a cheap drug treatment for intestinal worms on infection rates and school attendance among schoolchildren in Kenya. Treatment was given in 1998. The table below gives average infection rates for the treatment and control groups both before treatment and some months after treatment.

<table>
<thead>
<tr>
<th>Treatment status of children:</th>
<th>Time of survey</th>
<th>In treatment schools</th>
<th>In control schools</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Early 1998</td>
<td>0.38</td>
<td>0.37</td>
</tr>
<tr>
<td></td>
<td>Early 1999</td>
<td>0.27</td>
<td>0.52</td>
</tr>
</tbody>
</table>

2.1. Assuming no treatment externalities, the estimated effect of the treatment is ______________________ (fill in your estimate).

2.2. If there are treatment externalities, this estimate is biased ______________________ (towards a strong effect, towards a weak effect, not at all).

2.3. Briefly: how did Miguel and Kremer handle treatment externalities, and were these effects quantitatively important?
3. Korea used industrial policy aggressively between the 1960s and 1990s, and the country grew rapidly during most or all of this period. Why are Noland and Pack skeptical of the contribution of industrial policy to growth in Korea?
4. Read the following short article and then draft a short memo for Finance Minister Duffuor, either (1) explaining to Parliament exactly why this legislation is important for achieving Ghana’s growth objectives, or (2) explaining to the Minister one or more major problems with the legislation.

Ghana Approves Amendment to Use Oil as Loan Collateral
December 09, 2010, 11:14 AM EST
By Jason McLure

Dec. 9 (Bloomberg) -- Ghana’s parliament approved a plan to allow the government to use future oil revenue as collateral for loans that would be taken to develop infrastructure in Africa’s newest crude exporter.

The ruling National Democratic Congress won a vote that was split along party lines to amend part of a proposed policy that will control how revenue from the nascent energy industry are spent.

Under the bill that is still being considered by lawmakers, Ghana must set aside 30 percent of its oil revenue in a savings account for when output dries up and a second account that will be tapped in the event of sudden declines in prices or production. The government can use the remaining 70 percent for spending or to finance borrowing.

The opposition New Patriotic Party opposed the measure, saying it risked crippling the country with debt.

“Other countries, they get easy access to loans and they use it for frivolous projects,” said George Gyan-Baffour, an opposition member and former deputy finance minister.

Ghana will begin pumping oil from its offshore Jubilee field Dec. 15. The government will earn 584 million cedis ($400 million) in 2011, Finance Minister Kwabena Duffuor said Nov. 18. The World Bank estimates oil could earn the government an average of $1 billion per year through 2029.

--Editors: Emily Bowers, Antony Sguazzin.
5. Identify three innovative features of micro-lending by the Grameen Bank. Explain how these innovations work and why they are regarded as important in supporting the flow of credit. Is the Grameen Bank financially sustainable (i.e., without a public subsidy)? Should it be?
Section 2. Choose 5 out of these 7 short questions, and respond in the space allotted. These questions are worth 8 points each.

6. Identify two important differences between the debt crisis of the 1980s and the emerging-market financial crises of the 1990s.

7. What distinguishes the private from the social return to primary education, and why is the social return thought to be larger for girls than for boys?

8. Classical theories of fertility predict a positive link between household income and fertility. How (and why) do the predictions of the neoclassical theory of fertility differ?
9. Wood and Berge argue that Sub-Saharan Africa has a deep comparative advantage in primary products like cotton, oil, and gold. What is the source of this comparative advantage?

10. What explains the transition from conditionality to selectivity in foreign aid?

11. What is the Marshallian inefficiency of sharecropping? Under what conditions might sharecropping be efficient for a landlord and tenant, despite the presence of the Marshallian inefficiency?
12. Morduch and some others claim that the introduction of rainfall insurance may help rural households escape poverty over time. What might the source of this growth effect be, and why is such an insurance market missing?