Money as a medium of exchange

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Trade between people

People are social creatures

We cannot do everything ourselves

We trade with each other

Barter

Exchange of goods for other goods

Barter - problem

Double coincidence of wants

A has a goat for sale, wants a sheep

B has a sheep for sale, wants a goat

A and **B** meet - they trade

Barter - problem

Double coincidence of wants

A has a goat for sale, wants a sheep

B has a sheep for sale, wants a cow

A and **B** meet - no trade!

Bottom line

Barter: I want your goat. Will you take my sheep?

Money: I offer you $ for your goat. I don't care if you do or do not want to buy my sheep.

Money way more efficient!

Intrinsic value not key

Kiyotaki & Wright (1986), "On Money as a Medium of Exchange", *Journal of Political Economy*

trust $\rightarrow$ positive value

KW model

Three types, meeting randomly

- Butcher: has meat, wants raisins
- Baker: has bread, wants meat
- Farmer: has raisins, wants bread

No "double coincidence of wants"

Frictions

Storage costs

$$\infty = c_{meat} > c_{bread} > c_{raisins} > 0$$

Exchange of goods incurs a small cost

Random meetings

$\infty = C_{meat} > C_{bread} > C_{raisins} > 0$

Butcher meets baker
- BA wants meat, BU raisins
- $C_{bread} < C_{meat}$
- trade

Random meetings

$\infty = C_{meat} > C_{bread} > C_{raisins} > 0$

Baker meets farmer
- F wants bread, BA meat
- $C_{raisins} < C_{bread}$
- trade

Random meetings

$\infty = C_{meat} > C_{bread} > C_{raisins} > 0$

Farmer meets butcher
- F wants bread, BU raisins
- $C_{raisins} < C_{meat}$
- no trade (F doesn't want to!)

Money

$C_{raisins} > C_{money} > 0$

Half of each type has money

But money has no intrinsic value

Two outcomes

1. Autarky

2. Trade

Equilibrium with autarky

Same as with barter

Money is worthless

Nobody wants it

Never used in exchange

Equilibrium with trade

People believe that money has value

Equilibrium with trade

$C_{raisins} > C_{money} > 0$

F w/out money meets BU w/ money
- $C_{money} < C_{raisins}$
- trade - F takes money
- F *trusts* that BA will accept it

Trust $\rightarrow$ positive value

I accept your token in exchange for my good, because I trust that my supplier will accept that token from me.

Fiat money

"Fiat lux" = "let there be light"

God

"Fiat money" = "let there be money"

Government

Intrinsic value of USD

Without U.S. gov't - none

U.S. gov't ensures demand for $\$ > 0$

TAXES

Features of good money

scarce   Easy to store

difficult to forge   Divisible

Easy to trade