

Froeb et al., Managerial Economics: A Problem-Solving Approach Instructor's Guide: Fifth Edition (5e)

Table of Contents

TABLE OF CONTENTS	1
HOW TO USE THE INSTRUCTOR'S GUIDE	2
GENERAL CONSIDERATIONS	2
MBA TEACHING TIPS	3
CHAPTER 1: WHAT THIS BOOK IS ABOUT	3
CHAPTER 2: THE ONE LESSON OF BUSINESS	8
CHAPTER 3: BENEFITS, COSTS, AND DECISIONS	ERROR! BOOKMARK NOT DEFINED.
CHAPTER 4: EXTENT (HOW MUCH) DECISIONS	ERROR! BOOKMARK NOT DEFINED.
CHAPTER 5: INVESTMENT DECISIONS: LOOK AHEAD AND REASON BACK	ERROR! BOOKMARK NOT DEFINED.
CHAPTER 6: SIMPLE PRICING	ERROR! BOOKMARK NOT DEFINED.
CHAPTER 7: ECONOMIES OF SCALE	ERROR! BOOKMARK NOT DEFINED.
CHAPTER 8: MARKET AND INDUSTRY CHANGES	ERROR! BOOKMARK NOT DEFINED.
CHAPTER 9: LONG-RUN EQUILIBRIUM	ERROR! BOOKMARK NOT DEFINED.
CHAPTER 10: STRATEGY: THE QUEST TO SLOW PROFIT EROSION	ERROR! BOOKMARK NOT DEFINED.
CHAPTER 11: DEMAND/SUPPLY ANALYSIS OF TRADE, BUBBLES, AND MARKET-MAKING	ERROR! BOOKMARK NOT DEFINED.
CHAPTER 12: MORE REALISTIC AND COMPLEX PRICING	ERROR! BOOKMARK NOT DEFINED.
CHAPTER 13: DIRECT PRICE DISCRIMINATION	ERROR! BOOKMARK NOT DEFINED.
CHAPTER 14: INDIRECT PRICE DISCRIMINATION	ERROR! BOOKMARK NOT DEFINED.
CHAPTER 15: GAME THEORY	ERROR! BOOKMARK NOT DEFINED.
CHAPTER 16: BARGAINING	ERROR! BOOKMARK NOT DEFINED.
CHAPTER 17: MAKING DECISIONS WITH UNCERTAINTY	ERROR! BOOKMARK NOT DEFINED.
CHAPTER 18: AUCTIONS	ERROR! BOOKMARK NOT DEFINED.
CHAPTER 19: ADVERSE SELECTION	ERROR! BOOKMARK NOT DEFINED.
CHAPTER 20: THE PROBLEM OF MORAL HAZARD	ERROR! BOOKMARK NOT DEFINED.

CHAPTER 21: GETTING EMPLOYEES TO WORK IN THE FIRM’S BEST INTEREST ... ERROR! BOOKMARK NOT DEFINED.

CHAPTER 22: GETTING DIVISIONS TO WORK IN THE BEST INTERESTS OF THE FIRM . ERROR! BOOKMARK NOT DEFINED.

CHAPTER 23: MANAGING VERTICAL RELATIONSHIPS..... ERROR! BOOKMARK NOT DEFINED.

24. YOU BE THE CONSULTANT ERROR! BOOKMARK NOT DEFINED.

How to Use the Instructor’s Guide

Click any page number in the table of contents to be directed to that page. For each chapter of the textbook, the Instructor’s Guide contains Main Points, Related Videos, an In-Class Problem, Additional Anecdotes, a Teaching Note, and Additional Blog Posts and Articles. These resources can be used during lesson planning to supplement the textbook material. Note that some of the anecdotes referenced in the Instructor’s Guide appear in the 5th edition textbook; they are labeled “(in 5th ed. text)”. The links and video lectures in this guide can also be found on <http://www.studentdashboard.net/>.

General Considerations

What I do to prep for class

Read the summary points of the chapter in the book. Choose four or five points that I want to illustrate with specific business problems during a 90-minute lecture, and write them down on a 3X5 card. When I get to class, I also write the points on the class whiteboard. I find that the simple act of writing an outline on the board keeps the class on track. I cross out each item, when I get through it.

Read the notes on specific chapters below to see which problems the students have already seen and to get ideas for which videos and problems I may use.

Read most recent blog posts on <http://www.ManagerialEcon.com>; (click on the chapter headings for up-to-date applications of the ideas in each chapter). When preparing lectures, I choose some recent blog posts and make problems out of them. I give the problems to students in class and then ask the students to solve the problems (usually 2-3 minutes), and then ask them to turn to their neighbors to “make sure they got the right answer.” I then debrief the problem myself.

Have a couple of video links to show students if class slows down. Be sure to debrief any video that you show in class, e.g., “why did we watch this video?” or “how does this relate to the ideas in the chapter.” What is obvious to you and me is not obvious to a lot of the students.

I don’t use slides, but there are two sets of slides available, co-author Mike Wards (University of Texas—Arlington) and a set based on the book. Supplementary material (slides, syllabi, practice exams) is available at Cengage.com and at <http://www2.owen.vanderbilt.edu/lukefroeb/textbook/4e>

Inverting the classroom

There is ancillary material available on [Coursemate](http://www.coursemate.com), particularly the Video lectures and interactive quizzes that give professors the option to “invert the classroom,” i.e., assign lectures as homework and

use class time to solve problems. If you haven't seen it, watch the [Kahn Academy TED Lecture](#) on how the East Palo Alto School district does this at the High School Level.

If you expect students to watch the videos and do the multiple-choice questions before the class, clearly communicate this, and design your lectures accordingly. When I do this, I watch the video lecture and ask questions like "What did you get out of the video lecture?"; "Can you think of another solution to the problem raised in the video?"; or "Is your solution better, why or why not?"

If you don't expect students to read the text or watch the videos, you can use the videos or text as a lesson plan. The videos are particularly useful for foreign students with weaker language skills.

MBA Teaching Tips

Be aware that successful teaching comes in many different forms, and that you have to develop a style that works for you. Here are some tips that I have found useful.

Build the course around the deliverables: Because they are so busy, it is difficult to motivate students to do work which is not tied to deliverables. So I design the course around the deliverables, and then figure out what I need to teach in order for students to successfully complete the deliverables.

Put the particular ahead of the general: I begin each topic with a real business puzzle that motivates the material for the students. Then I get to the general principles, using as-simple-as-I-can make-them models.

If students are not asking question, they are not engaged: and if they are not engaged, they are not learning. Sometimes, I will say more and more outrageous things, just to get students to respond. And once they do, the class always seems to flow better. If I get a question in class, I always ask another student to answer, as doing so keeps them engaged.

Slow down: the most common mistake that I make is to speed up in order to get through the material that I have on my slides or in my teaching outline for the day. This is folly. Students have enough trouble absorbing material without you trying to speed through it. Instead, slow down. Students will absorb very little from fast teaching.

Cold call: I find that this keeps students engaged in class (fear?), and I don't accept "I don't know" for an answer. I stand there until the student comes up with an answer, and then turn to the student sitting next to him, and ask what they think of the previous answer and why. I do make exceptions for foreign students who have obvious difficulty with the language.

Anticipate lethargy: when I feel that the class has slowed down, I show a video or make students do in-class problems to switch things up. However, if you do an exercise, or show a video, always debrief it. What seems obvious to you is not to the students.

Never answer a student's question directly: instead, get another student to answer it.

Never add material to the syllabus: It is OK to remove assignments from the syllabus, but never add, or shift assignments around.

Chapter 1: What This Book is About

Main Points

- Problem solving requires two steps: First, figure out why mistakes are being made, then figure out how to make them stop.
- The **rational-actor paradigm** assumes that people act rationally, optimally, and self-interestedly. To change behavior, you have to change incentives.
- Good incentives are created by rewarding good performance or punishing bad performance.
- A well-designed organization is one in which employee incentives are aligned with organizational goals, meaning employees have enough information to make good decisions, and the incentive to do so.
- It follows that you can analyze problems by asking three questions: (1) Who is making the bad decision?; (2) Does the decision maker have enough information to make a good decision?; and (3) the incentive to do so?
- Answers to these questions will suggest solutions centered on (1) letting someone else make the decision, someone with better information or incentives; (2) giving the decision maker more information; or (3) changing the decision maker's incentives.

Related Videos

- [Video Lecture](#): TVA barges sit at docks for two weeks
- [How did property rights save China, the Pilgrims, and Vietnam?](#) 9-minute video describing the advantages of private property rights in contrast to collective property rights
- [Friedman v. Donohue on Greed](#) 2-minute video explaining the benefits of a free enterprise system. Capitalism and free trade are crucial foundations for freedom from poverty.
- [Stossel on Sweatshops](#), 6-minute video undermining the myth that “sweatshops” exploit individuals in impoverished countries
- John Stossel's Video “GREED,” by ABC News. Provocative 45-minute video that covers several topics and gets students thinking about how people respond to incentives and how markets turn self-interested behavior to the benefit of consumers. Make sure to get the OLD “greed”—the NEW version has been sanitized and is not nearly as hard hitting. [e-mail me if you have trouble finding this, luke.froeb@owen.vanderbilt.edu]

Additional Anecdotes: Sears Automotive and Kidder-Peabody

Sears Automotive: [Sears Auto recommends unnecessary repairs](#)

In 1992 charges were brought against Sears whose mechanics were recommending [unnecessary auto repairs](#). The problem was traced to the incentive system used by Sears (and others in the industry): “[the] use of quotas, commissions, or similar compensation may provide incentives for sales personnel to sell unnecessary auto repair services in order to meet quotas or receive larger commissions.”

Sears tried to fix the problem by re-organizing into two divisions, one responsible for recommending repairs; and the other responsible for doing them. Rather than solving the problem, however, the two divisions got together and began colluding. In exchange for recommending unnecessary repairs, the service division paid the recommending division for recommending them. Sears finally adopted flat pay for the mechanics, which led to shirking.

I used this example in [Vanderbilt's MMHC class \(syllabus\)](#) to illustrate the difficulties of aligning the incentives of providers with the goals of payers. President Obama tried to make the same point when he accused [physicians of performing unnecessary tonsillectomies](#). However, as the Sears example suggests, *there are no "fixes" to the problem, only tradeoffs:*

Incentives matter, yet maybe the truth is that medicine is a highly complex science in which the evidence changes rapidly and constantly. That's one reason tonsillectomies are so much rarer now than they were in the 1970s and 1980s—but still better for some patients over others. As the American Academy of Otolaryngology put it in a press release responding to Mr. Obama's commentary, clinical guidelines suggest that "In many cases, tonsillectomy may be a more effective treatment, and less costly, than prolonged or repeated treatments for an infected throat."

Mr. Obama seems to think that such judgments are easy. "If there's a blue pill and a red pill and the blue pill is half the price of the red pill and works just as well," he asked, "why not pay half price for the thing that's going to make you well?" But usually the red and blue treatments are available—as well as the green, yellow, etc.—because of the variability of disease, human biology and patient preference. The really hard cases, especially when government is paying for health care, are those for which there's only a red pill and it happens to be very expensive.

Kidder Peabody: [trader "games" his incentive pay](#)

In 1992 Joseph Jett became a star bond trader for Kidder-Peabody, earning a two-million-dollar bonus. As his monthly profits grew, he was allowed to risk more and more capital in his trading portfolio, and was eventually promoted to head of the Government Trading Desk. By the end of 1993, Jett had been promoted to managing director. He also received the "Chairman's Award" for outstanding performance, in addition to a \$9 million year-end bonus.

Joseph Jett traded "strips," which involved separating the interest payments from the principal on a government bond. He specialized in putting interest payments back together with the stripped bonds, thus reconstructing original bond. This activity earns profits by taking advantage of yield differences between zero-coupon bonds (no interest payments) and interest-bearing bonds.

However, at Kidder-Peabody, this activity seemed to earn profits—even in the absence of any yield differences. The antiquated information system at Kidder-Peabody tracked zero-coupon bonds by price instead of yield, which overstated their value once they entered the system. The information system rewarded Jett contemporaneously for sales of five-day forward contracts on reconstructed bonds. This allowed Jett to realize contemporaneous profits that would disappear in five days, when the computer recorded the future reconstruction. However, by rolling the contracts forward, Jett was able to keep these profits on the books. In order to make this work, Jett had to continuously increase the size of his portfolio.

Early in 1994, the information system at Kidder began having trouble keeping up with Jett's trading activity. From 1992-1994, Jett had traded about \$1.7 trillion in government securities, about half of all outstanding government debt. When the source of the profits was uncovered, Kidder liquidated Jett's positions, and the company was sold to Paine-Webber for under-performing the market.

Joseph Jett was fired for refusing to cooperate with the resulting internal investigation but was cleared of criminal fraud charges in 1996. Kidder's civil suit to collect \$9 million from Jett was rejected by the NASD (National Association of Securities Dealers). He was fined by an SEC administrative judge but was allowed to keep \$3.7 million in compensation earned while at Kidder.

Jett's boss, Edward Cerullo, was forced to resign in 1994. The Securities and Exchange Commission charged him with failing to supervise Jett's trading activities. He was suspended from working in the industry for one year, but walked away with \$9 million in severance pay and deferred compensation.

Using our problem solving paradigm:

1. Jett putting interest payments back together with the stripped bonds, thus reconstructing original bond. This was a bad decision because it did not earn economic profit.
2. Jett had the information necessary to make a good decision.
3. However, he lacked the incentive to do so because his performance metric incorrectly measured the profitability of what he was trading activity

Two solutions immediately suggest themselves:

1. Letting someone else oversee the decision, but Jett's boss benefitted from his activity, so it would have to be someone else.
2. Change the faulty performance evaluation metric.

Teaching Note

I open with a business problem, like the over-bidding in the introduction, the Kidder-Peabody anecdote, or any of the anecdotes in the concluding chapter titled "You Be the Consultant," and then ask the students to assume that they are a consultant brought in to the company to figure out what is wrong. Play 20 questions, and make them ask questions that have "yes" or "no" answers until they figure out what is wrong. Students will invariably use the rational actor paradigm to do this. Point this out to them. Tell them that this class is trying to show them how to use this paradigm more formally.

At the beginning of each of my lectures, I reinforce their problem solving skills by asking them to solve a specific problem. The trick is to dribble out the information, bit by bit, to engage the students and keep them guessing what the problem is.

Note that some students will try to define the problem as the lack of their particular solution. This kind of thinking may cause them to miss the best solution by locking them into a particular solution. Warn students against this type of identification. For example, if they define a problem as "the lack of centralized purchasing," then the solution will be "centralized purchasing", regardless of whether that is the best option. Instead, students should define the problem as "high acquisition cost," and then examine "centralized purchasing" versus "decentralized purchasing" (or some other alternative) as potential solutions to the problem.

I then formally introduce the rational actor paradigm and show how it can be used to both identify why problems occur and what can be done to change behavior. I tell them that the key step in solving problems is to bring it down to an individual decision level. First, find out who made a bad decision, then determine why. Under the rational actor paradigm there are only two reasons for making mistakes: not enough information or bad incentives. Find out which it is. The bottom line is that problems can be identified by asking three questions:

1. Who made the bad decision?
2. Did they have enough information to make a good decision?
3. Did they have the incentive to make a good decision?

I then tell them that incentives have two pieces: a performance evaluation metric and a way to reward good performance, or punish bad performance. The Brickley, Smith, and Zimmerman article (below) is a good reference for this. Various solutions to the problem will likewise center on:

1. Changing decision rights (letting someone else make the decision);
2. Changing information flows; or
3. Changing incentives
 - i. Performance evaluation
 - ii. Compensation linking performance to rewards.

I tell them that the “goal” is to align the incentives of employees with the goals of the organization. After giving students this paradigm, I then ask them to fix the problem. Solicit suggestions, and ask other students what they like or don’t like about the various proposed solutions. The message is that there are only tradeoffs and no universal solutions, i.e., the answer to every question is “it depends.” The point of the class is to teach your students to recognize and evaluate the tradeoffs.

If you want to focus on information rather than incentives, use the Sears automotive example in the “additional anecdote” above ([What do tonsillectomies have in common with auto repair?](#)). This is a particularly good example for teaching the lesson, “there are no solutions, only tradeoffs.” None of the three solutions is very good: (1) If you leave the decision making with the mechanics, you have to make sure they don’t recommend needless repairs; (2) if you change their incentives to flat salary, you can expect shirking; and (3) giving the decision making to someone else results in costly duplication. Be sure to draw the analogy to the current health care debate. It will shake your students up when they realize the dreary choices in front of them. I like the solution (4) of gather more information, through “secret shoppers” who bring perfectly good cars to the garages to see if the mechanics recommend costly repairs.

In-class Problem

The following question is good for motivating problem solving. Tell students to put themselves in the role of the newly hired manager. Ask them what the problem is; and then how to solve it.

Goal Alignment at a Small Manufacturing Concern

The owners of a small manufacturing concern have hired a manager to run the company with the expectation that he will buy the company after five years. Compensation of the new vice president is a flat salary plus 75% of first \$150,000 of profit, and then 10% of profit over \$150,000. Purchase price for the company is set as 4½ times earnings (profit), computed as average annual profitability over the next five years. Does this contract align the incentives of the new vice president with the goals of the owners?

Answer:

No. Both the purchase price and the profit sharing create perverse incentives. The VP keeps \$0.75 of each dollar earned up to \$150,000, but only \$0.10 of each dollar earned after \$150K. Since earning more requires more effort (increasing marginal effort), the VP has little incentive to earn more than \$150,000. And every dollar the VP earns raises the price that he will eventually pay for the company by \$4.50, effectively penalizing him for increasing company profitability.

Additional Blog Posts and Articles

- [ManagerialEcon.com \(Chapter 1\)](#)
- James Brickley, Clifford Smith, Jerold Zimmerman, “The Economics of Organizations,” *Journal of Financial Economics*, Vol. 8:2 (Summer, 1995) pp. 19-31.

This article provides the basis for our study of behavior within organizations. The authors present a methodology for diagnosing and repairing problems within an organization. Their take on the rational actor paradigm is slightly different than mine: They would diagnose problems by asking three questions:

- i. Who is making the bad decision?;
- ii. How are they evaluated?; and
- iii. How are they compensated?

Answers to these questions will suggest solutions to the problem centered on:

- i. Re-assigning decision rights;
- ii. Changing evaluation schemes; and/or
- iii. Changing compensation schemes.

This approach is very similar to mine. But I group evaluation and compensation schemes into “incentives” and ask explicitly about information.

Chapter 2: The One Lesson of Business

Main Points

- Voluntary transactions create wealth by moving assets from lower- to higher-valued uses.
- Anything that impedes the movement of assets to higher-valued uses, like taxes, subsidies, or price controls, destroys wealth.
- Inefficiency means that each asset is employed in its highest-valued use. Each inefficiency implies a money-making opportunity.
- The art of business consists of finding an asset in lower-valued use and devising ways to profitably move it to higher-valued one.
- A company can be thought of as a series of transactions. A well-designed organization rewards employees who identify and consummate profitable transactions or who stop unprofitable ones.

Related Videos

- [Video Lecture](#): House buying moves assets to higher valued uses; Regulation Q is a price control and Euro dollars were invented to circumvent the control.
- [Stossel, Greedy Seniors](#) Seniors consuming healthcare at alarming rate due to Medicare
- Stossel, [On Vanderbilt's Greed](#); an economic perspective on the wealthy
- Stossel, [Poverty](#) 7 minute video questioning whether foreign aid can cure poverty
- Stossel, [Outsourcing](#) 6 minute video defending outsourcing
- Stossel, 7 minute video explains that the best way to save [endangered species](#) is to eat them
- 4 minute Wall Street [Greed is God](#) speech on how takeovers create value
- Would you [give up the Internet](#) for 1 million dollars? Shows the gap between “worth” and “cost”

In-class Problem

Ask a student for an example of a price control, tax, or subsidy, and then ask them which assets end up in lower valued uses. Ask someone else if they can figure out a way to make money from the inefficiency? If you get no volunteers, ask someone to analyze the effects of the minimum wage. Do this without supply and demand; instead talk about the transactions that are deterred by the regulation (employers willing to hire at a wage below the minimum wage and those willing to work at below the minimum wage

are deterred from transacting). Ask if there is a way to make money by consummating these transactions (outsourcing, start a temp agency, etc.).

Additional Anecdote: Zimbabwe deters transactions

Discuss the following article:

“Mugabe should heed the warnings of Hayek,” by Marian Tupy, *Financial Times*, Copyright 2005 The Financial Times Limited, Published: July 27 2005

Available online at <http://www.ft.com/cms/s/939cb766-fe3c-11d9-a289-00000e2511c8.html>

The article summarizes the negative economic consequences associated with the expropriation of private property of (white) commercial farmers in Zimbabwe in 2000.

Teaching Note

I often begin with a brief overview of “where have we been, where are we going, and how are we going to get there?” Students like this review, as it puts what we are doing into perspective. In this case, I remind them that in the first chapter we showed students how to align the incentives of individuals with the goals of an organization (give them enough information to make good decisions and the incentive to do so); in this chapter we show them how to identify profitable decisions.

We start out talking about how the wealth creating mechanism of capitalism is the movement of assets to higher valued uses, and that taxes, price controls, and subsidies slow down the movement of assets, or encourage assets to move in the wrong direction. I then remind them that decision making in firms can either move assets to higher valued uses, or not, and that the point of this lecture is to show them how to make profitable decisions by learning how to compute the benefits and costs of a decision.

The main point of this chapter is to introduce the metaphor that ties all the business problems together: Identifying assets in lower valued uses, and then figuring out how to profitably move them to higher valued uses. Get them thinking about how to use this metaphor to help identify problems (which assets are in lower valued uses) as well as how to solve them (how do we profitably move them to a higher valued use?).

I open this class by asking students how wealth is created (by moving assets to higher valued uses). If the student answers correctly, ask the respondent what he or she means by “value” (ability to pay). If you get another correct answer, confront the student by asking “do you mean that a poor student, growing up in poverty, does NOT value education?” (Yes, that is correct.). With executive MBA’s, you might want to ask students how they, or their company, create wealth. Relate it back to moving assets to higher valued uses.

The “one lesson of business” is to find assets in lower valued uses and find a way to profitably move them to a higher valued use. Alternatively, the lesson can be rephrased as seeking out unconsummated wealth creating transactions and finding ways to profitably consummate them. This theme will tie all the book chapters together.

Many students have taken a microeconomics class, so I then use a “compare and contrast” approach to explain how micro differs from managerial. Several points to reinforce:

- Economists are concerned with public policy; MBA’s with making money.

- Economics tools help you spot assets in lower valued uses and to design public policy to facilitate the movement of assets to higher valued uses. MBA's use economics to spot assets in lower valued uses so they can buy them, and profitably move them to a higher valued use.
- Economists see inefficiency as something to be eliminated; MBA's as something to be exploited. Elimination of inefficiency is a by-product of their effort to exploit it.

I illustrate the difference between micro and managerial by looking at the effects of three policies on marginal transactions: price controls (prevent some voluntary wealth creating transactions); taxes (deter movement of some assets to higher valued uses), and subsidies (move some assets to lower valued uses). Then, after you have identified assets in lower valued uses, ask what an economist would do (change policy) and what an MBA would do (buy the asset, and sell it to someone who valued it more highly.) I focus only on the “marginal” transactions that are affected by the policies.

You may also want to talk about the role of government in facilitating wealth-creating transactions. Compare and contrast countries like Zimbabwe with those of Hong Kong or the US (PJ O'Rourke's book, *Eat the Rich*, is great on this account). The paradox is that there is more wealth-creating potential in countries like these because the government's rules have put assets in lower valued uses, but the same government rules make it difficult to move them to higher valued uses.

I close the lecture by noting that organizations have trouble creating wealth for analogous reasons: internal taxes, subsidies, or price controls that impede the movement of assets to higher valued uses within the organization. Use an example, (My favorite is Phycor, a physician management company that purchased physician practices with stock. This practice reduced the incentive of physicians to work hard, essentially by turning owner/managers into stockholders of a larger entity), or refer back to the two stories in the first chapter.

Additional Blog Posts and Articles

- [ManagerialEcon.com \(Chapter 2\)](#)
- Steven Landsburg, “The Iowa Car Crop,” *The Armchair Economist*, (New York: The Free Press, 1993) pp. 197-202.
This reading illustrates the idea that “voluntary transactions create wealth” by making the case for international trade.
- Steven Landsburg, “Why Taxes are Bad: The Logic of Efficiency,” *The Armchair Economist*, (New York: The Free Press, 1993) pp. 60-72.
This reading illustrates the concept of efficiency and shows how taxes cause inefficiency.
- Frédéric Bastiat, “[Candlemakers’ Petition.](#)” (<http://bastiat.org/en/petition.html>)
One of the most famous documents in the history of free-trade literature is [Bastiat’s](#) famous parody, in which he imagined the makers of candles and street lamps petitioning the French Chamber of Deputies for protection from a most dastardly foreign competitor, the sun.
- Milton Friedman, “The Social Responsibility of Business is to Increase its Profits,” *The New York Times Magazine*, (Sept. 13, 1970).
A clear articulation of what my colleagues in the Divinity School refer to as the “Andrew Carnegie Dichotomy,” a company should make as much money for its shareholders as possible in order to let them do “good” with the money, should they choose.
- Related Blog Posts:
 - [Monkey Parking](#)
 - [McDonalds in Italy](#)
 - [US Safety Net has Become Hammock](#)

- [Book Review: Ethics and Public Policy](#)
- [What's going on in the EU?](#)

**Managerial Economics:
A Problem-Solving Approach
5th Edition**

End-of-Chapter Individual Problems - Key

Table of Contents

Chapter 1.....	7
1-1 Goal Alignment at a Small Manufacturing Concern	7
1-2 Goal Alignment at a Small Manufacturing Concern (cont.)	7
1-3 Goal Alignment at a Small Manufacturing Concern (cont.)	8
1-4 Goal Alignment at New York City schools	8
1-5 Goal Alignment between Airlines and Flight Crews	8
1-6 Goal Alignment between Hospitals and the British Government	8
Chapter 2.....	9
2-1 Airline Delays	9
2-2 Selling Used Cars.....	9
2-3 Flood Insurance	9
2-4 France’s Labor Unions Force Early Closing Times.....	9
2-5 Kraft and Cadbury.....	10
2-6 Price of Breast Reconstruction Versus Breast Augmentation	10
Chapter 3.....	Error! Bookmark not defined.
3-1 Concert Opportunity Cost.....	Error! Bookmark not defined.
3-2 Concert Opportunity Cost 2.....	Error! Bookmark not defined.
3-3 Housing Bubble.....	Error! Bookmark not defined.
3-4 Opportunity Cost	Error! Bookmark not defined.
3-5 Starbucks.....	Error! Bookmark not defined.
3-6 Dropping University Courses	Error! Bookmark not defined.
3-7 Business Costs.....	Error! Bookmark not defined.
Chapter 4.....	Error! Bookmark not defined.
4-1 Extent Versus Discrete Problems.....	Error! Bookmark not defined.
4-2 Game Day Shuttle Service.....	Error! Bookmark not defined.
4-3 Paid for Grades	Error! Bookmark not defined.
4-4 Supplier Bids	Error! Bookmark not defined.
4-5 Processing Insurance Claims.....	Error! Bookmark not defined.
4-6 Copier Company	Error! Bookmark not defined.
Chapter 5.....	Error! Bookmark not defined.
5-1 George’s T-Shirt Shop	Error! Bookmark not defined.
5-2 Net Present Value	Error! Bookmark not defined.

5-3 Doctor's Human Capital	Error! Bookmark not defined.
5-4 Solar Panel Installation	Error! Bookmark not defined.
5-5 Toy Trucks	Error! Bookmark not defined.
5-6 Running a Hotel During a Recession.....	Error! Bookmark not defined.
5-7 Short Run versus Long Run	Error! Bookmark not defined.
Chapter 6.....	Error! Bookmark not defined.
6-1 Elasticity of T-Shirt Sales	Error! Bookmark not defined.
6-2 Increasing Movie Ticket Prices	Error! Bookmark not defined.
6-3 Promotional Pricing	Error! Bookmark not defined.
6-4 Bar Nuts	Error! Bookmark not defined.
Chapter 7.....	Error! Bookmark not defined.
7-1 Scale and Scope	Error! Bookmark not defined.
7-2 Brand Extensions	Error! Bookmark not defined.
7-3 Rangers' T-Shirts	Error! Bookmark not defined.
7-4 Average and Marginal Costs.....	Error! Bookmark not defined.
7-5 Learning Curves	Error! Bookmark not defined.
7-6 Multiconcept Restaurants Are a Growing Trend.....	Error! Bookmark not defined.
Chapter 8.....	Error! Bookmark not defined.
8-1 Widget Market.....	Error! Bookmark not defined.
8-2 Cotton Prices.....	Error! Bookmark not defined.
8-3 Hand Sanitizer	Error! Bookmark not defined.
8-4 Chocolate Candy Bars Market	Error! Bookmark not defined.
8-5 Demand Shifts.....	Error! Bookmark not defined.
8-6 Valentine's Day	Error! Bookmark not defined.
Chapter 9.....	Error! Bookmark not defined.
9-1 Faculty Housing Benefits	Error! Bookmark not defined.
9-2 Snacks, Beer, and Marijuana	Error! Bookmark not defined.
9-3 Entry and Elasticity	Error! Bookmark not defined.
9-4 Competitive Industries	Error! Bookmark not defined.
9-5 Economic Profit.....	Error! Bookmark not defined.
9-6 Economics Versus Business	Error! Bookmark not defined.
Chapter 10.....	Error! Bookmark not defined.
10-1 High Rivalry	Error! Bookmark not defined.

10-2 Increasing Customer Value	Error! Bookmark not defined.
10-3 Intangible Resources	Error! Bookmark not defined.
10-4 Five Forces and the Airline Industry	Error! Bookmark not defined.
10-5 Smartphone Market	Error! Bookmark not defined.
10-6 Salons and Teeth Whitening.....	Error! Bookmark not defined.
Chapter 11.....	Error! Bookmark not defined.
11-1 The Carry Trade	Error! Bookmark not defined.
11-2 Brexit Fears	Error! Bookmark not defined.
11-3 Effects of the Pound Devaluation on Tourism and Bank Profits	Error! Bookmark not defined.
11-4 The Effects of a Pound Depreciation on Whirlpool	Error! Bookmark not defined.
11-5 Domestic Content	Error! Bookmark not defined.
11-6 Dollar Devaluation	Error! Bookmark not defined.
11-7 Effect of Expectations on the Exchange Rate.....	Error! Bookmark not defined.
Chapter 12.....	Error! Bookmark not defined.
12-1 Parking Lot Optimization	Error! Bookmark not defined.
12-2 Parking at Cowboys Stadium	Error! Bookmark not defined.
12-3 Product Store Locations.....	Error! Bookmark not defined.
12-4 Macintosh Versus iPhone	Error! Bookmark not defined.
12-5 Concert Prices	Error! Bookmark not defined.
Concert prices have increased coincidentally with illegal downloading of music off the Internet. Why?	Error! Bookmark not defined.
12-6 Radio Stations and Rock Concerts	Error! Bookmark not defined.
Chapter (13)-14.....	Error! Bookmark not defined.
14-1 Barbie Dolls and Accessories	Error! Bookmark not defined.
14-2 German Brothels.....	Error! Bookmark not defined.
14-3 Selling Salsa.....	Error! Bookmark not defined.
14-4 Microwave Ovens	Error! Bookmark not defined.
14-5 Music Pricing.....	Error! Bookmark not defined.
14-6 Bundling.....	Error! Bookmark not defined.
Chapter 15.....	Error! Bookmark not defined.
15-1 To Vote or Not to Vote	Error! Bookmark not defined.
15-2 To Vote or Not to Vote Part II.....	Error! Bookmark not defined.

15-3 Compatibility.....	Error! Bookmark not defined.
15-4 Salary Negotiation	Error! Bookmark not defined.
<i>Outcome = Low salary offer and employee accepts</i>	Error! Bookmark not defined.
15-5 Renegotiating Employment Contracts.....	Error! Bookmark not defined.
15-6 Entry Game with Withdrawal	Error! Bookmark not defined.
Chapter 16.....	Error! Bookmark not defined.
16-1 Newspaper Bargaining.....	Error! Bookmark not defined.
16-2 Airline Merger.....	Error! Bookmark not defined.
16-3 House Closing.....	Error! Bookmark not defined.
16-4 A City and Its Unions.....	Error! Bookmark not defined.
16-5 Entering International Markets	Error! Bookmark not defined.
16-6 PBMs	Error! Bookmark not defined.
Chapter 17.....	Error! Bookmark not defined.
17-1 Global Expansion	Error! Bookmark not defined.
17-2 Game Show Uncertainty.....	Error! Bookmark not defined.
17-3 Ad Agencies.....	Error! Bookmark not defined.
17-4 Disposing of Used Assets	Error! Bookmark not defined.
17-5 Saint Petersburg Gambles	Error! Bookmark not defined.
17-6 Hiring.....	Error! Bookmark not defined.
Chapter 18.....	Error! Bookmark not defined.
18-1 Effects of Collusion	Error! Bookmark not defined.
18-2 Reserve Prices.....	Error! Bookmark not defined.
18-3 Reserve Prices II.....	Error! Bookmark not defined.
18-4 Asset Auctions in Sweden.....	Error! Bookmark not defined.
18-5 Art Auctions	Error! Bookmark not defined.
18-6 Contractor Bidding.....	Error! Bookmark not defined.
Chapter 19.....	Error! Bookmark not defined.
19-1 Leasing Residuals	Error! Bookmark not defined.
19-2 College Degrees Required for Police Officers.....	Error! Bookmark not defined.
19-3 Bicycle Insurance and Information Asymmetry	Error! Bookmark not defined.
19-4 Job Auction	Error! Bookmark not defined.
19-5 “Soft Selling” and Adverse Selection	Error! Bookmark not defined.
19-6 Hiring Employees	Error! Bookmark not defined.

Chapter 20.....	Error! Bookmark not defined.
20-1 Extended Warranties	Error! Bookmark not defined.
20-2 Business Loan.....	Error! Bookmark not defined.
20-3 Locator Beacons for Lost Hikers	Error! Bookmark not defined.
20-4 Auto Insurance.....	Error! Bookmark not defined.
20-5 BPO Services	Error! Bookmark not defined.
20-6 Frequent Flyers	Error! Bookmark not defined.
Chapter 21.....	Error! Bookmark not defined.
21-1 Real Estate Agents	Error! Bookmark not defined.
21-2 Airline Departures.....	Error! Bookmark not defined.
21-3 Incentive Conflicts	Error! Bookmark not defined.
Which of the following are characteristic of principal-agent conflicts that often exist in a firm?	Error! Bookmark not defined.
21-4 Public School Principals	Error! Bookmark not defined.
21-5 Venture Capital.....	Error! Bookmark not defined.
21-6 Meeting Milestones.....	Error! Bookmark not defined.
Chapter 22.....	Error! Bookmark not defined.
22-1 Transfer Pricing.....	Error! Bookmark not defined.
22-2 Transfer Prices Set by Headquarters	Error! Bookmark not defined.
22-3 Chargebacks.....	Error! Bookmark not defined.
22-4 Divisional Profit Measure	Error! Bookmark not defined.
22-5 Furniture Forecasting	Error! Bookmark not defined.
22-6 Jet Turbine Design	Error! Bookmark not defined.
Chapter 23.....	Error! Bookmark not defined.
23-1 Local Phone Companies.....	Error! Bookmark not defined.
23-2 Integration of Physician Groups and Testing Services	Error! Bookmark not defined.
23-3 Online Cosmetics	Error! Bookmark not defined.
23-4 Wedding Dresses	Error! Bookmark not defined.
23-5 Herbicide Integration.....	Error! Bookmark not defined.
23-6 Loyalty Payments.....	Error! Bookmark not defined.

Chapter 1

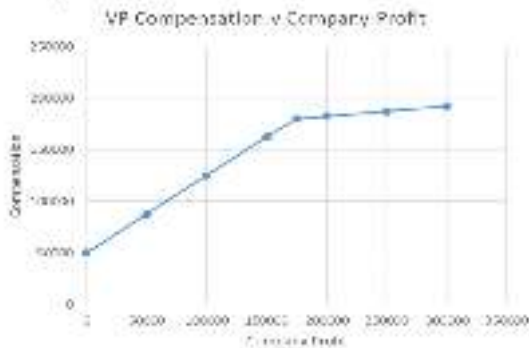
Short Answer Key:

1-1 Goal Alignment at a Small Manufacturing Concern

The owners of a small manufacturing concern have hired a manager to run the company with the expectation that he will buy the company after five years. Compensation of the new Vice President is a flat salary plus 75% of the first \$150,000 profit, then 10% of profit over \$150,000. Purchase price for the company is set at 4.5 times earnings (profit), computed as average annual profitability over the next five years.

a. Plot the annual compensation of the vice president as a function of annual profit.

Assume for now the VP has a base salary of 50,000. If so, when $P \leq \$150,000$, his compensation can be determined by the equation $C = 50,000 + 0.75(P)$. When $P \geq 150,000$, compensation is determined by the equation $C = (50,000 + 0.75(150,000)) + 0.1P$, which means $C = 162,500 + 0.1P$. The plot for compensation can be seen below.



Company Profit	VP Compensation
0	50000
50000	87500
100000	125000
150000	162500
175000	180000
200000	182500
250000	187500
300000	192500

b. Assume the company will be worth \$10million in five years. Plot the profit of buying the company as a function of annual profit.

The purchase price will be 4.5x earnings, calculated as 4.5x average annual profitability. Therefore, the profitability of the purchase can be seen by the equation $P_{purchase} = 10,000,000 - 4.5(P_{annual})$. The plot of this equation can be seen below.



Annual Profit	Purchase Profit
125000	9437500
250000	8875000
500000	7750000
750000	6625000
1000000	5500000
1250000	4375000
1500000	3250000
2000000	1000000

1-2 Goal Alignment at a Small Manufacturing Concern (cont.)

Does this contract align the incentives of the new vice president with the profitability goals of the owners?

No. Both the purchase price and the profit sharing create perverse incentives. The VP keeps \$0.75 of each dollar earned up to \$150,000, but only \$0.10 of each dollar earned after \$150K. Since earning more requires more effort (increasing marginal effort), he has little incentive to earn more than \$150,000. And every dollar the VP earns raises the price that he will eventually pay for the company by \$4.50, effectively penalizing him for increasing company profitability.

1-3 Goal Alignment at a Small Manufacturing Concern (cont.)

Re-design the contract to better align the incentives of the new vice president with the profitability goals of the owners.

One approach would be to establish a purchase price at the initiation of the contract. This would encourage the VP to make the company as profitable as possible, as it the increases to his marginal wealth of 10% above 150000 are not offset by the dramatic increases in purchase price. Also, this encourages him to make the company as profitable as possible as it will ultimately be his once the 5 years have passed.

1-4 Goal Alignment at New York City schools

1,800 New York City teachers who lost their jobs earlier this year have yet to apply for another job despite the fact that there are 1,200 openings. Why not?

New York is the only city in the U.S. where teachers are guaranteed pay for life even if their school closes and they no longer have a permanent job. The policy costs DOE more than \$100 million per year in salary and benefits. Those teachers go into the Absent Teacher Reserve pool, where they can be used as substitutes. The average salary for an ATR pool teacher? \$82,000, with some making \$100,000. Some teachers have been in the pool since 2006.

1-5 Goal Alignment between Airlines and Flight Crews

Planes frequently push back from the gate on time, but then wait 2 feet away from the gate until it is time to queue up for take-off. This increases fuel consumption, and increases the time that passengers must sit in a cramped plane awaiting take-off. Why does this happen?

Airlines are often evaluated and measured by their "on time" performance metrics. As this refers to boarding times rather than the time of actual departure, airlines would rather board the planes on time and wait on the tarmac than leaves passengers waiting at the gate.

1-6 Goal Alignment between Hospitals and the British Government

In 2008, the Labour party in Britain promised that patients would have to wait for no more than four hours to be seen in an emergency room. How is the National Health Service meeting this performance goal?

To meet this performance goal, seriously ill patients are being kept in ambulances. Thousands of people a year are having to wait outside the emergency departments because the trusts will not let them in until they will be able to be treated within four hours in accordance with the Labour pledge and government targets. In addition to keeping people outside, this also has reduced the ability of the ambulances to respond to emergency calls, leading to serious problems throughout the region.

Chapter 2

Short Answer Key:

2-1 Airline Delays

How will commercial airlines respond to the threat of new \$27,500 fines for keeping passengers on the tarmac for more than three hours? What inefficiency will this create?

Carriers say that to avoid those fines, they will aggressively cancel flights before and during storms—even if the bad weather never materializes. The threats could foreshadow significant changes in air travel, making it even less reliable for millions of road warriors and vacationers. By canceling flights, it could take days for all travelers to get home when storms strike. [\[link\]](#).

2-2 Selling Used Cars

I recently sold my used car. If no new production occurred for this transaction, how could it have created value?

The value of my willingness-to-sell was less than the buyer's willingness-to-pay. Any transaction price between these allows for a voluntary exchange in which we both benefit. Since we are both better off, value was created.

2-3 Flood Insurance

The U.S. government subsidizes flood insurance because those who want to buy it live in the flood plain and cannot get it at reasonable rates. What inefficiency does this create?

Subsidies are like taxes in this case. Taxation will keep some efficient transactions from being consummated because potential transactions where the difference in buyer and seller valuation is positive will no longer cover the amount of the tax to be paid. This prevents the asset from moving to its highest valued use. With a subsidy, transactions in which the assets moves from a higher valued use to a lower valued use can be consummated so long as the difference is less than the amount of the subsidy. This moves the asset to a lower valued use. With flood insurance worth an expected \$20,000, homeowners would be willing to spend \$120,000 to build a house that they value at only \$100,000. Wealth is destroyed.

2-4 France's Labor Unions Force Early Closing Times

In 2013, France's labor unions won a case against Sephora to prevent the retailer from staying open late, and forcing its workers to work "antisocial hours". The cosmetic store does about 20 percent of its business after 9 p.m., and the 50 sales staff who work the late shift are paid an hourly rate that is 25 percent higher than the day shift. Many of them are students or part time workers, who are put out of work by these new laws. Identify the inefficiency, and figure out a way to profit from it.

The inefficiency in this situation stems from the fact that the staff working the late shift valued the opportunity to work at the 25 percent increased wage more than not working during "antisocial hours". This regulation has not only diminished the value to the company, who is losing 20 percent of its business, but also the workers, who are now unemployed.

2-5 Kraft and Cadbury

When Kraft recently bid \$16.7 billion for Cadbury, Cadbury's market value rose, but Kraft's market value fell by more. What does this tell you about the value-creating potential of the deal?

It means that Kraft's shareholders, and potential shareholders, think that Kraft's profits will fall. This would be the case if Kraft's \$16.7 billion bid is greater than the present value of the expected future profits from the Cadbury unit. Essentially, the combined market value of the firms separately is greater than the market value of the firms together. The market thinks that combining these assets will destroy value.

2-6 Price of Breast Reconstruction Versus Breast Augmentation

Two similar surgeries, breast reconstruction and breast augmentation, have different prices. Breast augmentation is cosmetic surgery not covered by health insurance. Patients who want the surgery must pay for it themselves. Breast reconstruction following breast removal due to cancer is covered by insurance. The price for one of the surgeries has increased by about 10% each year since 1995, whereas the other has increased by only 2% per year. Which of the surgeries has the lower inflation rate? Why?

Market pressure comes from two sources: consumers who can choose not to purchase, and competitors who can offer lower prices. Breast augmentation is subject to both of these forces, and thus has a lower price, while breast reconstruction is covered by insurance where the consumer pressure is weaker.

**Managerial Economics:
A Problem-Solving Approach
5th Edition**

*Interactive HW Questions
(solutions to end-of-chapter multiple choice questions)*

Table of Contents

Chapter 1	3
Chapter 2	6
Chapter 3	Error! Bookmark not defined.
Chapter 4	Error! Bookmark not defined.
Chapter 5	Error! Bookmark not defined.
Chapter 6	Error! Bookmark not defined.
Chapter 7	Error! Bookmark not defined.
Chapter 8	Error! Bookmark not defined.
Chapter 9	Error! Bookmark not defined.
Chapter 10	Error! Bookmark not defined.
Chapter 11	Error! Bookmark not defined.
Chapter 12	Error! Bookmark not defined.
Chapter 14 (and 13)	Error! Bookmark not defined.
Chapter 15	Error! Bookmark not defined.
Chapter 16	Error! Bookmark not defined.
Chapter 17	Error! Bookmark not defined.
Chapter 18	Error! Bookmark not defined.
Chapter 19	Error! Bookmark not defined.
Chapter 20	Error! Bookmark not defined.
Chapter 21	Error! Bookmark not defined.
Chapter 22	Error! Bookmark not defined.

Chapter 1

1. Why might performance compensation caps be bad?
 - a. Different pay rates promote dissent. [A compensation cap is a maximum salary limit, it does not necessarily produce varied pay rates]
 - b. Compensation caps can discourage employees from being productive after the cap. [correct; at least with regards to salary, the employee is not rewarded for further productivity beyond the amount that produces the cap value]**
 - c. Compensation caps can discourage employees from being productive before the cap. [employees are incentivized to reach the value of the cap, encouraging productivity prior to its achievement]
 - d. Both b and c

2. What is a possible consequence of a performance compensation reward scheme?
 - a. It creates productive incentives. [As pay is tied directly to performance, such a policy may motivate workers to improve their performance for the additional compensation]
 - b. It creates harmful incentives. [Such a policy may create incentives to manipulate the performance indicators or outputs, or view that performance metric exclusive from the overall interests of the firm]
 - c. Both a and b [correct; could produce productive or harmful incentives depending on the situation and the character of the person being rewarded]**
 - d. Neither a nor b [Performance compensation schemes will produce some kind of incentives]

3. Which of the following is NOT one of the three problem solving principles laid out in Chapter 1?
 - a. Under whose jurisdiction is the problem? [correct; This is NOT one of the key problem solving principles].**
 - b. Who is making the bad decision? [This is one of the key problem solving principles]
 - c. Does the decision maker have enough information to make a good decision? [This is one of the key problem solving principles]
 - d. Does the decision maker have the incentive to make a good decision? [This is one of the key problem solving principles]

4. Why might it be bad for hotels to not charge higher prices when rooms are in higher demand?
 - a. Arbitrageurs might establish a black market by reserving rooms and then selling the reservations to customers. [This black market allows the arbitrageurs to capture the value of the increased demand rather than the hotels who are providing the rooms as well as creating a less reliable system for the consumer]
 - b. Rooms may be rationed. [If demand increases but prices do not, demand for rooms may exceed supply, forcing the hotel to ration the rooms and turn customers who would have been willing to pay higher rates away]
 - c. Without the profit from these high demand times, hotels would have less of an incentive to build/expand, making the long run scarcity problem even worse. [Such a policy essentially creates a performance cap on the hotels, limiting their profitability to the number of rooms rather than overall demand]
 - d. All of the above. [correct; all of these are potential negative impacts of hotels not adjusting prices to accommodate demand]**

5. The rational-actor paradigm assumes the people do NOT
 - a. Act rationally. [The *rational* actor paradigm does assume that people act rationally]
 - b. **Use rules of thumb. [correct;** the rational actor paradigm assumes people will act rationally, optimally and self-interestedly. Rules of thumb will only be used if they meet those three specific parameters]
 - c. Act optimally. [The rational actor paradigm does assume people will act optimally, selecting or creating the outcome that provides them with the most benefit]
 - d. Act self-interestedly. [The rational actor paradigm does assume that people will act in their own best interest]

6. The problem-solving principles analyze firm problems,
 - a. **from the organization's point of view. [correct;** considering a problem from the view of the overall organization will help ensure all elements and impacts are considered.]
 - b. from the manager's point of view. [Managers are also employees of the organization, thinking of a problem from only their perspective may overlook its impact on the company as a whole]
 - c. from the worker's point of view. [Thinking about a problem only from the employee's point of view risks missing the fundamental problem of goal alignment with the overall organization]
 - d. from society's point of view. [Society does not have the same goals and incentives as the firm.]

7. Why might welfare for low income households reduce the propensity to work?
 - a. It will not. [It can if working can only provide similar benefits to those that can be received from welfare without working]
 - b. **It reduces the incentive to work. [correct;** those receiving welfare may have less incentive to work if the benefits of working are similar to or worse than those that are received without it. Additionally, welfare may reduce the value of working for higher income workers who have to support the system, also reducing their incentives]
 - c. It is unfair. [Perception of fairness alone will not alter the propensity to work unless it also impacts the value of that work for the individual, which would impact his overall incentives]
 - d. It encourages jealousy. [Jealousy itself will not alter the propensity to work unless it also impacts the perceived value of that work, which changes the incentives]

8. Why might a "bonus cap" for executives be a bad policy for the company?
 - a. It isn't. Executives shouldn't make more than a certain amount. [Just like other types of employees, setting a maximum value for executives eliminates the ability to separate, reward and motivate them based on their performance]
 - b. It would sew discontent. [Even if discontented, the rational actor paradigm indicates executives would still perform to reach the cap value in order to maximize their bonus]
 - c. **It would encourage shirking after the executives reached the cap. [correct;** limiting the bonus may reduce the incentive of executives to continue improving or performing once it is achieved]
 - d. The cap could be set too high, so execs may work too hard and not reach it. [This is a problem not with the cap itself, but with the level, which can be adjusted as needed]

9. What might happen if a car dealership is awarded a bonus by the manufacturer for selling a certain number of its cars monthly, but the dealership is just short of that quota near the end of the month?
- It may sell the remaining cars at huge discounts to hit the quota. [correct; the loss of income from the reduced rate will be offset by the manufacturer's bonus]**
 - It creates an incentive to sell cars from different manufacturers. [the dealership is more inclined to sell cars from the manufacturer providing the bonus]
 - It would ruin the relationship between dealer and manufacturer. [The dealer is working to meet the requirements of the manufacturer to achieve the bonus]
 - Potential buyers will lose buying power at the dealer. [Potential buyers would gain buying power in this scenario since the dealership has incentive to lower prices]
10. Why might a supermarket advertise low prices on certain high profile items and sell them at a loss?
- It is a way for companies to be charitable. [The rational actor paradigm tells us the firm will act in its own self-interest]
 - The store will sell other groceries to the same customers, often at a markup. [correct; by using the discounted items to bring consumers into the stores, the supermarket can profit by increasing the prices on the other items they will purchase while they are there.]**
 - They would not. [Actually, they do quite often. Can you think of why this may be?]
 - This reduces the incentives of trade. [Trade incentives do not apply in this case]

Chapter 2

Multiple Choice Solutions:

1. An individual's value for a good or service is
 - a. The amount of money he or she used to pay for a good. [Past payments do not necessarily indicate the current value of a good or service to an individual]
 - b. The amount of money he or she is willing to pay for it. [correct; to "value" a good means that you want it and can pay for it]**
 - c. The amount of money he or she has to spend on goods. [Total individual wealth does not reflect the value of a particular good or service]
 - d. None of the above [To "value" a good means that you want it and can pay for it]

2. The biggest advantage of capitalism is that
 - a. it allows the market to self-regulate [Competition in the market results in self-regulation]
 - b. it allows a person to follow his self-interest [Transactions will not be consummated unless both sides' interests are met]
 - c. it allows voluntary transactions which creates wealth [Wealth-creating transactions only occur when both buyer and seller see a surplus]
 - d. All of the above [correct]**

3. Wealth creating transactions are more likely to occur
 - a. with private property rights [private property rights facilitate voluntary transactions]
 - b. with strong contract enforcement [contract enforcement helps facilitate voluntary transactions]
 - c. with black markets [black markets are often created from a wealth-generating arbitrage opportunity]
 - d. All of the above [correct; By making sure that buyers and sellers can keep the gains of trade, legal mechanisms such as private property and contract rights that facilitate voluntary transactions will help generate wealth; black markets also create wealth from seizing arbitrage opportunities that exist from inefficiencies in the market]**

4. Which of these actions creates value?
 - a. Buying a struggling firm and selling off its assets for more than the purchase price. [Other firms value the sum of the individual assets more than they did when the firm was a collection of individual assets.]
 - b. A baseball slugger drawing paying fans into the ballpark. [The baseball player increases the value of attending the game for ticket holders and potential ticket holders, thereby increasing ticket sales.]
 - c. A student increasing his decision-making ability with an MBA. [The student is more valuable to firms with an MBA than without]
 - d. All of the above [correct]**

5. Which of the following are examples of a price floor?
 - a. Minimum wages [correct; by outlawing wages below a certain price, minimum wages are an example of a price floor]**
 - b. Rent controls in New York [this is an example of a price ceiling, in which the price of rent cannot go above a specified value]

- c. Both a and b [Of the two options, one is indeed an example of a price floor, while the other is a price ceiling]
 - d. None of the above. [At least one of the answers above is an example of a price floor, which is defined as a regulation that outlaws trade at prices below the specified “floor” value]
6. A price ceiling
- a. Is a government-set maximum price. [A price ceiling is a regulation that outlaws trade above a specified price; it does not have to be above market equilibrium]
 - b. **Is an implicit tax on producers and an implicit subsidy to consumers. [correct;** Price ceilings prevent producers from selling at a higher price to consumers who would be willing to pay more, while consumers have the opportunity to purchase something they may not have been able to otherwise]
 - c. Will create a surplus. [Likely, both the consumer (buyer) and producer (seller) will value the good at or above the specified ceiling. If the producer is forced to sell, any surplus for the consumer is a loss for the producer, so no net surplus is created from the transaction]
 - d. Causes an increase in consumer and producer surplus. [Both the consumer (buyer) and producer [seller] likely value the item at or above the specified ceiling, resulting in a benefit for the consumer but a loss of potential wealth for the producers]
7. Taxes
- a. impede the movement of assets to higher valued uses. [This is the result of anything that deters a wealth creating transaction]
 - b. reduce incentives to work. [By not allowing people to capture the full value of their labor and production, taxes reduce the incentive to work]
 - c. decrease the number of wealth-creating transactions. [If a tax is larger than the total surplus created by a transaction, the transaction will not take place]
 - d. **All of the above. [correct;** when taxes are larger than the surplus of a transaction, that transaction will not take place, thus deterring a wealth creating transaction. Likewise, by not allowing people to keep the gains from their own trade, taxes can diminish the incentive to work].
8. A consumer values a car at \$20,000 and it costs a producer \$15,000 to make the same car. If the transaction is completed at \$18,000, the transaction will generate
- a. no surplus [A surplus is created from this transaction]
 - b. \$5,000 worth of seller surplus and unknown amount of buyer surplus [Seller surplus is \$3,000, (Final price less seller value); Similarly, buyer surplus can be calculated by looking at the difference between the buyer value and the final price.
 - c. **\$2,000 worth of buyer surplus and \$3,000 of seller surplus [correct;** Buyer surplus is calculated by looking at the difference between the buyer value and the final price ($\$20,000 - \$18,000 = \$2,000$), while the seller surplus is calculated by looking at the difference between the final price and the seller’s value ($\$18,000 - \$15,000 = \$3,000$)]
 - d. \$3,000 worth of buyer surplus and unknown amount of seller surplus. [Buyer surplus is \$2,000, (Buyer value less final price); similarly, seller surplus can be calculated by looking at the difference between the final price and the seller value]

9. A consumer values a car at \$525,000 and a seller values the same car at \$485,000. If sales tax is 8% and is levied on the seller, then the seller's bottom line price is (rounded to the nearest thousand)
- a. **\$527,000 (correct;** At a price of \$527,000, the seller will receive \$485,760 ($\$527,000 \times 0.92$) which is above his bottom line (For the exact value, look at $\$485,000 / 0.92 = \$527,173.93$. As the seller requires a number at or above this value, \$528,000 is the best response)]
 - b. \$524,000 [at a price of \$524,000, the seller will only receive \$482,080 ($\$524,000 \times 0.92$) which is below his bottom line]
 - c. \$525,000 [at a price of \$525,000, the seller will only receive \$483,000 ($\$525,000 \times 0.92$) which is below his bottom line]
 - d. \$500,000 [at a price of \$500,000, the seller will only receive \$460,000 ($\$500,000 \times 0.92$) which is below his bottom line]
10. Voluntary transactions
- a. **Always produce gains for both parties [Correct;** To be voluntary, both sides must see gains from consummating the transaction]
 - b. Produce gains for at least one party [If one side does not see value in the transaction, they will choose to not consummate the deal. Both sides must see value.]
 - c. Always increase wealth for everyone [Voluntary transactions only create wealth for the parties involved.]
 - d. Are inefficient [Voluntary transactions move assets to their higher-value uses, a feature of an efficient market]

