

AEC 305 (Fall 2009)
Exam I (20%)

Name _____

1. Match the following approaches in analyzing agricultural markets (on the left) with its general description (on the right). (2 points each)

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|---|--|
| ___ A ___ Institutional Approach | A. analyzing the major marketing participants such as farmers, processors, retailers, and consumers |
| ___ B ___ Functional Approach | B. analyzing the major marketing activities such as transporting, processing, storing, and financing |
| ___ C ___ Behavioral Approach | C. analyzing the performance of a market such as the effectiveness of advertising or the equity in the distribution of profits |

2. Identify two items that agricultural producers (farmers) desire from the ag marketing system AND two items that consumers want from the food marketing system. (2 points each)

- *Producers -- "Fair" (high) prices, market information, availability of inputs, access to markets, ability to add value, respect*
- *Consumers -- "Fair" (low) prices, abundant supplies at all times of the year, variety of products/product forms/sizes, convenience, quality/fresh, safe/nutritious/ payment options*

3. You have been asked by President Todd to construct an index to determine how prices of goods and services purchased by college students has changed over time as one piece of data in establishing tuition rates. Discuss how you would go about your task. (5 points)

First one must determine the components such as entertainment, food, clothing, books, tuition, etc. Next one must determine the individual weights (relative importance) for each component and the time periods to collect prices and finally select a base year.

4. Today's food marketing system is being impacted by the following terms: demographics, consolidation, market power, economies of size (scale), and consumer sovereignty. Choose two of these five terms and write a statement for each one that applies to today's food marketing system which reveals that you understand these terms. (5 points)

Demographics – discuss how the aging population, growth in Hispanics, higher income consumers and other factors about the distribution of the food-consuming population is impacting the types of products/services offered in today's food markets

Consolidation – discuss how consolidation could enhance market power vs economies of size – impact on prices

Market Power – ability to increase price above a competitively determine price

Economies of Size – lower per unit costs evolve as firm increases in size

Consumer Sovereignty – consumer dictates products/services through purchasing decisions

5. What does the Consumer Price Index measure? Identify two ways the CPI is used. (6 points)

The CPI measure the change in the general price level of goods and services in the economy, In addition to being a variable closely watched in establishing our nation's monetary policy, the CPI can be used as a deflator (adjusting nominal values for inflation and to adjust dollar values such as social security payments or wages.

6. Look at the Table at the bottom of a story that ran last week in the Wall Street Journal discussing how the September 2009 Keeneland (Yearling) horse sales average price had declined to \$167,368. **(No need to read the entire article to answer the question).** The average price at the September 1990 Keeneland (Yearling) horse sale was \$86,500, when the CPI value was 133 (for September 1990, using 1982-84 as the base year). The most recent CPI value was 215 (August 2009 using 1982-84 as the base year). Assuming 0% inflation in September 2009.

a. Show your calculations to see if the real average price has increased or decreased in September 2009 vs September 1990. (5 points)

September 1990: $(\$86,500/133)*100 = \$65,038$

September 2009: $(167,368/215)*100 = \$77,846$ – indicating the real value has increased

b. Does this indicate the average price of horses has increased more or less than the overall rate of inflation since 1990. How can you tell? (3 points)

Increased more since the real value has increased



Kentucky may be known as the Bluegrass State, but the first sessions of the annual Keeneland Yearling sale -- one of the world's most renowned thoroughbred auctions -- had horse breeders singing the blues. With the economy still listing, numbers were down in every category during the first four days of Keeneland's September auction. That's a bad sign for horse racing, since yearling sales figures are generally considered the leading indicator of the health of the sport. After the first four days of the auction, when the most-promising thoroughbreds are in the ring, the total number of horses sold stood at 703, compared with 837 last year. The gross money spent came to \$117.7 million compared with \$204.7 million in 2008. That put the average sale price at \$167,368, and the median sale price at \$110,000, compared with \$244,562 and \$180,000 last year. "We all anticipated a downturn," said Geoffrey Russell, Keeneland's director of sales. "But people were surprised by the level of the drop." Even prices for the top thoroughbreds are fading fast. A colt named Storm 'n Indian (pictured), sired by Storm Cat and out of the mare Fleet Indian, fetched the highest price of the week -- \$2.05 million, from agent John Ferguson on behalf of Dubai ruler Sheik Mohammed bin Rashid al Maktoum. But that price was 34% less than the top seller last year, when a filly sired by A.P. Indy earned the highest bid of the auction at \$3.1 million. At the Fasig-Tipton Calder sale in 2006, a horse named The Green Monkey set the record auction price of \$16 million but never won a race.—Matthew Futterman

Year (First Four Days)	Total Horses	Sold Total Gross	Average
2005	917	\$271.8M	\$296,418
2006	862	\$272.9M	\$316,600
2007	854	\$243.3M	\$284,883
2008	837	\$204.7M	\$244,562
2009	703	\$117.7M	\$167,368

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7. Identify four reasons that have been contributing factors to the increase in food prices in recent years (2 points each)

1. Reduced Grains for Food/Feed Due to the Expanding Ethanol Market
2. Increasing Population
3. Increasing Incomes
4. Others, including, Weak U.S. Dollar, World Weather, Trade Policy Limiting Trade, Higher Marketing Costs such as Increasing Energy/Labor Costs

8. For every one dollar the U.S. consumer spends on food approximately 20 cents is related to the farm value and approximately 80 cents reflects the cost of marketing the item from the farm to the consumer. (4 points)

MULTIPLE CHOICE: CIRCLE THE CORRECT ANSWER. (4 points each)

9. Which one of the following would have the smallest impact on the retail (consumer) bread prices?

- a. A 25% increase in the farm-level price of wheat – a major ingredient to make bread.
- b. A 25% increase in transportation costs
- c. A 25% increase in labor costs for food companies
- d. A 25% increase in packaging costs

10. According to the Center for Agricultural Rural Development (Iowa State), the primary reason why food prices have risen more slowly than incomes and other prices is due to:

- a. Decrease in food marketing costs
- b. Excessive farm production
- c. Rapid productivity growth on the farm and all along the food chain
- d. Limited competition in the food marketing system

11. Which one of the following statements is incorrect?

- a. Retail food prices tend to be less volatile than farm prices.
- b. Prior to the past two years, food prices have generally risen less than the CPI.
- c. Increased corn prices will likely have a greater adverse (negative) impact on food prices in lower-income countries.
- d. If the annual rise in food prices declines from +5% to + 2%, the index value for the CPI for Food would decline.

12. Which one of the following statements is correct?

- a. If the farm price of milk declines in the current year compared to their price in a selected base year, its corresponding price relative will be negative (i.e., less than zero).
- b. A decline in a corn farmer's costs of production (e.g. seed, fertilizer, chemicals, etc.) will cause the farm to retail price spread for food products that use corn to increase.
- c. The farmer's share of the food marketing bill will always be lower than the farmer's share of the food market basket.
- d. A food market basket price index will decline if the quantity of food purchased in the market basket declines.

13. The decline in the farmer's share of retail food expenditures over the past five decades has been affected more by which one of the following trends.

- a. consumers demanding more convenience, variety, additional processing, and eating-out
- b. lower farm prices
- c. increasing profits of concentrated food marketers
- d. increasing costs of transportation

14. Given the following data for 2008:

Total Food Expenditures at Home: \$600 billion
Total Food Expenditures Away from Home: \$565 billion
CPI for Food (1982-84 = 100): 214.1
Total U.S. Population (July 1, 2008): 303.8 million

Calculate the TOTAL real per capita food expenditures. (5 points)

$$((600+565)/214.1)* 100 = 544 \text{ billion}/303.8 \text{ million} = \$1791$$

15. Look at the following USDA table that displays price indexes for various food marketing costs.

	Annual			2009
	2006	2007	2008	1st Qtr
Labor	581.2	601.9	617.8	632.6
Packaging and containers	489.4	500.4	534.0	549.4
Transportation services	482.8	500.7	558.9	518.8
Advertising	735.1	770.3	779.4	780.2
Fuel and power	1,086.7	1,149.4	1,381.3	972.6
Communications	338.7	351.2	364.9	374.9
Rent	272.4	275.9	281.1	284.5
Maintenance and repair	667.7	686.7	718.8	741.5
Business services	614.0	634.0	655.4	662.9
Supplies	418.2	435.5	491.9	459.4
Property taxes and insurance	732.5	757.3	776.3	786.9
Interest, short-term	83.1	76.7	28.0	6.8
TOTAL MARKETING COST INDEX	571.2	590.8	625.0	611.5

- a. Interpret the index value for “Total Marketing Costs” for 2008 relative to the base year. (3 points) *Marketing Costs have increased 525% since 1987*
- b. Calculate the percentage change of “Total Marketing Costs” from 2007 to 2008. Show your calculations. (3 points) $((625.0 - 590.8) / 590.8) * 100 = +5.8\%$
- c. Did “Total Marketing Costs” go up or down during the first quarter (1st) of 2009? Look at the index values for the individual components. Without any calculations can you identify the major reason for this change in “Total Marketing Costs”? (4 points) *They went down as reflected by a lower index value, primarily in response to much lower fuel and power prices*

16. Circle if the statement is True or False. **IF FALSE, CORRECT THE STATEMENT TO MAKE IT TRUE.** (3 points each)

- a. **True** or False: As consumers eat less meals away from home and buy less processed food items during the recession, the farm value of the retail food dollar should increase slightly, holding all other factors constant.
- b. **True** or **False**: An increase in the USDA market basket index for retail food prices from a value of 200 to a value of 205 indicates a 5% increase in food prices. $(205 - 200) / 200 * 100 = 2.5\%$
- c. **True** or **False**: The price index value can only be equal to 100 in the base period. *Can be equal to 100 in other periods if the price is the same as the base period.*
- d. **True** or **False**: Disappearance is a measure of consumption which can be derived by the following expression: (beginning stocks + production + imports) – (exports + ending stocks).
- e. **True** or **False**: A Laspeyres price index can be solved by summing the product of all the price relatives for the commodities in the index times their respective weights, which are determined by the base quantities.