

The Basics of the Demand for Money

Bank Balance	0 Trips	One Trip	Two Trips	Five Trips
Monday	\$40	\$70	\$80	\$90
Tuesday	\$40	\$70	\$80	\$80
Wednesday	\$40	\$70	\$60	\$70
Thursday	\$40	\$40	\$60	\$60
Friday	\$40	\$40	\$40	\$50
Saturday	\$40	\$40	\$40	\$40
Daily Balances	\$240	\$330	\$360	\$390
Interest (0.0015 x Daily Balances)	\$ 0.360	\$ 0.495	\$ 0.540	\$ 0.585
Trip Cost	\$ 0.000	\$ 0.060	\$ 0.120	\$ 0.300
Net Earnings	\$ 0.360	\$ 0.435	\$ 0.420	\$ 0.285

A Simple Example

- \$100 a week income
- Plan to Spend \$10 a day (Monday to Sunday)
- Interest Rate 0.15% per day
- Cost of each bank transaction (both bank charge and shoe leather charge) is 6¢

Four Strategies

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Four Strategies

Alternative Cash Management Strategies				
Bank Balance	0 Trips	One Trip	Two Trips	Five Trips
Monday	\$ 40	\$ 70	\$ 80	\$ 80
Tuesday	\$ 40	\$ 70	\$ 80	\$ 80
Wednesday	\$ 40	\$ 70	\$ 60	\$ 70
Thursday	\$ 40	\$ 40	\$ 60	\$ 60
Friday	\$ 40	\$ 40	\$ 40	\$ 50
Saturday	\$ 40	\$ 40	\$ 40	\$ 40
Daily Balances	\$ 240	\$ 330	\$ 360	\$ 390
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The Demand for Money, Day by Day

Monday	\$ 30	Wednesday	\$ 10	Friday	\$ 20
Tuesday	\$ 20	Thursday	\$ 30	Saturday	\$ 10
Average Daily Balance					\$ 20

\$20

Prices Double

Prices Double

Bank Balance	0 Trips	One Trip	Two Trips	Five Trips
Monday	\$ 80	\$ 140	\$ 160	\$ 180
Tuesday	\$ 80	\$ 140	\$ 160	\$ 160
Wednesday	\$ 80	\$ 140	\$ 120	\$ 140
Thursday	\$ 80	\$ 80	\$ 120	\$ 120
Friday	\$ 80	\$ 80	\$ 80	\$ 100
Saturday	\$ 80	\$ 80	\$ 80	\$ 80
Daily Balances	\$ 480	\$ 660	\$ 720	\$ 780
Interest (0.0015 x Daily Balances)	\$ 0.720	\$ 0.990	\$ 1.080	\$ 1.170
Trip Cost		\$ 0.120	\$ 0.240	\$ 0.600
Net Earnings	\$ 0.720	\$ 0.870	\$ 0.840	\$ 0.570

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Conclusion: No change in Cash Management Strategy, but doubling of demand for Money

Implications

- The demand for **real money balances**, measured in terms of purchasing power, does not change with the price level.

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- The demand for **real money balances**, measured in terms of purchasing power, does not change with the price level.
- The demand for **nominal money balances**, measured in terms of pictures of George Washington, changes in direct proportion to the price level

Your Income Doubles

- Income Doubles
- A trip to the bank may either
 - Remain at 6¢
 - Double to 12¢

A Doubling of Income

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Daily Balances	\$ 480	\$ 660	\$ 720	\$ 780
Interest (0.0015 x Daily Balances)	\$ 0.720	\$ 0.990	\$ 1.080	\$ 1.170
Trip Cost (at 6¢)		\$ 0.060	\$ 0.120	\$ 0.300
Net Cost	\$ 0.720	\$ 0.930	\$ 0.960	\$ 0.870
Trip Cost (at 12¢)		\$ 0.120	\$ 0.240	\$ 0.600
Net Earnings	\$ 0.720	\$ 0.870	\$ 0.840	\$ 0.570

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The Demand for Money

Optimal Cash Balances With 12¢ Trip Cost			
Monday	\$ 60	Wednesday	\$ 20
Tuesday	\$ 40	Thursday	\$ 60
Average Daily Balance		Friday	\$ 40
		Saturday	\$ 20
		Average Daily Balance	
		\$ 40	

Optimal Cash Balances With 6¢ Trip Cost			
Monday	\$ 40	Wednesday	\$ 40
Tuesday	\$ 20	Thursday	\$ 20
Average Daily Balance		Friday	\$ 40
		Saturday	\$ 20
		Average Daily Balance	
		\$ 30	

The Demand for Money

Optimal Cash Balances With 61 Trip Cost	
Monday	\$40
Tuesday	\$20
Average Daily Balance	\$30

The demand for money rises with income, but whether it rises in proportion to income is open to debate.

Optimal Cash Balances With 61 Trip Cost					
Monday	\$40	Wednesday	\$40	Friday	\$40
Tuesday	\$20	Thursday	\$20	Saturday	\$20
Average Daily Balance					\$30

End

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