No paper just questions

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Numerical Exercise Q1: Numerical Exercise 11 Carlotta Crone withdraws $500 from her checking account and deposits it in a two-year CD.

How does this transaction affect M1 and M2?

M1 is defined as narrow money, which includes coins, notes, or any other equivalents of money that that are in circulation and can easily be converted into cash. M2 includes all money defined as M1 and short-term time deposits in financial institutions and less than a day money market funds. A checking account is an example of a measure of money supply that falls under the definition of M1 while a certificate of discount (CD) account falls under M3. The above transaction will decrease M1 and increase M2 respectively. M1 will decrease because of withdraw of the money supply and M2 will increase because of the short-term deposit made during the transcation.

Q2: Numerical Exercise 11

If the rate of discount is 20 percent,

Would you rather receive $100 today or $120 in one year?

$PV = [1/(1+ r)t]$ At where ,

R= 20%

T= 1 year

A= 120, then

$PV= [1/(1+0. 2)1] 120$

PV= 100

I would take the $100 today because of the time value for money.

b) Would you rather receive $205 today or $240 in one year?

$PV = [1/(1+ r)t]$ At where ,

R= 20%

T= 1 year

A= 240, then,

PV= [1/(1+0. 2)1] 240

PV = 200

I would take the $205 today because of the time value for money. In one year, the amount would have increased beyond $240.

c) Would you rather receive $500 in one year or $610 in two years?

PV = [1/(1+ r)t] At where ,

R= 20%

T= 1 year

A= 610, then,

PV= [1/ (1+0. 2)2] 610

PV = 423

PV = [1/(1+ r)t] At where ,

R= 20%

T= 1 year

A= 500, then,

PV= [1/(1+0. 2)1] 500

PV= 416

I would rather take the 500 dollars after one year because their present values are nearly the same. That means that their rate of interest is nearly the same. In one year, they will have generated nearly the same interest. Because of time value for money, I would rather take $500 after one year.