Models as Parables: The Example of Money

E. Maskin

Newton Institute, Cambridge
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- will illustrate point by example of *money*

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- can put money in artificially, but serves no useful function

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$$(x_A, x_B) \succsim (x'_A, x'_B)$$

$$\updownarrow$$

$$u(x_A, x_B) \geq u(x'_A, x'_B) \qquad u = \text{utility function}$$

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  - nowhere for it to go

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- require each consumer to return £10 at end

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- consumer can trade bananas for apples at rate p_A / p_B
- i.e., barter will suffice

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  - allows consumer to transfer wealth from present to future

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$u(x_t, x_{t+1}) = v(x_t) + v(x_{t+1})$ x_t = apple consumption in period t

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- if $v(x_t) = \sqrt{x_t}$, then $u(1,0)=1$

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  – can transfer wealth from one period to next

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- if had some other long-lived asset (e.g., land), wouldn't need money

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- as Jevons pointed out: barter requires *double coincidence of wants*

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- even if she doesn't want apples herself, she could always sell them

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  - I will foist bad apples off on her

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  - adverse selection

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- device for overcoming adverse selection

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- *T* periods in which exchange occurs

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  - except in unlikely event of double coincidence of wants

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