

The Christmas Eve Caper



Our Task

- We have talked about
 - Money Supply
 - Money Demand
 - The demand for real money balances

Our Task

- We have talked about
 - Money Supply
 - Money Demand
 - The demand for real money balances
- Now, lets put this all together

Assumptions

- Assume
 - The only form of money is cash.
 - All assets and liabilities are denominated in real terms.

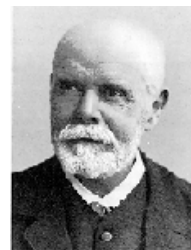
Santa Claus

- Sneaks into the Bureau of Printing and Engraving, steals enough un-circulated bills to double the money supply.
- Gives everyone enough new cash to double their money holdings



The Next Morning

- You are the auctioneer
 - Modeled after Leon Walras



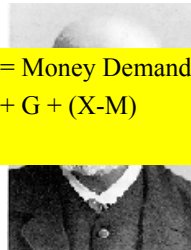
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 - You set P , the overall price level and r , the interest rate.



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$$\text{Money Supply} = \text{Money Demand}$$

$$Y = C + I + G + (X - M)$$

The Goods Market

$$Y_S = AK^\alpha L^{1-\alpha}$$

$$Y_D = C + I + G + (X - M)$$

$$Y_D > Y_S$$

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- Solutions:
 - Raise P → Lowers C
 - Raise r → Lowers C and I

Money Market

- While money demand is up, the supply effect dominates.

$$M_R^D < \frac{M_N^S}{P}$$

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- Raise P .

$$m_{i,t}^d = \xi \frac{1+r_N}{r_N} c_{i,t}$$

Money Market

- While money demand is up, the supply effect dominates.

$$M_R^D < \frac{M_N^S}{P}$$

- Raise P .
- Lower r

$$m_{i,t}^d = \xi \frac{1+r_N}{r_N} c_{i,t}$$

The Solution

- Double P
- Keep r unchanged

The Goods Market

No change in wealth, ergo no change in consumption.

$$Y_D = Y_S$$

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Conclusions

- Memo to Auctioneer: take the rest of the day off.
- This is not the first Christmas present that didn't work out the way you expected.

The Quantity Theory of Money

- The price level changes in proportion to the money supply.
- Changes in the money supply has no further effect.

Money is neutral.



David Hume

End

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