Exploring Macroeconomics (Canadian) 5th edition Sexton Solutions Manual

SKU: 9780176877040-SOLUTIONS

FOR YOUR REVIEW

ANSWER KEY

CHAPTER 1

THE ROLE AND METHOD OF ECONOMICS

SECTION 1.1 ECONOMICS: A BRIEF INTRODUCTION

1. The definition of *economics* must recognize the central parts of the economist's point of view: Resources are scarce, scarcity forces us to make choices, and the cost of any choice is the cost of the lost opportunity with the highest value.

2. a. Microeconomics
   b. Macroeconomics
   c. Microeconomics
   d. Macroeconomics
   e. Microeconomics

SECTION 1.2 ECONOMIC THEORY

3. a. The first is positive and the other is normative. The first statement (a positive statement) expresses a fact or a testable theory that a higher income tax rate would generate increased tax revenues. The second statement (a normative statement) expresses an opinion regarding how any additional tax revenues should be used.
   b. Both are normative statements that express opinions. The first regards the relative value of studying physics as opposed to studying sociology, and the second regards the value of studying either physics or sociology.
   c. Both statements are positive. They are expressions of facts or testable theories regarding the relationship between the price of wheat and how much wheat will be purchased and produced.
   d. The first is positive and the other is normative. The first statement (positive) expresses a fact or testable theory regarding the relationship between the price of butter and how much will be purchased. The second statement (normative) is an expression of opinion about the social value of buying butter.
   e. Both statements are positive. They are expressions of fact or testable theory regarding demographic change.

4. a. Positive. The statement is a testable hypothesis.
   b. Normative. Asserting that funding for social assistance should be reduced contains a value judgment about the costs and benefits of doing so.
   c. Positive. The statement expresses a fact or a testable theory that tariffs will result in higher prices for domestic wine.
   d. Positive. The statement could be confirmed or refuted by empirical data.
   e. Normative. A benefit of charging a provincial sales tax on Internet sales is that it will level the playing field with non-Internet retailers. However, a cost of this same tax is that it will reduce

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total Internet sales and possibly have other negative effects. The statement implies a value judgment that the benefits outweigh the costs.

f. Positive. The statement is subject to empirical testing.

5. a. This involves confusing correlation with causation.
   b. This involves confusing correlation with causation.
   c. This involves the fallacy of composition.
   d. This is a violation of the *ceteris paribus* conditions.
   e. There is no fallacy in this statement.

6. Observation and prediction are more difficult in economics than in chemistry because, unlike chemists, economists generally cannot observe behaviour in a laboratory setting where all relevant environmental variables can be carefully controlled. Economists study economic behaviour in the real world, where many variables influence behaviour simultaneously. It is difficult in a complex global economy to observe and predict relationships between variables, isolated from other effects.

7. Economics is concerned with reaching generalizations about human behaviour. If you generalize on the basis of observed individual behavior, you risk committing the fallacy of composition. Generalizations based on observed group behaviour are likely to be both more realistic and useful (reliable).

SECTION 1.3 SCARCITY

8. Being poor means that you have access to few resources, which limits the goods and services you consume. Scarcity means you don't have enough resources to do everything you want to do, so you have to make choices. Everyone experiences scarcity, because we can always think of more things that we want than we can produce with our resources.

9. The automobile freed Canadians to travel and helped to create the tourism business. New wants included motels, resorts, and theme parks. The increased importance of automobile and truck transportation also created the desire for more and better roads and highways. The automobile also allowed people to live farther from where they worked, so that people wanted more land and newer houses.

10. Scarce goods are those that people pay for in either time or money or, in other words, have an opportunity cost. Garbage and dirty air in the city are not scarce goods since we either pay to get rid of them or pay with the consequences of their presence. Similarly, salt water is not a scarce good. Although it is in limited supply, the current abundance of salt water makes it seem limitless. Clothes, clean air, and public libraries are scarce goods because their production requires the use of scarce resources that could be used for the production of other goods.

SECTION 1.4 OPPORTUNITY COST

11. Since Sarah's time is probably worth more during the school year (it would cost part of her salary), the opportunity cost of the trip is higher in February than in July.

12. The opportunity cost of this decision valued in dollars would be $33.50 ($30 forgone pay for not tutoring for two hours + $3.50 for the cup of coffee).

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13. a. The opportunity cost of going to college or university includes the income you could have earned by working instead; it also includes the money spent on school-specific expenses like tuition and textbooks. Room and board and transportation would not necessarily be included, since you would need those services even if you were not going to school.
    b. The opportunity cost of missing a lecture includes the potential damage to one's grade in a course from not being present while important subject material is covered, as well as the knowledge's forgone value in the "real world." The magnitude of the opportunity cost depends partly on how much essential information the instructor provides during the missed class session or if any activities were conducted.
    c. The opportunity cost of spending $100 today is the $105 you could have spent next year. If you are withdrawing the money just to have cash in your pocket, the opportunity cost of holding money is the 5 percent interest you could have been earning.
    d. The opportunity cost of snowboarding the weekend before final examinations is the expected reduction in grades that will result, in addition to the cost of a lift ticket.

14. Inactions are choices not to do something. Inactions, like actions, have consequences. For example, if you choose not to study, you may fail an exam.

15. One of the most important resources used raising children has historically been the mother's time. As opportunities for women to hold jobs, start businesses, and participate in political life increase, the cost of using women's time for raising children increases. As the cost of the mother's time rises, fewer children are born.

SECTION 1.5 MARGINAL THINKING

16. a. $50; $25
    b. 3; 5; Mark would go as long as his marginal benefit was greater than the admission price.
    c. Yes; 6; Mark would buy the pass because his total benefits exceed his total cost. Once he has the pass, the marginal cost of attending one more day becomes zero, so he will go as long as his marginal benefits exceed zero.

17. a. $57; $88
    b. 43; 44; he would produce widgets as long as the price (marginal benefit) exceeded the marginal cost.

18. The expected marginal benefits of jaywalking are the time saved and convenience of crossing the street where you want. The expected marginal costs are the additional risk of being hit by a car and the risk of being fined for jaywalking.
    a. Increases cost by increasing the risk of being hit by a car.
    b. Lowers cost by lowering the risk of being hit by a car and the risk of being fined.
    c. Increases the benefit because of the higher value of saved time.
    d. Increases cost because of a higher risk of receiving a fine.
    e. The time and convenience benefits are larger.
    f. The time and convenience benefits are smaller.

19. Marginal thinking involves incremental changes to a plan of action. All of the activities listed involve marginal thinking. When studying, one chooses whether or not to study for one more hour; when eating, one chooses whether or not to consume one more portion; when driving, one chooses whether or not to travel one more kilometre (or one more kilometre per hour); when shopping, one chooses whether or not to buy one more item or visit one more store; when getting ready for a night out, one

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chooses whether or not to spend another minute styling one's hair.

20. As long as people follow the rule of rational choice, they will always make decisions from which they expect to gain more in benefits than they have to give up in costs; that is, they will make decisions from which their net marginal benefit (marginal benefit minus marginal cost) is positive. They will always be better off in this case. However, if people's expectations about benefits or costs are wrong, their decisions may unexpectedly make them worse off.

SECTION 1.6 INCENTIVES MATTER

21. Positive incentives are those that either increase benefits or reduce costs and thus tend to increase the level of an activity. Both of the following are examples of positive incentives: (b) a trip to Hawaii paid for by your parents or significant other for earning an A in your economics course; (d) a subsidy for installing solar panels on your house. Negative incentives either reduce benefits or increase costs, and thus tend to decrease the level of the related activity or behaviour. Both of the following are examples of negative incentives: (a) a fine for not cleaning up after your dog defecates in the park; (c) a higher tax on cigarettes and alcohol.

22. Singapore's tough drug-trafficking penalty would clearly impact the cost−benefit ratios of would-be smugglers. Lighter sentences would probably result in more drug smuggling because the overall cost of breaking the law would be reduced.

23. The Chinese government was attempting to promote population control. As the world's most populated country, China has historically struggled with controlling population growth in it attempts to manage economic growth and national standards of living. The sanctions and penalties associated with not following the one-child policy would be considered negative incentives designed to discourage couples from having more than one child. The rewards and honours associated with following the policy would be considered positive incentives designed to promote adherence to the policy.

SECTION 1.7 SPECIALIZATION AND TRADE

24. Denying trade possibilities also eliminates the possibility of specialization. In autarky, a country must produce everything it consumes. Scarce resources will be wasted producing goods with higher opportunity costs. Trading would allow the country to produce more with the same resources.

25. The opportunity cost to Fran of growing soybeans is the lost value because she can't grow corn. This opportunity cost is equal to \$1800 (3000 kg × \$0.60/kg). The opportunity cost of growing corn is the lost opportunity to grow and sell soybeans, which is equal to \$2250 (1500 kg × \$1.50/kg). Fran should specialize in soybeans, which is the crop with the lower opportunity cost. For each hectare of corn that Fran converts to soybeans, she will gain \$450.

26. a. Canada has a comparative advantage in wheat.
    b. Colombia has a comparative advantage in coffee.
    c. British Columbia has a comparative advantage in lumber.
    d. Alberta has a comparative advantage in oil.

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27. a. If the country or region with the lower opportunity cost produces the good, the opportunity cost of consuming that good is minimized.
    b. Trade allows people, regions, and countries to specialize in producing those goods in which they have the lowest opportunity cost, so reducing trade restrictions will encourage specialization, thereby increasing efficiency.

SECTION 1.8 THE THREE ECONOMIC QUESTIONS EVERY SOCIETY FACES

28. The three basic economic questions are: (1) What is to be produced? (2) How are these goods and services to be produced? (3) Who will get the goods and services? Scarcity requires that these questions be addressed in some way by every economy. Market economies answer these questions in a decentralized way through the interaction of millions of buyers and sellers. In command economies, decisions are made largely through planning boards. The manner in which an economic system answers these questions helps determine the allocation of limited resources.

29. No, Karl is wrong. Markets provide important signals, and the signal being sent in this situation is that Adam should look for some other way to support his ambitions, something that society values. Remember the function of consumer sovereignty in the marketplace. Clearly, consumers were not voting for Adam's art.

CHAPTER 1 APPENDIX
WORKING WITH GRAPHS

1. A. (−2, 2)
   B. (2, 1)
   C. (3, 2)
   D. (−1, −2)
   E. (2, –1)
   F. (−2, −1)

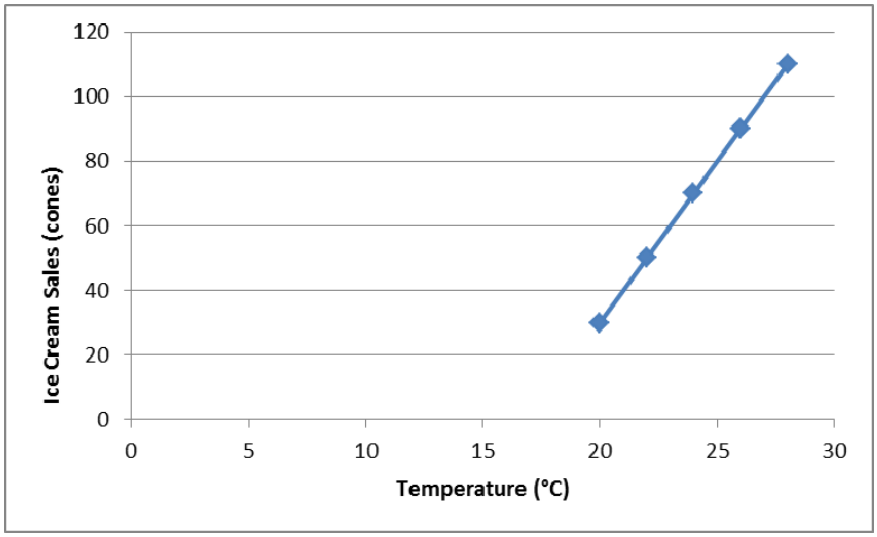
2. a. 8%
   b. 20%
   c. Two-door sedans
   d. All-electric

3. a. Semester 1
   b. Semesters 3 and 4
   c. Semester 2
   d. Total number of boys: 372; total number of girls: 366

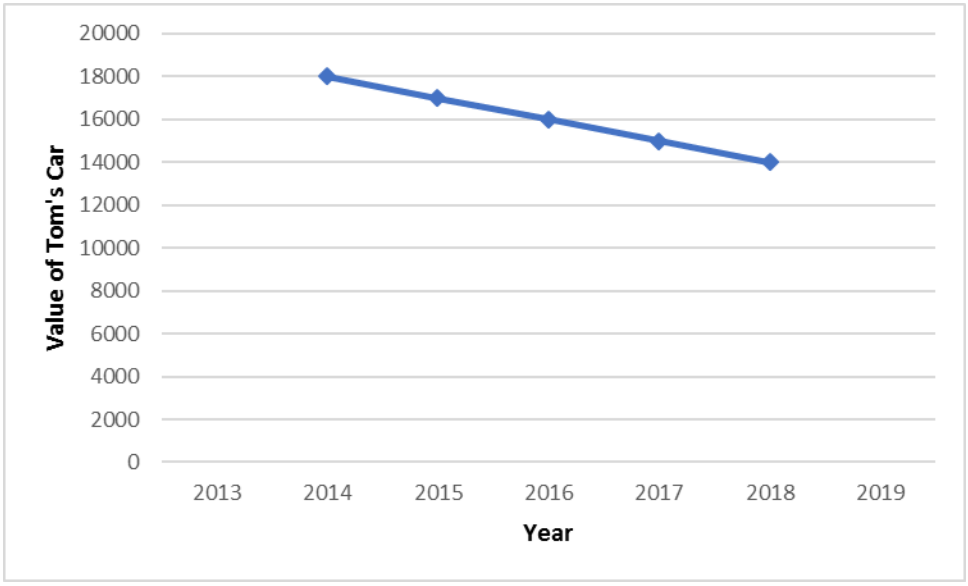
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4. **Graph 1: Upward sloping**



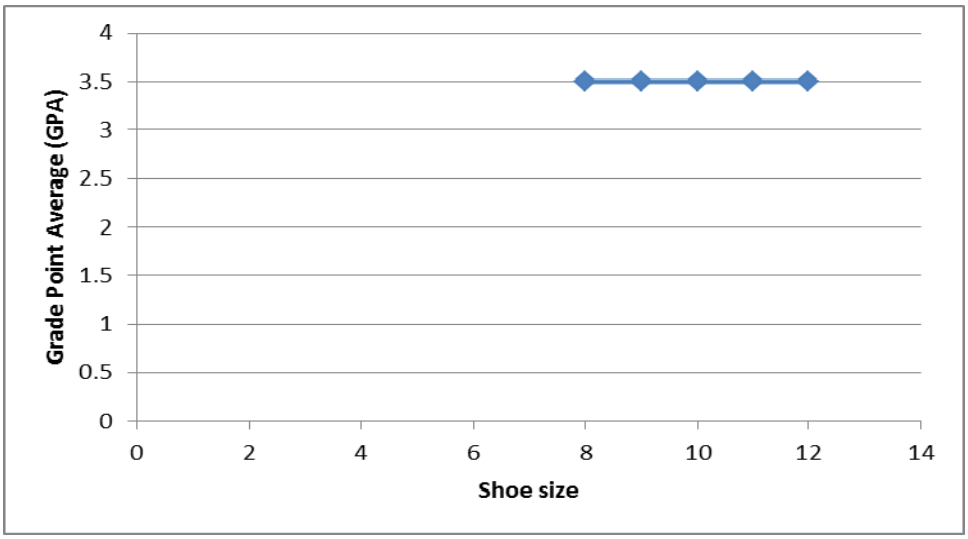
Graph 2: Downward sloping



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Graph 3: Unrelated



5. a. 2
   b. −3
   c. –0.5
   d. Undefined
   e. 0

6. a. 50%
   b. 5%
   c. 0.8%
   d. 5%

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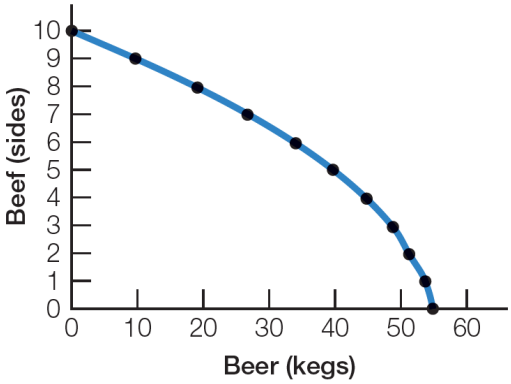
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FOR YOUR REVIEW
ANSWER KEY

CHAPTER 2
SCARCITY, TRADE-OFFS, AND PRODUCTION POSSIBILITIES

SECTION 2.1 THE PRODUCTION POSSIBILITIES CURVE

1. a.



   b. 1 side of beef; 6 kegs of beer; 9 kegs of beer
   c. 35 kegs of beer
   d. No; that combination is inside the production possibilities curve, which means more of one good could be produced without giving up any production of the other good.
   e. No; that combination is beyond the production possibilities curve and therefore unattainable.

2. a. A production possibilities curve, which applies to a specific period of time, is drawn assuming that resources and the level of technology are held constant.
   b. The opportunity cost of another pizza, when moving from point B to point C, is 4 units of robots. The opportunity cost of another pizza, when moving from point D to point E, is 8 units of robots.
   c. These combinations are exhibiting increasing opportunity cost—the more pizzas you have, the higher the opportunity cost of obtaining additional pizzas.

3. This is the law of increasing opportunity cost in action. As you planted more and more of your land in wheat, you would move into some of the less fertile land and, consequently, wheat yields on this additional land would fall. If you were to go so far as to plant the entire island with wheat, you would find that some of the less fertile land would yield virtually no extra wheat. It would, however, have been great for cattle grazing—a large loss. So the opportunity cost of using that marginal land for wheat rather than cattle grazing would be very high.

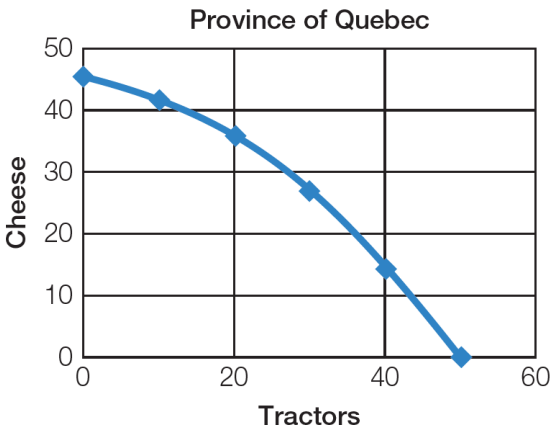
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SECTION 2.1 THE PRODUCTION POSSIBILITIES CURVE—AND—SECTION 2.2 ECONOMIC GROWTH AND THE PRODUCTION POSSIBILITIES CURVE

4. a. Double-digit unemployment would not affect the production possibilities curve itself. An economy experiencing double-digit unemployment would be operating at a point inside the production possibilities curve.
   b. The production possibilities curve shifts outward whenever the economy experiences economic growth.
   c. Assuming resources are being used efficiently, the economy moves from one point along the production possibilities curve to another in the direction of more food production (requiring a sacrifice of shelter).
   d. Assuming resources are being used efficiently, the economy moves from one point along the production possibilities curve to another in the direction of more shelter (requiring a sacrifice of food).

5. a.



b.

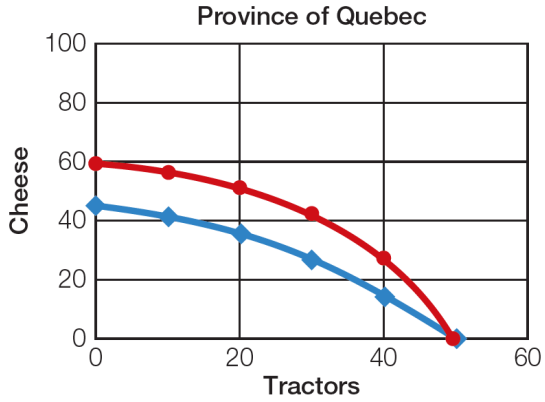
	A		B		C		D		E		F
		−3		−6		−9		−12		−15	
Cheese	45		42		36		27		15		0
Tractors	0		10		20		30		40		50
		+10		+10		+10		+10		+10	

As indicated in the table above, if the province of Quebec is to continually increase tractor production by 10 tractors it must give up increasing amounts of cheese—thus illustrating the law of increasing opportunity cost.

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c.

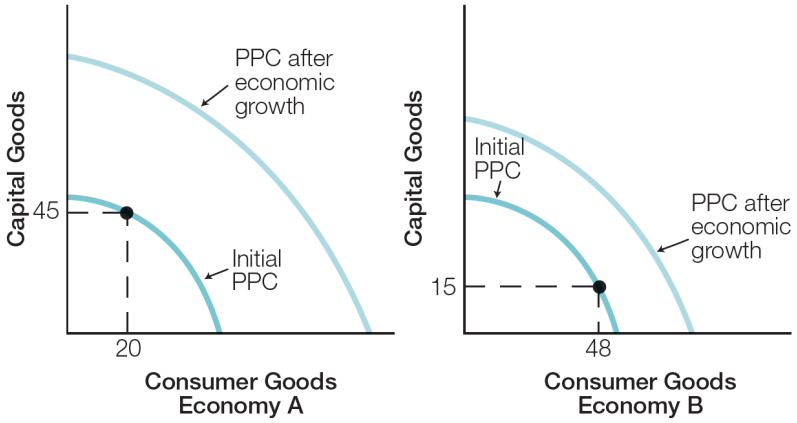


d. The alteration in production from production alternative B to alternative E represents an increase in capital goods and a decrease in consumption goods. As a result, the prediction would be that the province of Quebec would experience greater economic growth in the future.

6. a. Yes; the bowed-outward shape of the production possibilities curve indicates increasing opportunity costs.
   b. Zero; because point I is inside the production possibilities curve, moving from point I to point D means that the output of food can increase with no decrease in the output of shelter.
   c. 10 units of food
   d. All of the points on the production possibilities curve are efficient because at any of those points, more of one good could be produced only by sacrificing some output of the other good. However, the curve does not tell us which of those points is best from the perspective of society.
   e. Point N; additional resources or new technology (shifting the PPC outward).
   f. Point I; the economy must ensure that all resources are being utilized to their fullest extent—no wasted resources.

SECTION 2.2 ECONOMIC GROWTH AND THE PRODUCTION POSSIBILITIES CURVE

7. Investment in capital goods increases the future productive potential of an economy. Economy A will grow more rapidly, shifting the production possibilities curve outward to a greater extent over time, if it invests in a higher proportion of capital goods than does Economy B.



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8. The politician would be able to keep her promise if the economy was operating inside the production possibilities curve. It would then be possible to have more of both schools and prisons by better utilizing available resources. Alternatively, an advance in technology or an increase in available resources (perhaps due to immigration) would also make it possible to have more of both goods by shifting the production possibilities curve in an outward direction.

9. a. A country will fail to grow if its sacrificed consumption is spent in other countries.
   b. A country will fail to grow if it chooses not to sacrifice because it cares so much about current consumption.
   c. Growth will be limited if a country does not invest in human capital.
   d. A country will fail to grow if its sacrificed consumption is spent on goods other than capital goods.

10. People acquire human capital though education, which adds to the nation's ability to produce, just as is the case with additions to the physical capital stock.

SECTION 2.3 MARKET PRICES COORDINATE ECONOMIC ACTIVITY

11. The definition of a market focuses on the process of exchange not on the physical location where the exchange takes place. Therefore, even though online buyers and sellers are never actually in the same place, their behaviour still constitutes a market transaction due to the fact that goods and services are being exchanged.

12. Buyers determine the demand side of the market. Consumers demand goods and services in product markets and producers demand resources in factor markets. Alternatively, resource owners supply factors of production in factor markets and producers supply goods and services in product markets.

13. Options (a), (b), and (c) would cause increases in the relative value and price of potatoes. In option (d), the reduction in the prices of potato substitutes would make alternatives more attractive and reduce the relative value and price of potatoes.

14. a. Price of Jack Russell terriers rises
   b. Price of housing in Tampa rises
   c. Price of coffee rises
   d. Price of wheat rises
   e. Wages of Canadian doctors fall

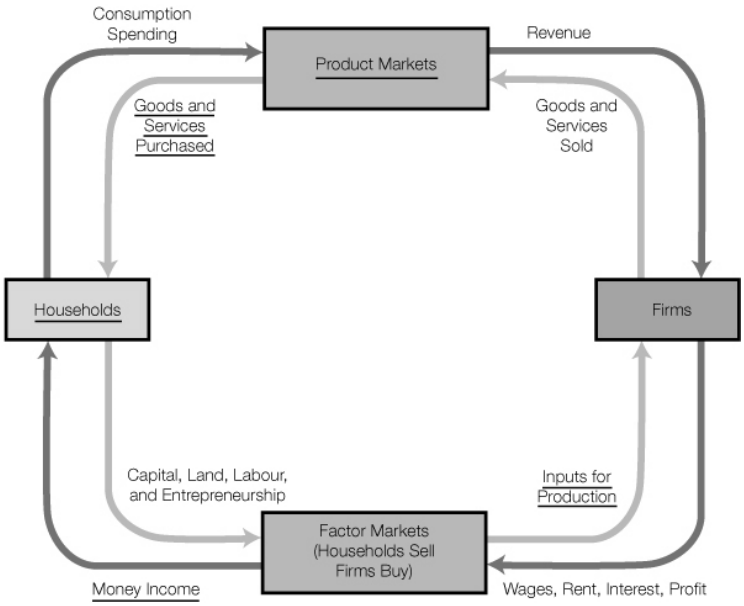
15. The market is global. Manufacturers sell to dealers throughout the world. Transportation costs are low relative to the costs of a laptop computer. Middlepersons make information about prices and quality easily available.

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SECTION 2.4 THE CIRCULAR FLOW MODEL

16.



17. a. Product market
    b. Factor market
    c. Product market
    d. Factor market.
    Furniture is a good purchased in the product market from firms. Labour is a resource that households sell to firms in the factor market. Restaurant food is a good purchased by consumers in the product market. Finally, Billy's entrepreneurial resource is paid a profit, which is the amount left over after all his other costs have been paid. This takes place in the factor market.

18. a. The events of Claire getting paid $800 as a rental agent and Markus getting paid $70 to teach a fitness class both occur in the factor market.
    b. The events of Claire spending $40 a week on her gym membership and Markus spending $200 on a rental car both occur in the product market.

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