# Teaching Ethics with FTS

FTS uses experiential learning in an interactive market setting to focus on individual decisions involving unethical behavior, the relationship to social norms, and the impact of such behavior on social outcomes. The market setting provides a unique way for students to not only face ethical dilemmas but to go beyond that and evaluate the implications of unethical behavior by individuals and groups for society.

We use insider information as the catalyst for the discussion. The simplest and most straightforward case is BE1 below, initially designed for Bentley University's "Freshmen Equity Trading Session" in September 2009, with the entire entering freshman class running through the simulation. In the case, a subset of market participants is provided with early information on the earnings of a firm. They have the option of accepting the information or declining it. The information is always correct, and if they accept it, it can help them trade in the market and *potentially* make far greater profits than if they declined it. It is known that the information was not supposed to be leaked; whether it is illegal to accept the information is left ambiguous, but it is fairly clear that accepting it would be considered unethical behavior by most.

The key word above is "potentially." The value of the information depends on several things. First, how useful the information itself is; this can range in the treatments from being very useful to being marginally useful. Second, it depends on how many people receive information and how many choose to accept it. What is interesting here is that an individual's decision in each case depends on what they think others in the market are doing, and so in fact is affected by what they think the social norms are. For example, their behavior is typically different "if everyone is doing it" from when they think they may be the only person receiving the information. So the outcome will be endogenous to the group at hand, depending both on their own ethical propensities and their view of the propensity of others (in other words what they think the norm is). Third, there is the market itself: the group behavior can have a strong effect on the market itself. In the FTS Markets, all the trading activity is done by the market participants themselves. In the current context, several outcomes are possible all of which affect the profitability of information. On one extreme, it may be a very active market where you can take advantage of your information. Or it may be the case that the information gets priced into the market quickly, and you only have a brief advantage. On the other extreme, it may be the case that the market collapses: no one wants to trade because they think that the presence of insiders makes it unfair or stacked against them. The actual market outcome is clearly influenced by the ethical propensity of the group as well as their perception; it could be the case that no one engages in unethical behavior yet the market fails because everyone thinks that most people are unethical.

The information/trading scenarios are repeated (independently). Over the repetitions, the participants get a better idea of the propensity of their group and the market outcome. Of course, these perceptions change as the sessions are repeated; this in turn affects individual and then group behavior, and then the market outcome. Each scenario lasts about five minutes, and so you can easily run several repetitions within an hour. The baseline scenario is one without any information.

The exercise simulates a real life ethical situation which is otherwise very difficult to do in the classroom. Most of the main points become clear to the participants after four or five repetitions. This is helped enormously by the fact that they are live participant s in the exercise, and are constantly evaluating both their own behavior and that of the group. The participants face a moral dilemma, and they have to make a decision. Because they make the decision, and the decision directly affects others, whatever decision they make, they will unquestionably think about why they made this decision, and become keenly aware of the consequences of the decision. But it is not an individual decision taken in the abstract; it is influenced by what others do and what you think they may do, and it has a direct consequence on the entire group. This transforms the discussion of ethics from an abstract textbook world into a dynamic real life situation. Follow on cases allow participants to communicate information to each other, make true or misleading public disclosures and other features that introduce more gray areas and more ethical dilemmas into the case.

Following the trading, the discussion can focus on a variety of issues beyond the specifics of what happened including both social and normative aspects. One that we think is important is the impact on social outcomes; in the market setting of this exercise, one outcome is the liquidity in the market. If there is very little trading, then this has the social consequences of undeveloped capital markets, inability of companies to raise capital, with corresponding impact on growth, the standard of living, and so on. There are non-economic outcomes as well that relate easily to participants experience, such as their faith and trust in institutions. More broadly, the discussion could encompass the foundations of moral and ethical principles, moral psychology, and applied ethics.

# Trading Case BE1

**Case Outline**
In this case, some traders receive insider information about the earnings of companies. It is unethical and sometimes illegal to use insider information, even though it may help you make money. When you receive the information, you have the option of declining it; if you decline the information, you will not be able to see it. If you do not decline the information, you will see the information. The information is always correct.

**Key Concepts**
Ethics, social norms, insider trading, and market efficiency.

**Case Description**
The case has 3 stocks: ABC, CRA, and BPH. You will start with an initial position in the stocks. You can trade (i.e., buy or sell) the stocks for one trading period. At the end of the trading period, the actual earnings will be announced. Based on these earnings, the companies will be valued as described below. Your portfolio value at these values will then determine your performance. The interest rate on cash is 0%. You can borrow and short sell the stocks.

**Case Data**
The value of a company will be a multiple of earnings. Based on past information, the multiples at which these companies trade, or the "P/E" ratios of the companies, is given below. For each company, analysts have produced a range of earning, where for simplicity we have reduced the possible earnings over the trading period to six equally likely earnings per share. The earnings of the companies are independent of each other.

| Company | Multiple | Earnings | | | | | |
|---|---|---|---|---|---|---|---|
| **ABC** | 15 | 0.7 | 0.72 | 0.75 | 0.78 | 0.8 | 0.81 |
| **CRA** | 20 | 0.5 | 0.575 | 0.65 | 0.725 | 0.85 | 1 |
| **BPH** | 30 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 1.2 |

So the possible end of period value of each company can be one of six possibilities, each determined independently:

| Company | Values | | | | | |
|---|---|---|---|---|---|---|
| **ABC** | 10.5 | 10.8 | 11.25 | 11.7 | 12 | 12.15 |
| **CRA** | 10 | 11.5 | 13 | 14.5 | 17 | 20 |
| **BPH** | 12 | 15 | 18 | 21 | 24 | 36 |

**Example**
Suppose that at the end of the trading period, the realized earnings per share of ABC are 0.72, of CRA are 0.85 and those of BHP are 0.4. Then the value of ABC will be 11.25, that of CRA will be 17, and the value of BPH will be 12.

**Information**
At the beginning of the trading period, you may receive information about the earnings. The information will always be correct. When you receive information, you can decline it. If you do not decline the information, you will be shown the information. The information is always correct.

**Trading Objective**
Your aim is to maximize your portfolio value.