### Problems and discussion questions

#### Chapter 2

1. Explain which push and pull factors apply to the following groups of immigrants: economic migrants; foreign students; family members; refugees and asylum seekers; and victims of human trafficking.

Type of migrant	Push factors	Pull factors	
Economic migrants	High unemployment, high taxes, low wages	Low unemployment, low taxes, high wages	
	Confiscation of assets	Property rights/law and order	
	Poverty/limited safety net	Generous welfare benefits	
Foreign students	Limited access to education or poor quality of education	Higher quality of education and more educational resources abroad	
	High unemployment or low wages at home—studying abroad may be a gateway to a better job in the other country	Low unemployment, high wages—a signal of good future employment prospects there	
	Compulsory military service— education abroad may allow students to avoid military service	Family and friends: networks may help support a foreign student by providing a place to live or emotional support	
Family members	Poverty, poor health care— immigrants may be better provided for if they join family members abroad	Family and friends	
Refugees and asylum seekers	Natural disasters and famine War and oppression/persecution	Rights and freedoms / law and order	
Victims of human trafficking	War, corruption, crime, poverty—opportunities for human traffickers to take advantage of institutional weaknesses and desperate people	Expectations of better jobs—victims may be misled into believing they will have better opportunities by leaving	

2. Using exchange-rate data, such as that available from the World Bank, convert the passport visas for various countries in Table 2.2 into a common currency. Which country

# has the highest fee, and which has the lowest? What factors do you think determine how much a country charges for a passport?

The World Bank's exchange rates are available at http://data.worldbank.org/indicator/PA.NUS.FCRF. The World Bank does not report an exchange rate for the euro, but it is available from the St. Louis Fed's FRED database at http://research.stlouisfed.org/fred2/data/AEXUSEU.txt. The answers shown below are based on 2013 data from those websites. Using those data, the highest is Australia and the lowest is India.

#### Passport fees around the world

Country	Local currency	Exchange rate (per US\$)	Cost in US\$
Australia	A\$208	1.04	\$200
Canada	C\$87	1.03	\$84.47
China	200 yuan	6.20	\$32.26
France	89 €	0.75	\$118.67
Germany	59 €	0.75	\$78.67
India	1000Rs	58.60	\$17.06
Indonesia	250,000 rupiah	10,461.24	\$23.90
Ireland	80 €	0.75	\$106.67
Israel	NIS 220	3.61	\$60.94
Japan	16,000¥	97.60	\$163.93
Mexico	1795 pesos	12.77	\$140.56
New Zealand	NZ\$150	1.22	\$122.95
Russia	2500 rubles	31.84	\$78.52
Singapore	S\$80	1.25	\$64
South Africa	R190	9.66	\$19.67
South Korea	55,000 won	1,094.85	\$50.25
Thailand	1000 baht	30.73	\$32.54
Trinidad & Tobago	TT\$250	6.44	\$38.82
United Kingdom	£77.50	0.64	\$121.09
United States	US\$135		\$135

Countries that want to reduce emigration may charge more for passports, while countries that do not face high levels of emigration may charge less. Low-income countries may charge less than high-income countries. With the exception of Mexico, that appears to be the case.

## 3. Why would a country waive visa requirements for immigrants from some countries but not from others?

A country may be subject to international agreements that require it to waive visa requirements for citizens of certain countries. e.g., the Schengen Agreement requires countries to allow free movement within their borders. Historical or ethnic ties as well as geopolitical factors can also cause a country's immigration policy to vary by source country.

### 4. Explain in what region(s) in Figure 2.3 the husband or wife is a tied stayer or a tied mover.

The wife is a tied stayer in Region E. She would migrate if she were single because her gains from moving are positive, but she stays because her husband's losses exceed her gains. The wife is a tied mover in Region B. She has a loss that is outweighed by her husband's gains.

The husband is a tied stayer in Region A, where his wife's losses outweigh his gains. The husband is a tied mover in Region D, where his wife's gains outweigh his losses.

5. Suppose a person has a utility function that increases linearly with net income. Suppose the person can earn the equivalent of \$8,000 if employed in the origin country and \$12,000 if employed in the destination country. At what level of migration costs is this person indifferent to moving if the probability of employment is 100 percent in both countries? If migration costs \$1,000, and the person has a 90 percent chance of being employed in the origin country, how high does the probability of employment in the destination need to be for this person to be willing to move?

If the probability of employment is 100 percent, the person is indifferent to moving when migration costs are \$4,000.

A person is indifferent to moving when EV(Origin) = EV(Destination) - Migration costs. This means that  $8,000*0.9 = 12,000*prob(Empl_D) - 1,000$ , or  $prob(Empl_D) = 0.683$ . If the probability of employment in the destination is higher than 68.3 per cent, the person moves; if it is lower, the person doesn't move.

6. Describe the differences between a person with a low discount rate and a person with a high discount rate. How does the discount rate affect the decision to migrate? Do you think you have a high or low discount rate, and why? Similarly, how does risk aversion affect the decision to migrate?

A person with a low discount rate places a relatively higher value on future income than a person with a high discount rate (i.e., future income has a relatively larger effect on present decisions for a person with a low discount rate). The discount rate affects the decision to migrate because people make the decision to move or stay based on the present discounted value of costs and benefits (including future income). If a person must undertake costs in the present to migrate but expects to earn more in the future by migrating, she will be more likely to migrate if she has a low discount rate. Someone who discounts these higher future earnings more heavily (but still faces upfront migration costs) will be less likely to move than someone who places more value on future earnings.

Answers will vary as to whether students have a high or low discount rate. Students might point to their willingness to incur costs now for future potential gains. Acquiring an education is a good example.

Migrating involves many risks. For example, migrants often face greater uncertainty about their job prospects in the destination than in the origin. People who are more risk averse are therefore less likely to migrate.

### 7. Describe the determinants of an interesting migrant flow. Which push and pull factors influenced that flow?

(Answers will vary.)

8. A couple is considering moving to Tokyo from New York. Ashley's cost of moving is \$300, and Casey's cost of moving is \$600. Ashley earns \$500 in New York and \$550 in Tokyo (after converting earnings from yen into dollars). Casey earns \$200 in New York and \$1,000 in Tokyo. Will they move as a couple? Is one of them a tied mover or a tied stayer?

#### Stay in New York

Ashley earns \$500 Casey earns \$200 Cost of moving \$0 Net \$700

#### Move to Tokyo

Ashley earns \$550 Casey earns \$1,000 Cost of moving: \$300

Cost of moving: \$300+\$600=\$900

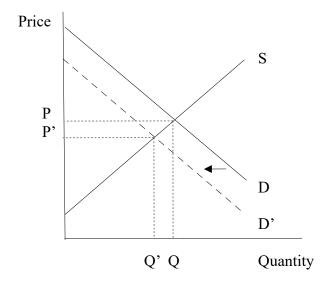
Net \$650

They will not move as a couple because the costs of moving outweigh the wage gains. Casey is a tied stayer. Casey's private gains from moving to Tokyo are \$200 (\$800 wage gain less \$600 in costs).

9. Using the supply-and-demand model of smuggling services, explain how an increase in the number of visas affects the quantity and price of smuggling services.

An increase in the number of visas reduces the demand for smuggling services. It does not affect supply (although quantity supplied will fall). As a result, the quantity and price both fall (see Answers Figure 2.1 below).

#### **Answers Figure 2.1**



10. Think about a friend's or relative's migration experience. Describe where that person came from, and when, how and why that person migrated. Consider the following questions: Was that person a voluntary or involuntary migrant? Did networks help that person migrate, and how? What push factors may have contributed to her decision to migrate?

(Answers will vary.)