**Homework 2 is due 6 October, 2009 (Tuesday) between 12:40 and 13:30 and should be submitted to discussion leaders in office MA223. Homeworks should be typed (including graphs) and turned in as hardcopies. Late and e-mailed assignments will not be accepted.**

**Part I: Problems**

**Question 1 (22 points):** Answer the following questions using the information in Table 1.

<table>
<thead>
<tr>
<th>Price</th>
<th>Q_D by Taner</th>
<th>Q_D by Refet</th>
<th>Q_D by Selin</th>
<th>Q_D</th>
<th>Quantity supplied</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>10</td>
<td>12</td>
<td>31</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>8</td>
<td>27</td>
<td>11</td>
<td></td>
<td></td>
</tr>
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<td>6</td>
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<td>4</td>
<td>15</td>
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<td>4</td>
<td>11</td>
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<td></td>
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<td>8</td>
<td>4</td>
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<td>31</td>
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<tr>
<td>9</td>
<td>2</td>
<td></td>
<td>5</td>
<td>35</td>
<td></td>
</tr>
</tbody>
</table>

a. (7 points) Derive the total demand schedule of the three of us for cups of coffee (assuming that each individual demand curve is linear). Graph demand and supply for the market.

b. (5 points) Find the equilibrium price and quantity of coffee consumption for each of us.

c. (5 points) Assume that we each decide to drink 4 more cups per week. What happens to the market price and quantity?

d. (5 points) Assume that Starbucks decides to expand their business by supplying 8 more cups at each price. What happens to the market price and quantity?

**Question 2 (30 points):** Answer the below questions using the market on Picasso paintings.

a. (5 points) Draw your expected demand and supply curves for the Picasso paintings market.

b. (5 points) What would happen to equilibrium price and quantity if the world income distribution changed in such a way that doubled the income of the very rich?

c. (5 points) What would happen to equilibrium price and quantity if the Picasso family decided to sell half of their paintings?
d. (5 points) What would happen to equilibrium price and quantity if a new batch of Salvador Dali paintings were discovered in the inheritance of a private collector?

e. (5 points) What would happen to equilibrium price and quantity if technology improved to allow robots to exactly replicate Picasso paintings?

f. (5 points) Assume that questions (b) and (c) both happened at the same time and they had a doubling effect. What would happen to equilibrium price and quantity?

**Question 3 (21 points):** Answer the following questions about the cigarette market.

a. (5 points) Studies indicate that the price elasticity of demand for cigarettes is about -0.4. If a pack of cigarettes currently costs 3TL and the government wants to reduce smoking by 20 percent, by how much should it increase the price?

b. (5 points) If the government permanently increases the price of cigarettes, will the policy have a larger effect on smoking one month from now or five years from now? Explain.

c. (5 points) Studies also find that teenagers have a higher price elasticity than adults do. Why might this be true?

d. (6 points) Assume the demand and supply for cigarettes are given as follows. Calculate the price elasticity of demand for cigarettes when the price is somewhere around 2.25 to 2.50 TL. Calculate the price elasticity of supply for cigarettes when the price is somewhere around 2 to 2.5 TL.

<table>
<thead>
<tr>
<th>Price</th>
<th>1.75</th>
<th>2.00</th>
<th>2.25</th>
<th>2.50</th>
<th>2.75</th>
<th>3.00</th>
<th>3.25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantity demanded</td>
<td>180</td>
<td>170</td>
<td>160</td>
<td>150</td>
<td>140</td>
<td>130</td>
<td>120</td>
</tr>
<tr>
<td>Quantity supplied</td>
<td>105</td>
<td>110</td>
<td>115</td>
<td>120</td>
<td>125</td>
<td>130</td>
<td>135</td>
</tr>
</tbody>
</table>

**Part II (27 points): Essay and discussion:** Read the newspaper article titled “HURRICANE CHARLEY: THE ECONOMICS; With Storm Gone, Floridians Are Hit With Price Gouging” and provide answers to the questions that follow.

HURRICANE CHARLEY: THE ECONOMICS; With Storm Gone, Floridians Are Hit With Price Gouging

By JOSEPH B. TREASTER; Reporting was contributed by Merissa Green in Lakeland, Linda Brockman in West Palm Beach and Terry Aguayo in Miami.
Published: Wednesday, August 18, 2004

Greg Lawrence talks about the $10 bag of ice. Kenneth Kleppach says he was clipped for nearly three times the advertised price for a hotel room. And a man with a chain saw told Jerry Olmstead that he could clear the oak tree off his roof, but it would cost $10,500.
So much for a friendly, helping hand in a time of crisis. Since the winds of Hurricane Charley subsided, officials say a wave of price gouging has swept across central and southwest Florida, putting law enforcement officials into high gear and infuriating storm victims already faced with damaged homes, shuttered workplaces and long lines for basic commodities.

"Why do people try to capitalize on other people's hardship and misery," Mr. Olmstead asked as he fumed over the tree removal. "Of course it angers me. They see an opportunity and, fine, if you want to make a little money. But there's a limit. This is ludicrous."

Charlie Crist, Florida's attorney general, said Tuesday afternoon that he had received more than 1,400 complaints of overcharging from throughout the disaster area. This morning he filed formal complaints against the Crossroads Motor Lodge in Lakeland and the Days Inn Airport Hotel in West Palm Beach, accusing them of price gouging and deceptive business practices.

Not every complaint checks out, and certainly the stricken areas of Florida are filled with volunteers and people offering free food or charity. But there are also those brazenly looking to make some extra money.

Some gas stations facing long lines of cars with empty tanks are charging $3 a gallon for gas that would normally go for $1.78, said John McMahon, a sheriff's investigator in Orlando's surrounding Orange County.

In one of the boldest cases, some contractors from Jacksonville offered to clear two trees off the roof of an Orlando woman for $23,000, Mr. McMahon said. The woman declined the offer.

In Port Charlotte and in Arcadia, two of the most devastated places, scam artists have been posing as independent insurance claims adjusters, offering, for $500 to $2,000, to help resolve claims with insurance companies, the state's Department of Insurance said.

Mr. Crist said of the complaints coming into his office, "This is just the start." He added, "We saw this after Hurricane Andrew and we're seeing it again."

Mr. Crist has dispatched teams to help consumers, and squads of sheriff's deputies and consumer advocates are also working to discourage price gouging.

While many of the complaints have been coming from Punta Gorda and Arcadia, Orlando, at nearly 200 complaints, is leading the list, with Fort Myers, just south of where the hurricane came ashore on the Gulf Coast, running a close second. Under Florida law, each proven case of price gouging carries a penalty of $1,000; each case of deceptive business practices carries a penalty of $10,000 except when the victim is over 60, in which case the penalty rises to $15,000. The complaints began to trickle in as the storm was approaching and a few came in immediately afterward. But now the pace is picking up, said Sara Kinsey, who has been working late into the night answering the attorney general's complaint hot line.
She said she had heard from a man who said he was told that the new price for a small household generator was now $2,000, up from about $250.

Many of the complaints have been for two necessities: bottled water and ice. But prices have also jumped for construction work and construction materials, and the authorities expect more of that as the recovery stretches on.

Janet Snyder, a pharmacy technician in Cape Coral, said several men in two pickup trucks spotted her roof damage and offered to lay down a temporary covering of plastic sheeting. They wanted $600, about four times what she figured was the right price, based on 15 rolls of plastic that usually sell for $10 each.

Across the state, in Ormund Beach, Chris Boyce, a salesman for a roofing supply company, said that when his company tried to restock on Monday the wholesaler tried to raise the price of tar paper 40 percent, to $10.50 for a roll of 216 square feet. "That's criminal," Mr. Boyce said he told the wholesaler, adding, "I'd rather not have it at that price."

Ms. Kinsey said that in one instance a price gouger simply took advantage of anxiety and fear that there was no ice to be had. He bought several chests of ice in a grocery store in a mall at the usual $1 or so for a big party-size bag, she said, stepped outside and began selling scoops of ice for $2 each.

Mr. Lawrence, a cook who is studying to become a Web site designer, came across a gas station here in Orlando selling the equivalent of two $1 bags for $10. "I said, 'Are you kidding?' and he just looked at me," Mr. Lawrence said. "There were mobs of people buying ice from the guy. Even though that was the only place I could find ice, I refused to buy it."

The first wave of opportunistic pricing came from motels and hotels as the hurricane was approaching, Mr. Crist said. Many people fled the Tampa Bay area after forecasters calculated incorrectly that the hurricane would be coming ashore there.

Mr. Kleppach and his family were among them. They drove inland, and every hotel they checked was full. They continued across the state to the East Coast city of Fort Pierce and still could not find a room.

Finally, in West Palm Beach, Mr. Kleppach said in court documents filed in the attorney general's lawsuits, he saw a sign at the Days Inn Airport Hotel reading, "ALL ROOMS - $39.99." There were two rooms left. But the price, Mr. Kleppach said, was $109.00. "I was desperate and needed shelter for my family," he said, "so I took the room for that price."

At the hotel on Tuesday, Andrew Hill, the manager, refused to discuss the attorney general's accusations.
In Plant City, just east of Tampa, Rosemary Duffield, who is in her 80's, decided she should get out of her mobile home and she booked a room a little farther inland, at the Crossroads Motor Lodge in Lakeland, she said in court papers. She was told the price would be $44.79, she said. But when she called to reconfirm later in the day, the price was $55.79. After checking in on Friday and settling into her room, she discovered that she had been charged $61.27.

She did not argue with the hotel, but she complained to the attorney general. She did not respond to a reporter's message left on her answering machine Tuesday.

At the Crossroads Motor Lodge, a man who said he was the manager but would not give his name denied that he had been overcharging. "How can we gouge?" he asked. "We advertise in the newspaper."


Questions:
1. (9 points) Pick the illegal ones from among the cases mentioned above and discuss why you think they are criminal.
2. (9 points) Explain the changes in the price of an ice bag using a demand-supply graph.
3. (9 points) How can the government prevent price gouging? Discuss considering the legality issue you discussed in question 1.