

Currency


+ Deposits

i




To calculate the amount of liquid balances (cash and deposits) needed for the entire U.S. economy, we need to know:

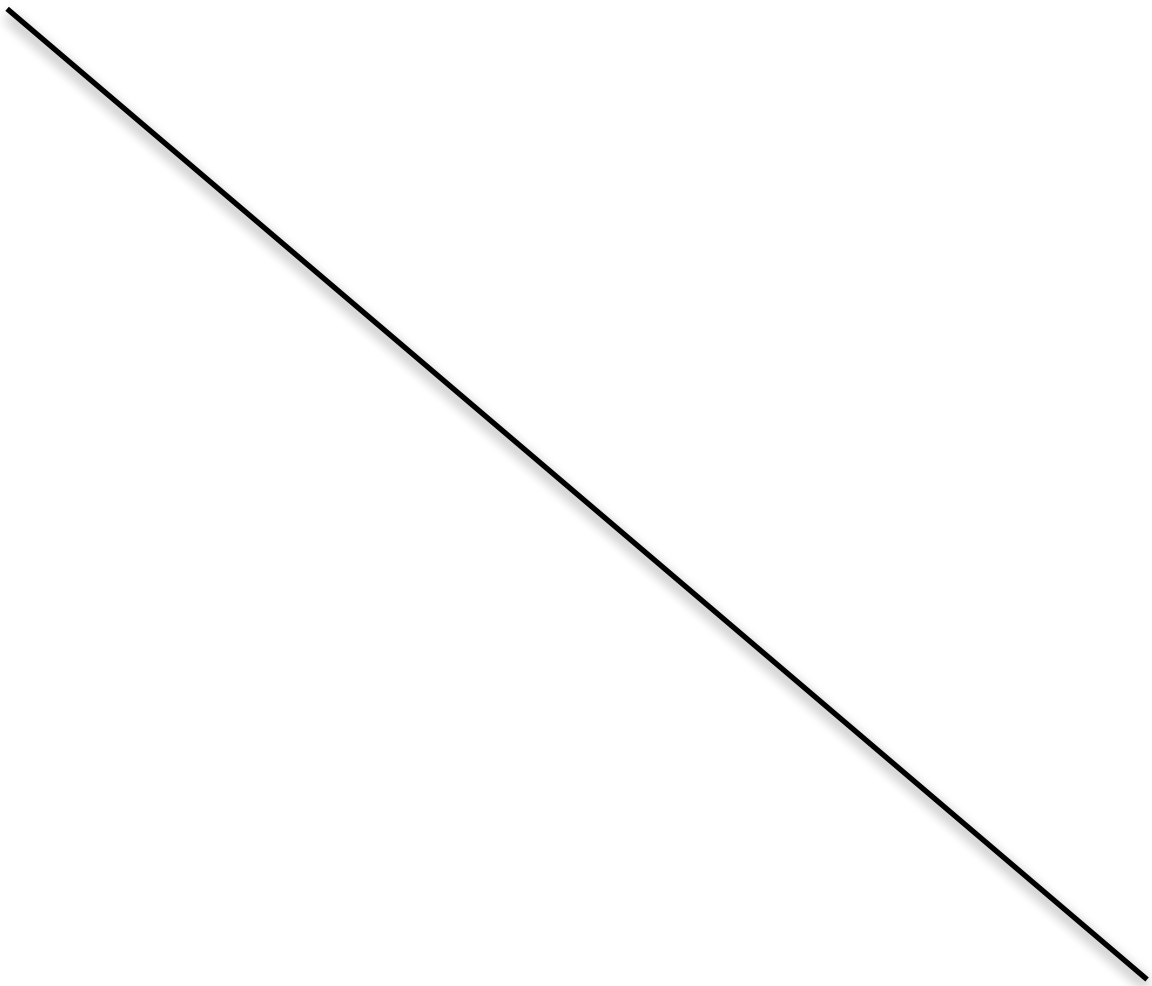
- 📌 The **prices** of all that is purchased and
- 📌 The total **number of units** purchased

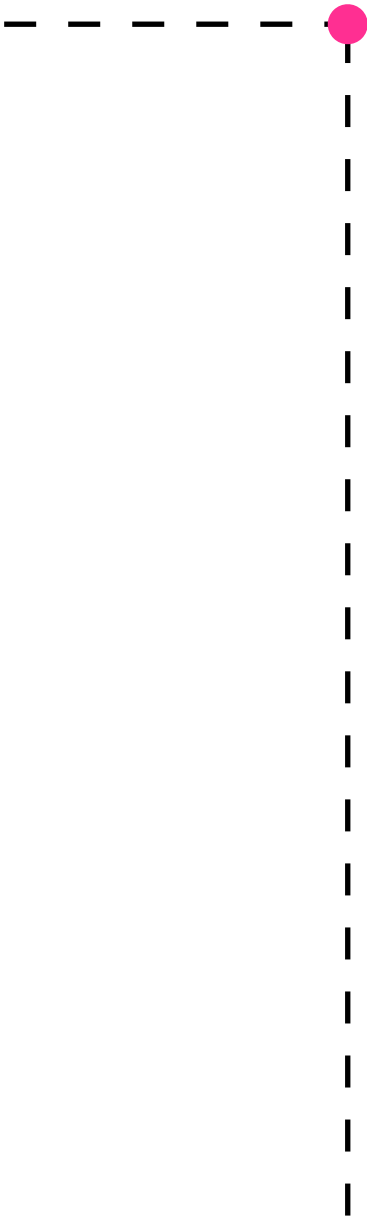


For prices
we will use
the CPI



For quantity
we will use
real GDP





$$M^d = 500$$



This line represents the need for liquid balances for a given price level (P_0) and a given GDP_0





P



















e

a

S

e











6















e

p

u

b







W









e

e





a



g

e









u





b

a



a





e

S

i_0

i_1



For all interest rates, the demand
for liquid balances will be **higher**



A rightward shift in the Demand for
Money

$$M^d(P_0, GDP, P_0)$$



$M^d(P_1, GDP_0)$





G



P











a

S

e







W

e







2



S

2











S







e

P

U

b







W









e









W

e









u





b

2



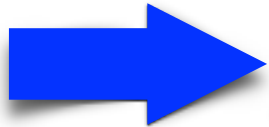
a







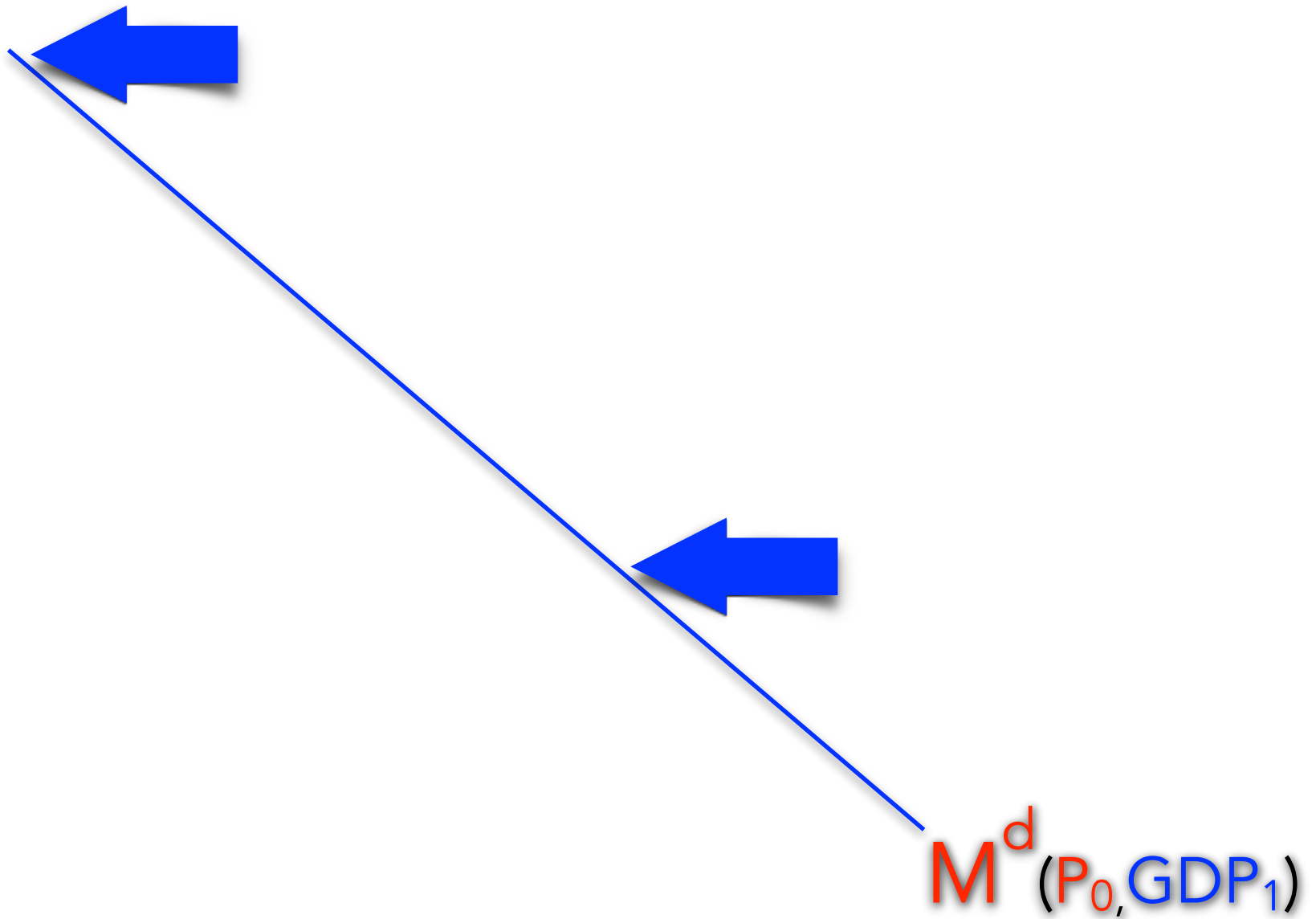
S



For all interest rates, the demand
for liquid balances will be **lower**



A leftward shift in the Demand for
Money



How much money is needed for
transactions?

If lunch is more
expensive: **price** is
\$**20**/lunch, then I
need to have
7_x**20**=\$140 in cash
or check

If I buy lunch only
5 days a week,
then I only need to
have $5 \times 15 = \$75$ in
cash or check

If **prices increase** (inflation) the public will need **larger** liquid balances

If GDP decrease (fewer transactions) the public will need lower liquid balances

How much money is needed for transactions?

If **prices increase** (inflation) the public will need **larger** liquid balances

➡ For all interest rates, the demand for liquid balances will be **higher**

➡ A **rightward shift** in the Demand for Money

If **GDP decrease** (fewer transactions) the public will need **lower** liquid balances

➡ For all interest rates, the demand for liquid balances will be **lower**

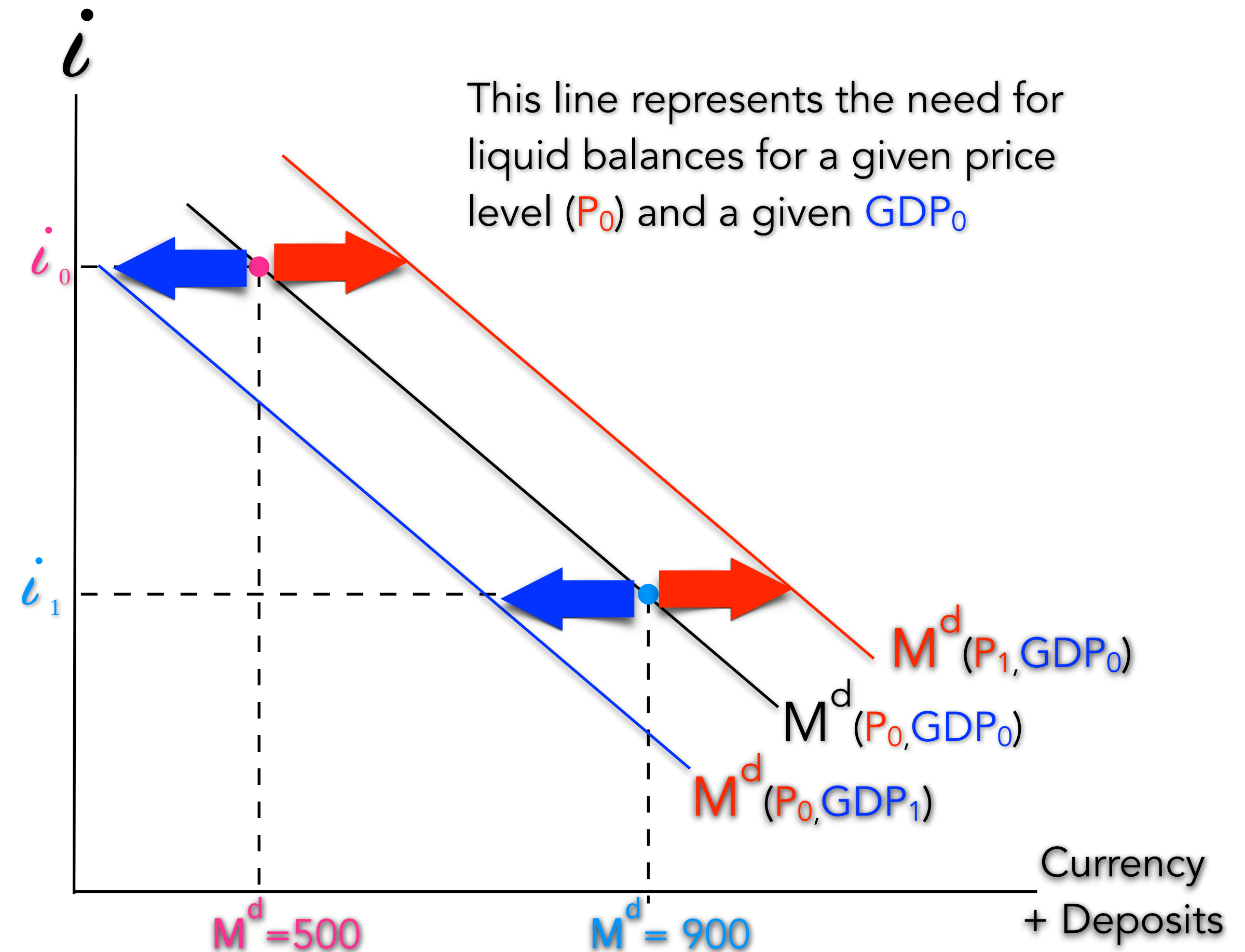
➡ A **leftward shift** in the Demand for Money

To calculate the amount of liquid balances (cash and deposits) needed for the entire U.S. economy, we need to know:

- The **prices** of all that is purchased and
- The total **number of units** purchased

For prices we will use the CPI

For quantity we will use real GDP



Understanding the Supply and Demand for Money

