Economics 39F: Final Exam

Please be concise and to the point. Print your name on your exam and turn it in with your blue books. You have 3 hours (but I doubt you will need it). The exam has 100 points. Answer all 3 questions. You should spend the first 10 minutes reading the exam. Good luck!

1. (50 points) Two major economic policy issues currently faced by the United States are the passage of the Trans-Pacific Partnership (TPP) and immigration reform. Offering a program of Trade Adjustment Assistance (TAA) has been an important part of the Obama Administration’s proposed TPP legislative package all along. For example, as Bloomberg Politics noted on June 25  2015:

The U.S. House of Representatives passed a $450 million worker-assistance measure Thursday…sending it to President Barack Obama for his signature as part of a package of trade legislation. The vote was 286-138. The Trade Adjustment Assistance legislation continues a program that helps U.S. workers who lose their jobs as a result of international trade pacts.

“This week’s votes represent a much-needed win for hardworking American families,” Obama said in an e-mailed statement. He said he will sign the trade bills as soon as they reach his desk…Passage of the worker aid measure was one of the last elements of a hard-fought win by Obama to push through a trade package that is a key second-term priority, even against opposition from his party. His victory was underscored by the Senate’s final passage Wednesday of a measure giving him fast-track trade authority…[which] would let Obama submit agreements to Congress for an expedited, up-or-down vote without amendments. His administration hopes to complete a 12-country trade deal known as the Trans-Pacific Partnership this year...

Interestingly, an analogous program to help U.S. workers displaced by immigration is not part of the debate on immigration reform. Using the Specific Factors Model and the Heckscher-Ohlin Model, your job is to assess whether a program of Immigration Adjustment Assistance (IAA) would be a sensible thing to consider alongside immigration reform, much as TAA is viewed as an important part of trade pacts.

In particular, assuming that the introduction of adjustment assistance (either TAA or IAA) would convert the US economy from a small open Specific-Factors-Model economy (with skilled Food workers stuck in the Food sector, skilled Clothing workers stuck in the Clothing sector, and unskilled labor perfectly mobile between the two sectors) to a small open Heckscher-Ohlin economy (with skilled labor and unskilled labor both perfectly mobile between the Clothing and Food sectors, and with Food skilled-labor intensive relative to Clothing and the US a skilled-labor abundant country), answer the following questions [You may assume that the US produces both goods before and after any change you are asked to consider below]:

a) Would the introduction of TAA help to ensure that no factor in the US economy suffered a real income decline as a result of a reduction in the US import tariff?

b) Would the introduction of IAA help to ensure that no factor in the US economy suffered a real income decline as a result of an influx of foreign unskilled labor?

c) Use your answers to parts (a) and (b) to comment on the efficacy of TAA and IAA as programs that might reasonably be touted by the US government as ensuring that everyone in the US economy can gain from US trade liberalization and US immigration reform, respectively. Make sure to comment specifically on whether IIA could be designed simply as a relocation program offered to immigrants.
2. (40 points) On October 28 2015, the *New York Times* ran an article with the headline “Nationwide Test Shows Dip in Students’ Math Abilities.” The article begins with:

For the first time since 1990, the mathematical skills of American students have dropped, according to results of a nationwide test released by the Education Department on Wednesday. The decline appeared in both Grades 4 and 8 in an exam administered every two years as the National Assessment of Educational Progress and sometimes called “the nation’s report card.”

The dip in scores comes as the country’s employers demand workers with ever-stronger skills in mathematics to compete in a global economy. It also comes as states grapple with the new Common Core academic standards and a rebellion against them.

Using the Continuum-of-Goods Ricardian Trade Model, with the Home country representing the United States and the Foreign country representing the rest of the world, answer the following questions:

a) First, let us suppose that the decline in US math ability translates into an across-the-board increase in the amount of labor used to produce a unit of a good $z$ for every $z$ (i.e., for $z \in [0,1]$). What will be the impact of the decline in US math ability on US competitiveness and on the US real wage in this case?

b) Second, let us suppose that the decline in US math abilities translates into an increase in the amount of labor used to produce a unit of a good $z$ only for a range of goods that are high-US-comparative advantage goods (i.e., only for a range of $z$ that lies far to the left of the marginal good in the initial equilibrium). What will be the impact of the decline in US math abilities on US competitiveness and on the US real wage in this case? [You may continue to assume that all workers are identical and receive a common wage even in this case, and it is simply that the production of some goods are sensitive to math skills and others are not].

3. (10 points) Using the Specific Factors Model, confirm that Adam Smith’s “Invisible Hand Theorem” is correct. That is, show that when capitalists in the Clothing sector hire workers with the goal of maximizing their own rents, taking the wage of labor and the price of Clothing as given, and when land-owners in the Food sector hire workers with the goal of maximizing their own rents, taking the wage of labor and the price of Food as given, the capitalists and the land-owners end up guiding the economy to a point on the production possibilities frontier where the implied production of Clothing and Food maximizes the economy’s GNP at the existing prices of Clothing and Food.

**Extra Credit** (5 points) Pose a question on a trade policy topic that your grandmother might ask you at the Thanksgiving dinner table this Thursday, and provide an answer that is supported by the models we have covered in Econ 39F this Fall but that is translated into words and intuitive statements that your grandmother could appreciate without having taken Econ 39F herself.