

# Economics 404W

## lecture 16

Professor Tybout  
March 2, 2006

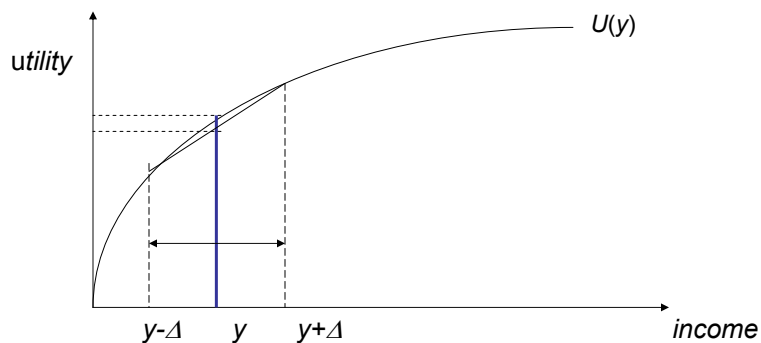
### Problems that *do* commonly occur in LDCs

- Corruption creates uncertainty in firms' dealings with the government.
- Volatility and uncertainty in the macro environment compound the unpredictability problem
  - Externally induced
    - terms of trade shocks
    - global capital market shocks
  - Internally induced
    - fiscal deficit,
    - public consumption,
    - M1 growth

Standard Deviations of Macro Variables, Policy Variables and External Shocks, by Region							
	DCs	LAC	E Asian Miracle	S. Asia	Other E. Asia & Pacific	Sub-Saharan Africa	Middle East and N. Africa
<b>Macro Outcomes</b>							
GDP growth	2.2	4.7	3.0	3.4	4.1	5.3	7.9
Consumption growth	2.1	5.6	4.1	5.4	4.0	10.3	8.2
Investment growth	8.3	16.1	16.4	11.0	15.3	28.7	20.3
Change in real exchange rate	4.8	13.4	6.2	n.a.	8.9	19.4	5.5
Annual Inflation rate	3.9	463.5	6.2	7.9	10.8	88.7	7.0
<b>Policy</b>							
Fiscal Deficit (%GDP)	2.4	4.7	2.4	4.2	3.5	4.5	8.5
Public consumption (%GDP)	1.6	2.5	1.1	2.1	4.1	3.7	5.5
M1 (%GDP)	2.4	5.5	1.9	1.4	1.0	3.8	3.1
M1 growth	5.6	211.1	13.6	7.4	13.3	93.7	13.1
<b>External Shocks</b>							
Terms of trade growth	8.9	5.1	8.0	7.9	11.4	22.1	25.6
International Cap. Flows (%GDP)	1.7	2.8	1.5	1.1	3.9	4.4	6.1

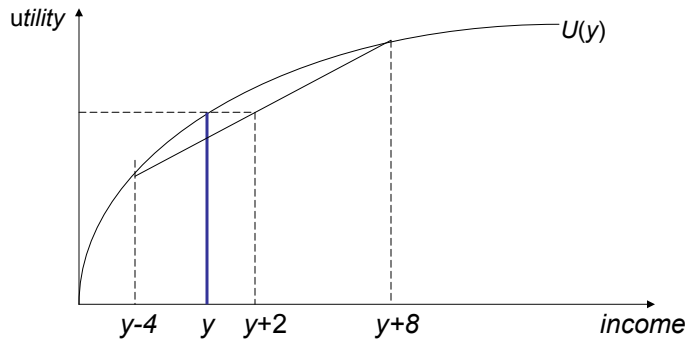
## How does uncertainty affect behavior?

1. Risk-averse individuals avoid investments with uncertain outcomes.



Above, the individual forgoes an even bet that pays  $\Delta$  with probability 0.5, and costs  $\Delta$  with probability 0.5.

## How does uncertainty affect behavior?



Above, an individual is indifferent between keeping her income of  $Y$  and making investment that yields a net expected return of 2. (The investment is equally likely to earn a net return of 8 or earn a net loss of 4.)

## How does uncertainty affect behavior?

- Even with risk neutrality, uncertainty creates incentives to adopt flexible technologies.

	<i>Inflexible technologies</i>		<i>Flexible technologies</i>
<i>Policy bias:</i>	Profits with tech. 1 (especially for nontradeables)	Profits with tech. 2 (especially for tradeables)	Profits with flexible tech.
Policy favors tradeables (probability=.5)	-30	30	20
Policy favors non-tradeables (probability =.5)	30	-30	20

## How does uncertainty affect behavior?

3. Uncertainty in the presence of pre-commitment (sunk costs) also creates incentives to wait and see what happens.

### Example

- Suppose an exporting contract commits a firm to two periods of supply.
- Whether exporting is profitable or not depends upon exchange rate policy:

Policy regime	Period 1	Period 2
<i>Favorable</i>	150	150
<i>Unfavorable</i>	-100	-100

- As seen from the current period, either regime is equally likely. But next period the policy uncertainty will be resolved.

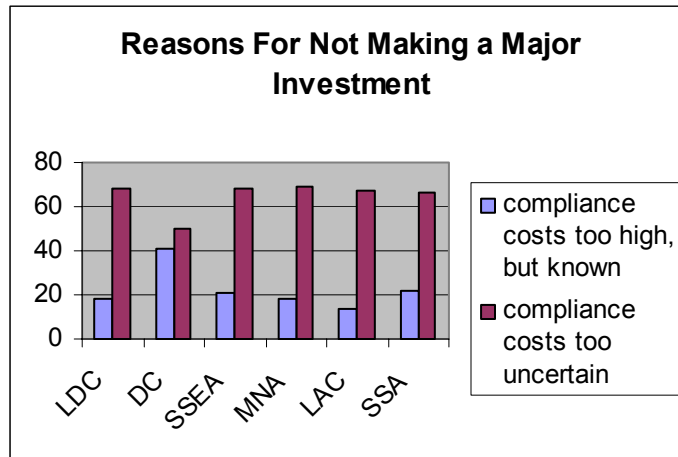
## How does uncertainty affect behavior?

### Example, continued

- If you get in now, expected profits for the next two years are  $.5*(150+150) + .5*(-100-100) = 50$
- If you wait a year and then make the optimal decision, profits for the next two years are  $0 + .5(150) + .5(0) = 75$ .

Policy regime	Period 1	Period 2
<i>Favorable</i>	150	150
<i>Unfavorable</i>	-100	-100

## Uncertainty as an Investment Deterrent



## Comments on writing assignment 1

### Things to work on

- Establish the main objectives or messages of the paper in the opening paragraph. Save details for later.
- Keep each paragraph focused on a single theme, and establish that theme with the opening sentence.
- When paragraphs treat similar material, introduce them sequentially. Sometimes it is helpful to use subheadings.

# Comments on writing assignment 1

## Things to work on, continued

- When facts are introduced, put them in context. Are the statistics lower or higher than one would expect? Why?
- Bring the themes of the paragraphs into a coherent economic story.
  - Try to organize the story around models familiar from the class.
  - It's fine to be speculative, or to make the point that models *don't* work; just try to keep it analytical.
- Cite sources properly, and use proper formatting for the list of references.