

I, ROSE: VALENTINE'S DAY MEETS ECONOMICS

Lecture Plan

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LECTURE OBJECTIVE

Introduce students to the *price system*: how markets connect to one another and form a sophisticated global network that is constantly adjusting based on price signals. This lecture uses a Valentine's Day analogy to illustrate key points.

MATERIALS & RESOURCES

VIDEO: *I, Rose*

Marginal Revolution University | Principles of Microeconomics course | www.MRUniversity.com

VIDEO: *A Price is a Signal Wrapped up in an Incentive*

Marginal Revolution University | Principles of Microeconomics course | www.MRUniversity.com

TEXTBOOK: Any principles of economics textbook. The videos are based on *The Price System: Signals, Speculation and Prediction in Modern Principles of Economics*¹ by Tyler Cowen and Alex Tabarrok but are appropriate for use by any teacher using any textbook.

BIG IDEAS

I, Rose

The goal of the first video, *I, Rose*² is to open students' eyes to the mind-boggling complexity of a modern economy. Other examples can also be used to illustrate the same idea in the classroom: Ask students to think about how many products from how many countries are easily available at a supermarket (show a well-stocked supermarket aisle). Or consider an Apple iPhone which is produced by suppliers from all over the world—including many from China but also Italy, Japan, the Czech Republic, Korea, Germany, France and from across the United States. We found a supplier, for example, in Manassas, VA close to where we work and you may find one close to your location as well.³

Starbucks offers another simple but effective example. Try searching online for “Starbucks supply chain” and also look for the infographic showing the places in the world where Starbucks buys its coffee, sugar, and paper.⁴

FLOWER FACTS

- Approximately one billion flowers will be delivered in the United States over the Valentine's Day season.
- 850 million flowers are imported for Valentine's Day, primarily from Colombia and Ecuador but also from the Netherlands, Kenya, Thailand and elsewhere.
- More than five billion flowers are imported annually.
- On average, more than 21 million flowers are auctioned off for global distribution in Aalsmeer, Holland every day.
- There are approximately 17,000 florists across the United States.

1. <http://www.macmillanhighered.com/Catalog/product/modernprinciplesofeconomics-thirdedition-cowen>

2. The title comes from Leonard Read's 1958 essay “I, Pencil” <http://www.econlib.org/library/Essays/rdPnc1.html>

3. Apple's supplier list can be found here, https://www.apple.com/supplier-responsibility/pdf/Apple_Supplier_List_2014.pdf

4. <http://www.princeton.edu/~ina/infographics/starbucks.html>

Challenge students to take a simple product and trace its origins as far as they can noting that each supplier itself has suppliers and so do each of the suppliers' suppliers!

Briefly mentioned in the video is Aalsmeer – the town in the Netherlands that hosts the world's largest flower market. An excellent article and video can be found at *The New York Times* (search at NYTimes.com for "Aalsmeer" see the Dec 16, 2014 article).⁵ Further discussion could examine the economics of Dutch auctions, middlemen and how the Internet is changing commerce.

A Price is a Signal Wrapped up in an Incentive

The complexity of the world economy is amazing and it's even more amazing when we realize that the intricate global coordination of markets and people is constantly changing.

A Price is a Signal Wrapped up in an Incentive starts by looking at how the flower industry moved offshore in response to the increase in the price of oil in the 1970s. The goal here is to show that competition is a discovery procedure. The increase in the price of oil signaled to entrepreneurs that it would be profitable to cut back on their use of oil but the myriad ways in which this was done could never have been predicted or planned. First, entrepreneurial inspiration is equally as unpredictable as scientific or artistic inspiration. Second, the information that is necessary to respond to change is not and could not be centrally collected, rather it is dispersed. Thus, to respond to change we must give individuals the information and the incentives that they need to use their entrepreneurial insight and localized knowledge to move in the right direction. Prices convey both information and incentives, hence the title of the video!

Advanced students may be directed to read Friedrich Hayek's *Use of Knowledge in Society*⁶, a deep yet accessible paper that first made many of these ideas clear.

Further discussion can go in several directions. One may wish to compare, for example, the price system with central planning: How do the two systems try to solve the problem of information and incentives? What are some of the benefits of the market system? What are some of the benefits of central planning?

Another direction is to delve deeper into how prices contain information. In recent years, for example, markets have been designed to elicit information about future events. The Iowa Electronic Markets, (<http://tippie.uiowa.edu/iem/>), for example, use markets to predict elections. Students are often intrigued to discover that it's quite easy for them to trade in these markets. Over nearly 20 years the Iowa prediction markets have been more accurate and timely in predicting elections than have polls. Why are market predictions more accurate than polls? Which other future events could markets be used to predict (see The Hollywood Stock Exchange (<http://www.hsx.com/>) for one example)? How do prediction markets illustrate the information role of prices? *Modern Principles of Economics* discusses many of these ideas at greater length. For more, see the Prediction Markets⁷ video at MRUniversity.com.

ABOUT THE AUTHORS

Tyler Cowen & Alex Tabarrok, co-founders of Marginal Revolution University, are professors of economics at George Mason University, co-authors of the popular economics blog MarginalRevolution.com, and the highly-acclaimed principles of economics textbook *Modern Principles of Economics*.

5. <http://www.nytimes.com/2014/12/17/world/europe/dutch-flower-auction-long-industrys-heart-is-facing-competition-.html>

6. <http://www.jstor.org/stable/1809376>

7. <http://mrucourses.com/courses/principles-economics-microeconomics/prediction-markets>