Lecture #16

chapter 26

Money and Inflation

Money and Inflation: The Evidence

"Inflation is Always and Everywhere a Monetary Phenomenon" *(M. Friedman)*

Evidence

In every case when   high for *sustained period*, M growth is high
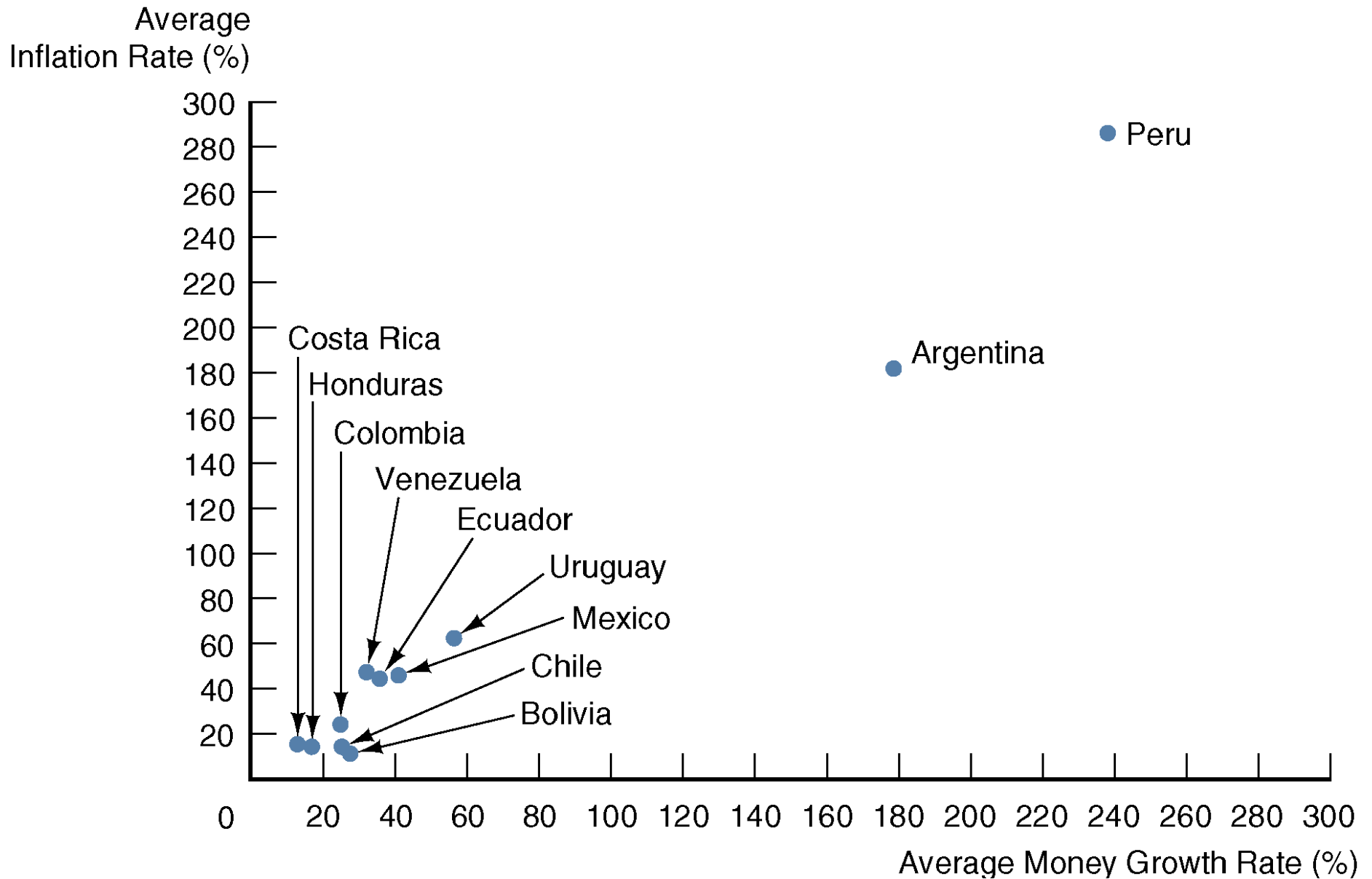
Examples:

1. Latin American inflations

2. German Hyperinflation, 1921–23

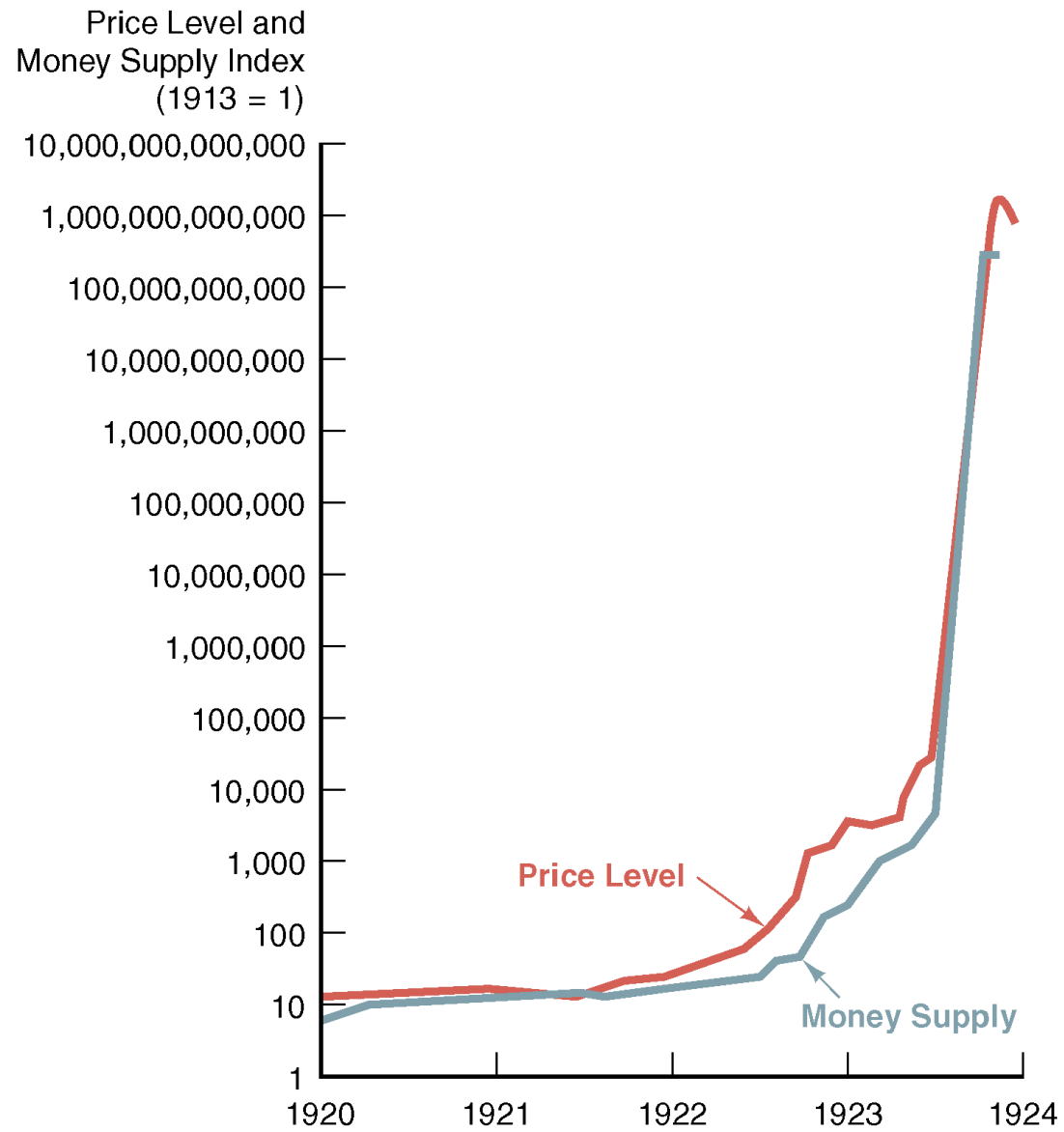Controlled experiment, particularly after 1923 invasion of Ruhr—govt prints money to pay strikers,   > 1 million %

Meaning of "inflation"

Friedman's statement uses definition of   as continuing, rapidly rising price level: Only then does evidence support it
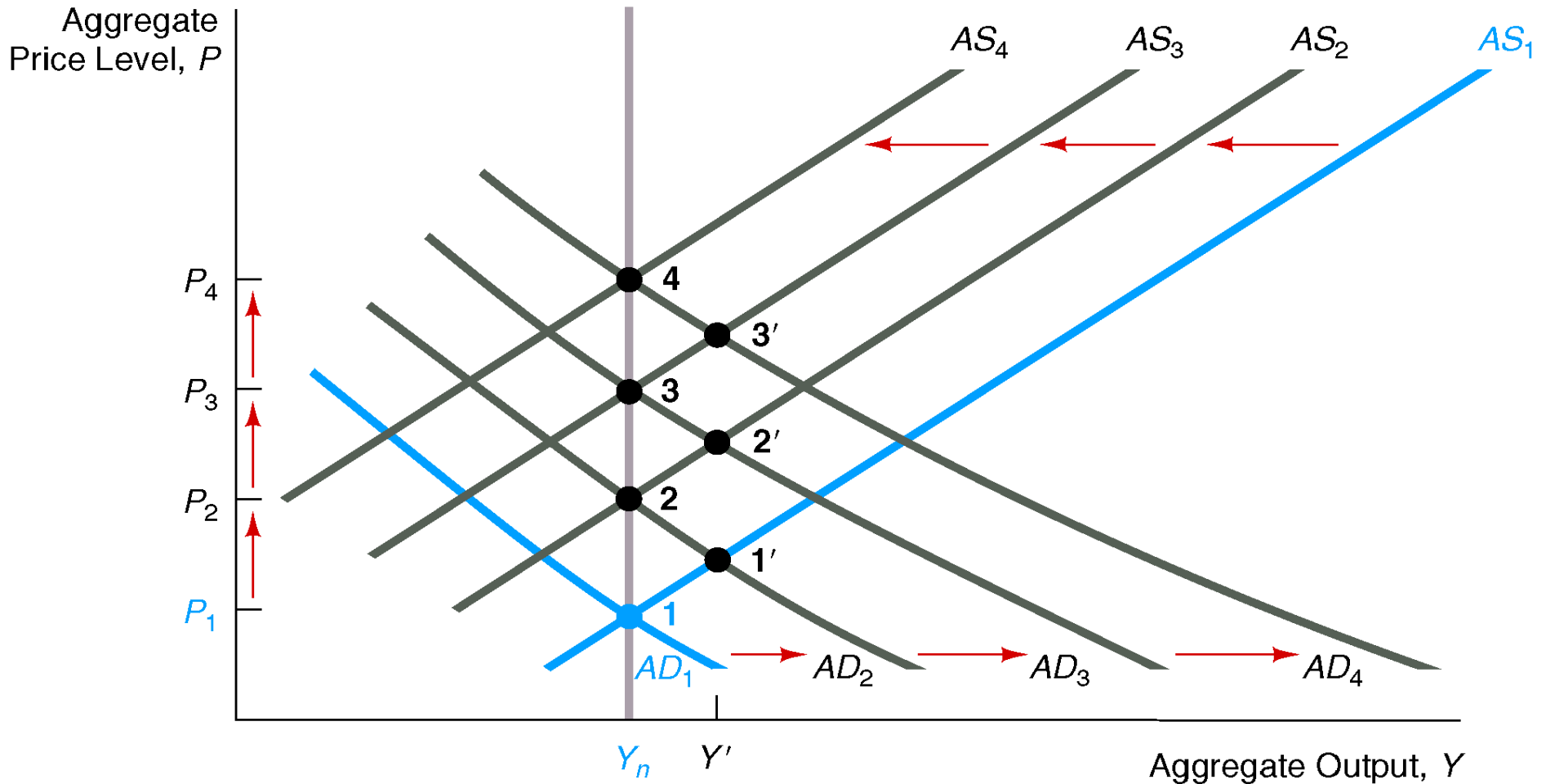
and Money Growth in Latin America

Average Inflation Rate (%) vs Average Money Growth Rate (%)

German Hyperinflation: 1921–23

Price Level and
Money Supply Index
(1913 = 1)

Response to Continually Rising M^s

Monetarist and Keynesian View

1. M continually, shifts AD to right from AD_1 to AD_2 to AD_3, etc.
2. $Y > Y_n$, wages   , AS shifts from AS_1 to AS_2 to AS_3, etc.
3. P continually rises from P_1 to P_2 to P_3, etc.: i.e., have inflation

Monetarist and Keynesian Views of

Monetarist View

Only source of *AD* shifts and   in Figure 2 can be M^s growth

Keynesian View

Allows for other sources of *AD* shifts, but same conclusion that only source of *sustained* high   is M^s growth

1. Figure 3 shows that fiscal policy without M^s growth only causes P , but not sustained

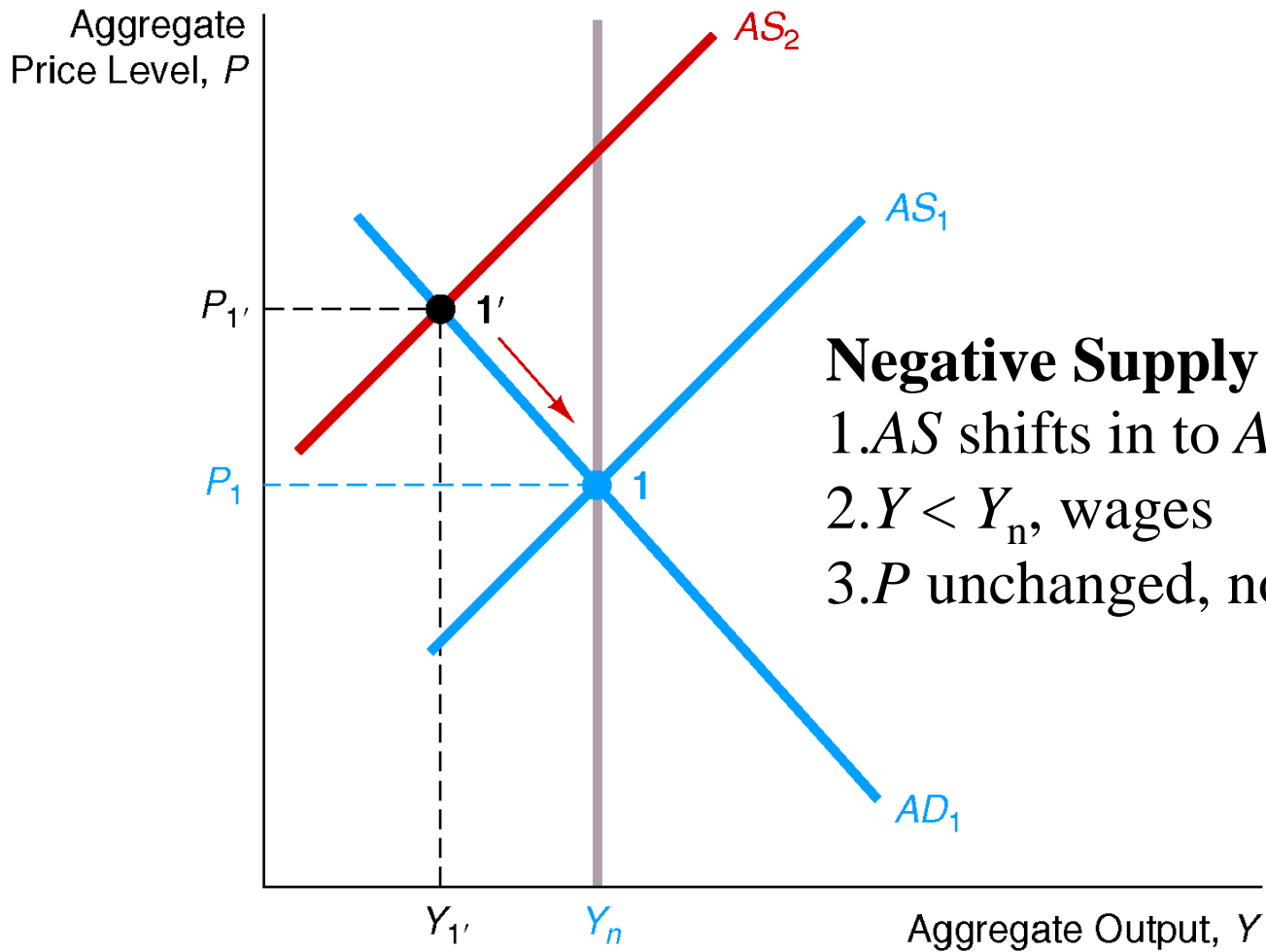2. Figure 4 shows that supply shock does not lead to sustained

Response to One-Shot Increase in *G*
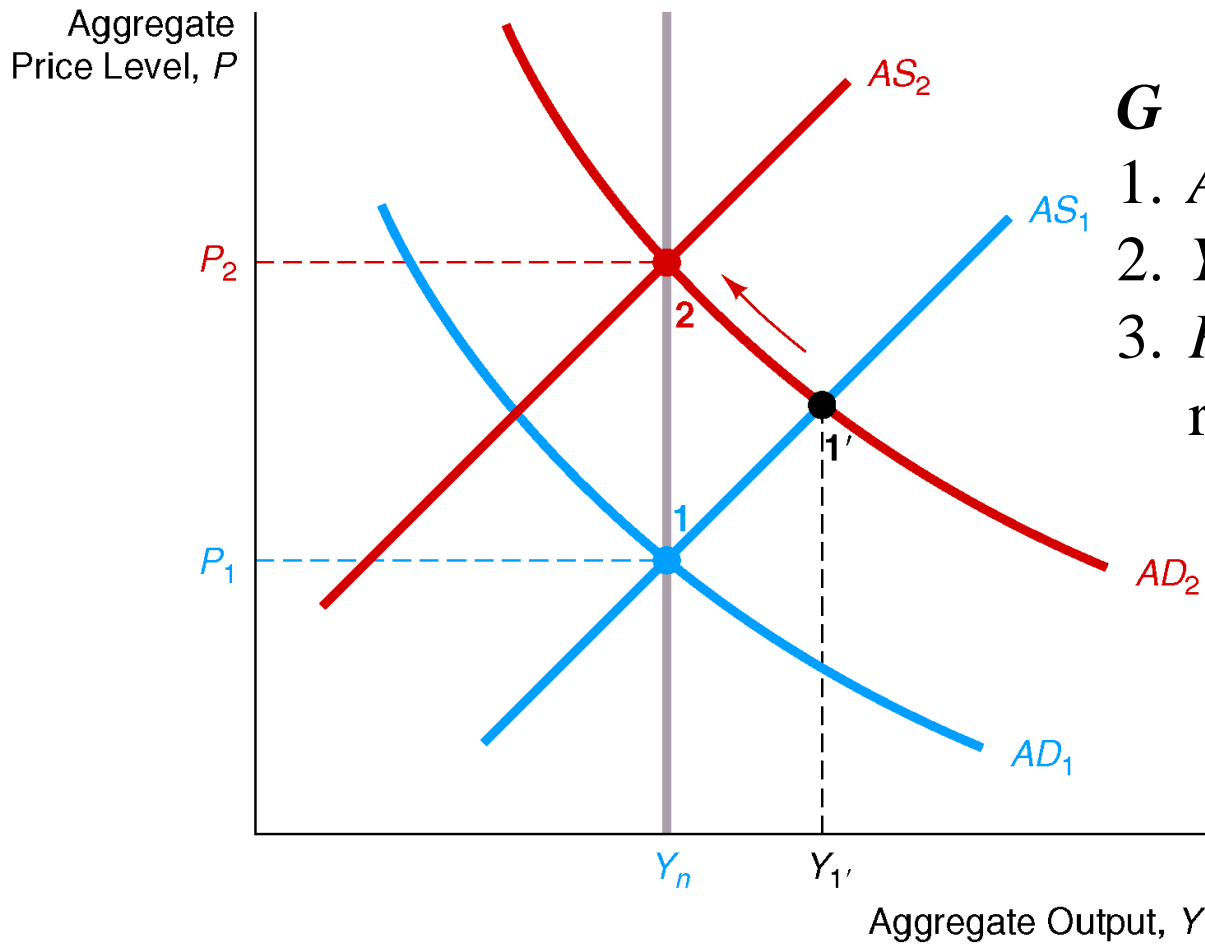
G permanently
1. *AD* shifts right to AD_2
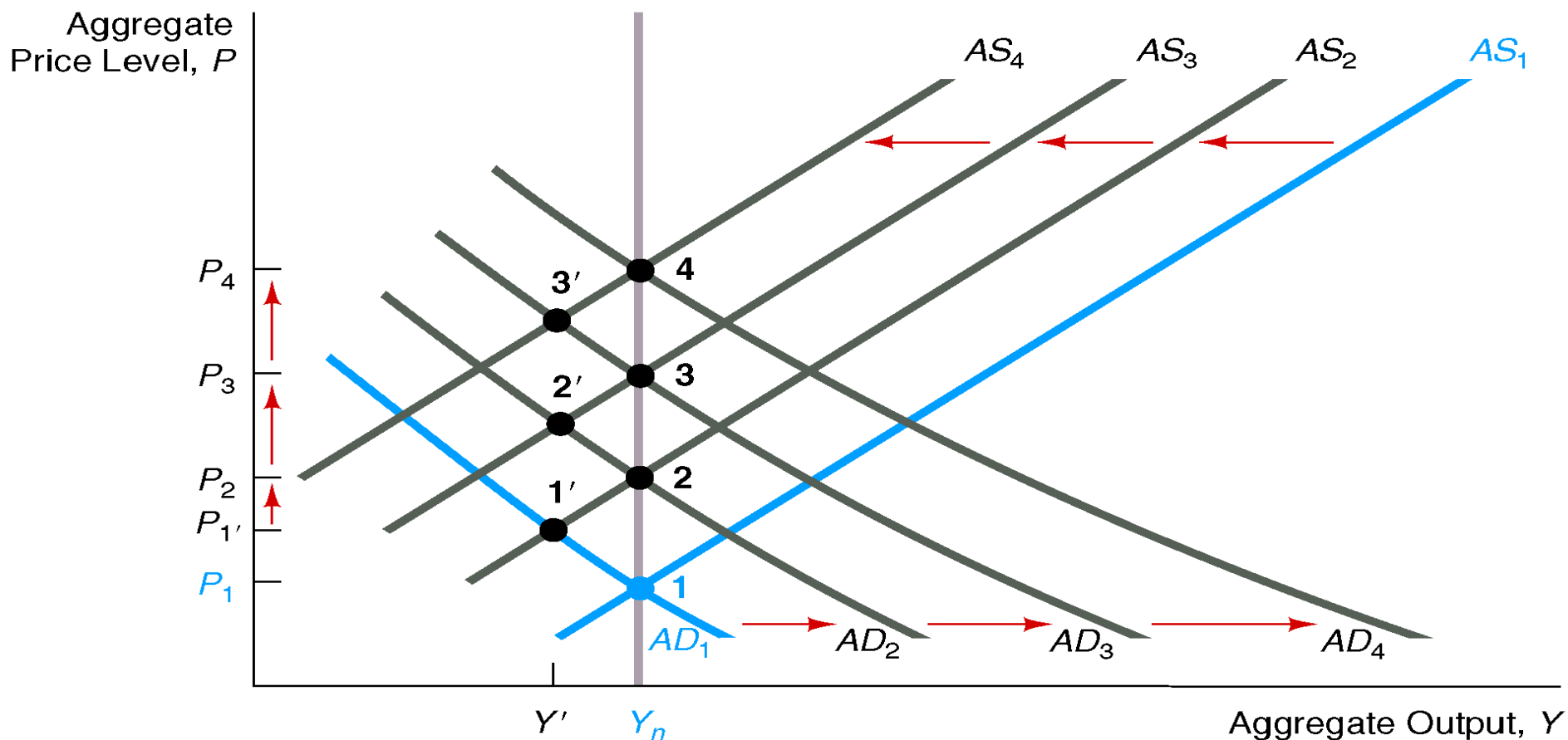2. $Y > Y_n$, *AS* shifts in to AS_2
3. *P* to P_2, but doesn't keep rising

Response to Supply Shock

Aggregate Price Level, P

AS_2

AS_1

$P_{1'}$ ⚫ 1'

P_1 1

Negative Supply Shock

1. AS shifts in to AS_2
2. $Y < Y_n$, wages   , AS shifts back to AS_1
3. P unchanged, no

AD_1

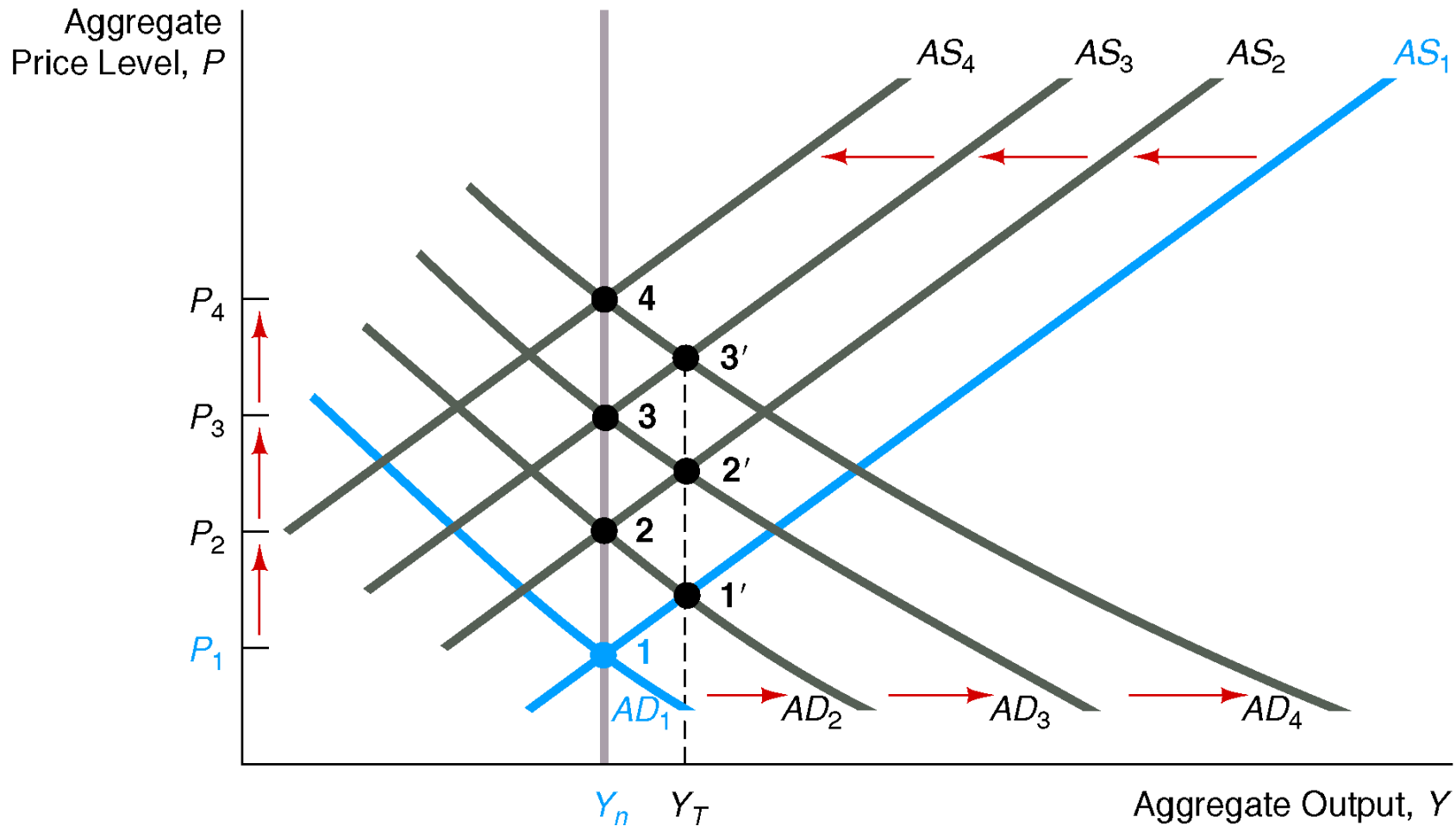$Y_{1'}$ Y_n Aggregate Output, Y

Cost-Push Inflation

High Employment Target at Y_n

1. Workers raise wages because either: want raise real wages or ^{e} high
2. AS shifts in
3. $Y < Y_n$, govt shifts AD out
4. Workers raise wages again, and go through steps 2, 3, and 4, etc.
5. P continually: i.e.. get

Demand-Pull Inflation

High Employment Target, $Y_T > Y_n$

1. $Y = Y_n < Y_T$, govt shifts AD out
2. $Y = Y_T > Y_n$, AS shifts in
3. $Y = Y_n < Y_T$, govt shift AD out, and repeat steps 2 and 3, etc.
4. P continually: i.e., get

Budget Deficits and

Government Budget Constraint

$DEF = G - T = \quad MB + \quad B$

1. Deficit financed by bonds, no effect on MB and M^s

2. Deficit not financed by bonds, MB and M^s

Financing persistent budget deficit by money creation leads to sustained

1. Deficit financed by M^s leads to AD shifts out, as in Fig 28.2

2. If deficit persists, M^s continually and get P continually, i.e.,
   as in Fig 28.2

Conclusion: Deficit , only if it is

1. Persistent

2. Financed by money creation rather than by bonds

Budget Deficits and

Budget deficits in other countries

1. Bond finance hard

2. Deficit likely to lead to money creation and
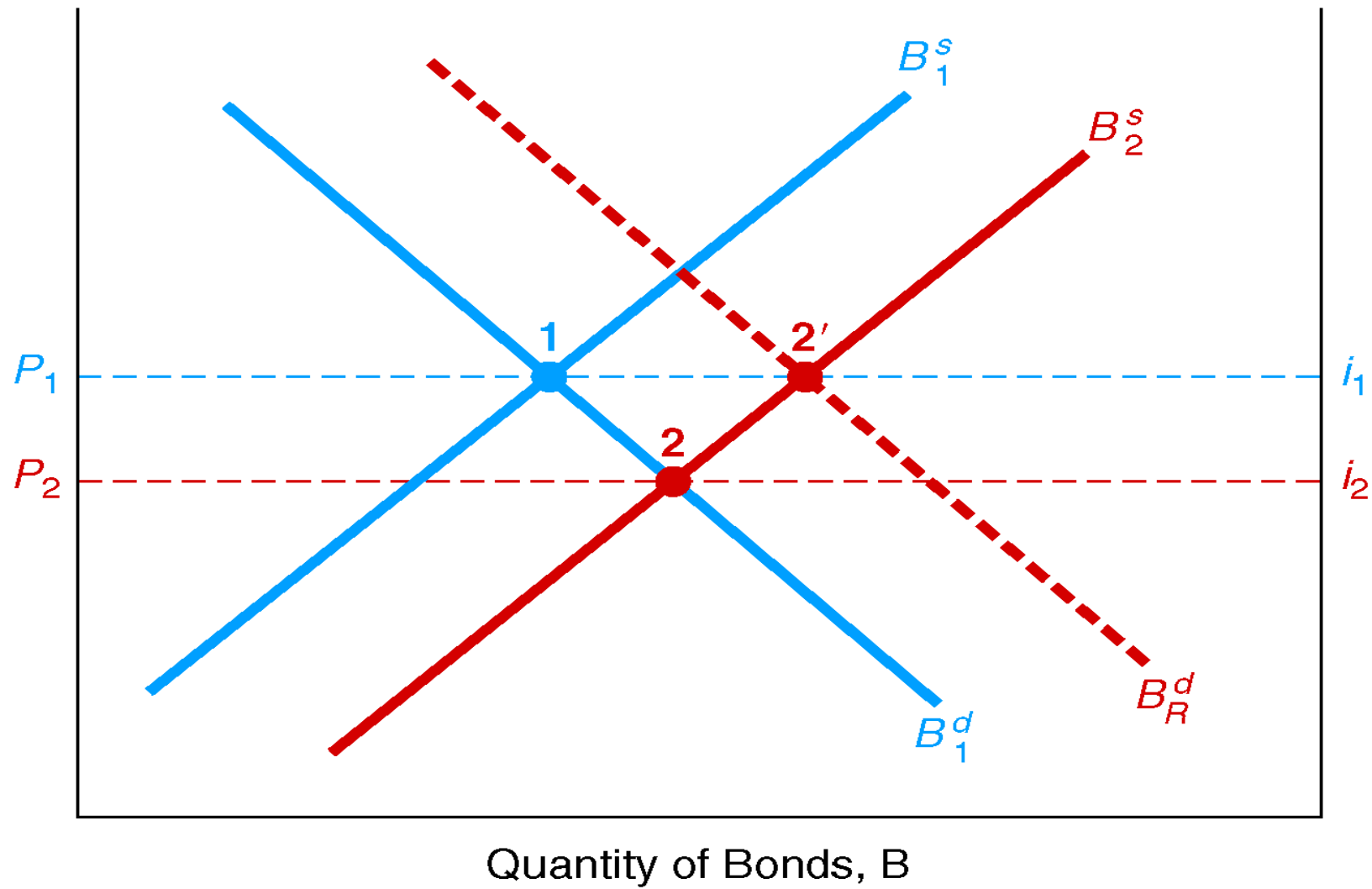
Budget deficits in U.S.

1. Large capital market, so can bond finance

2. Fed has choice whether to monetize deficit, but may be pressure to do so

3. Ricardian equivalence may mean no effect of budget deficits on interest rates

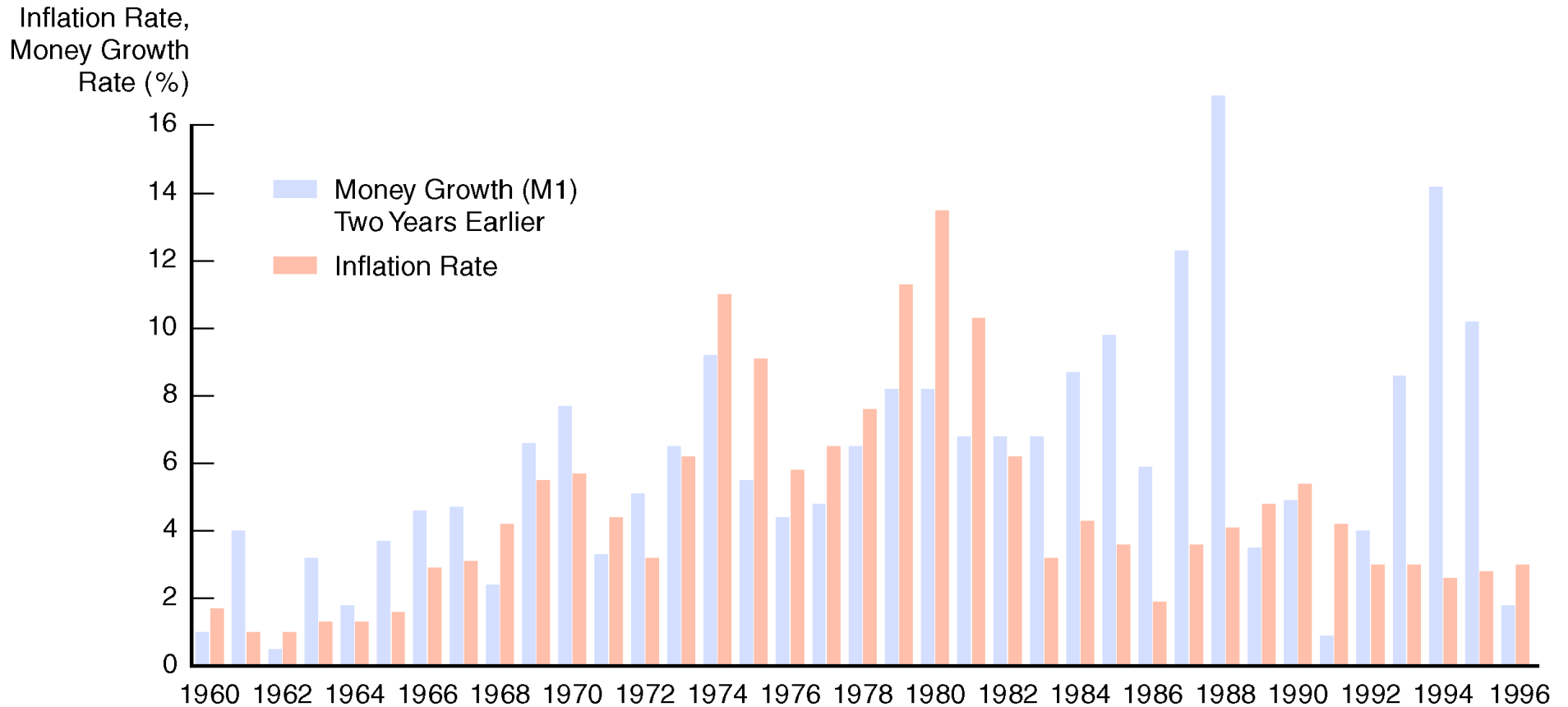*Conclusion:* Deficits not necessarily

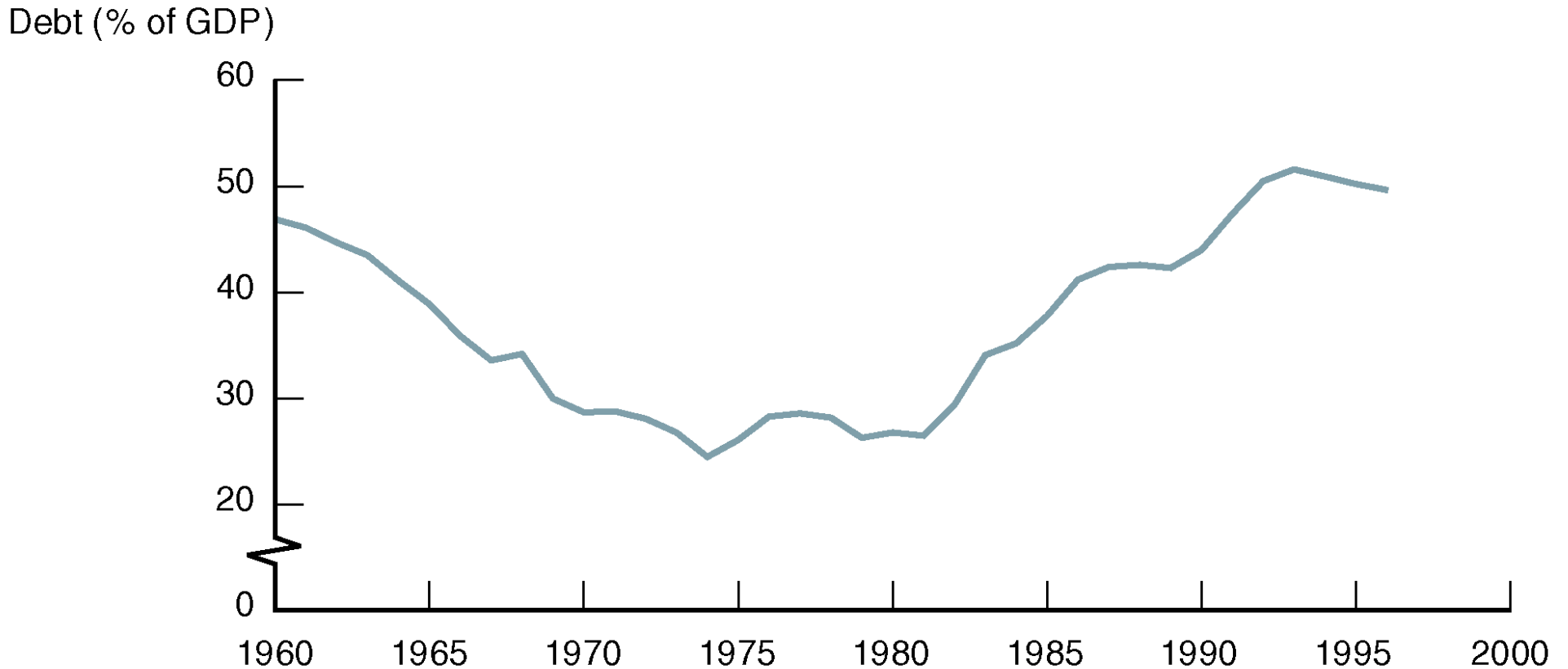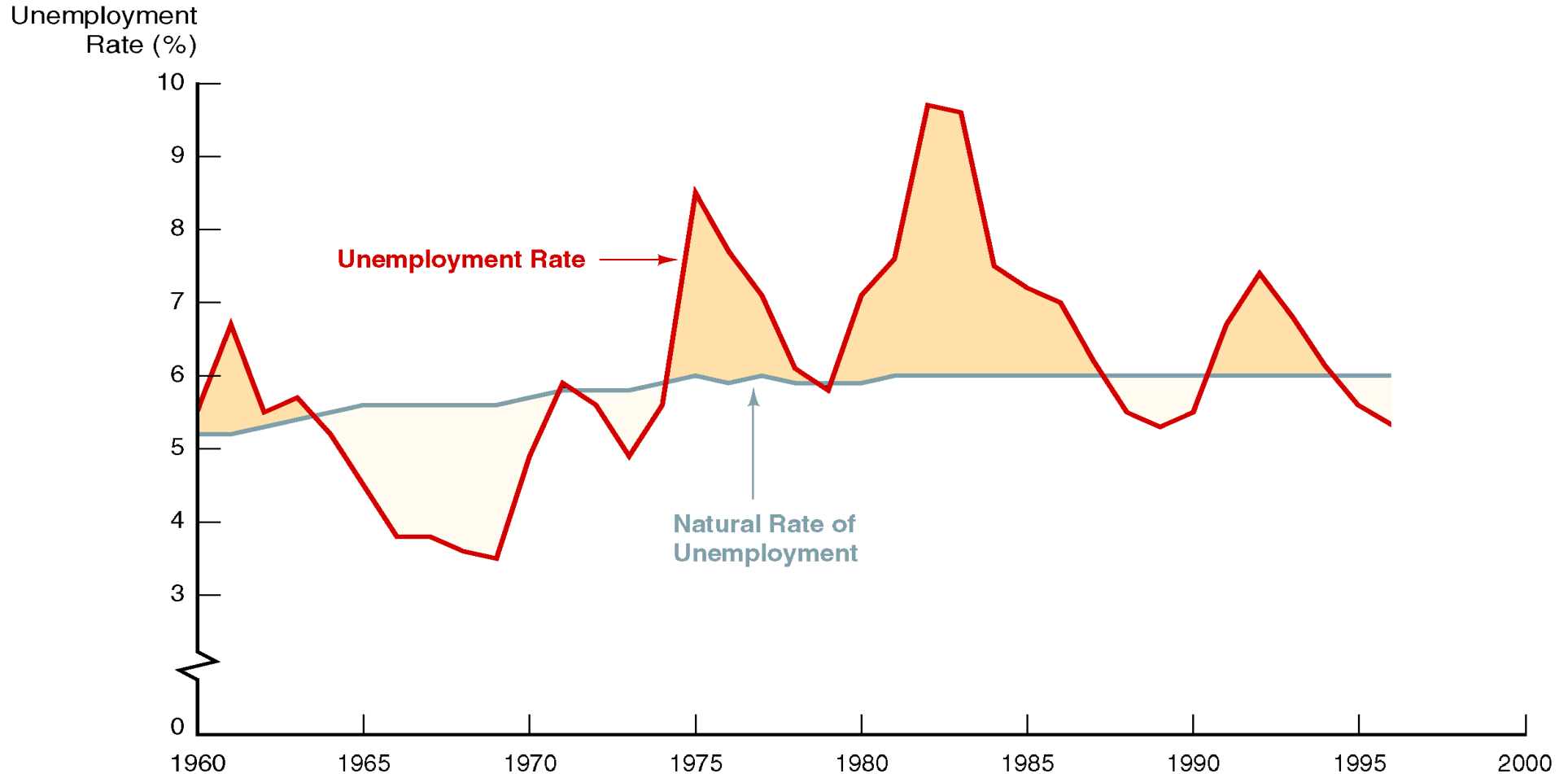# Budget Deficits and Interest Rates

Inflation and Money Growth

1. Money and inflation relationship close until 1980
2. After 1980 relationship breaks down

16-14

Government Debt to GDP

Debt (% of GDP)

1. Debt/GDP falls 1960–80
2. Deficits can't be source of money creation and

Unemployment and the Natural Rate of Unemployment

High employment targets source of   1960-80

1. $U < U_n$ 1965-73 suggests demand-pull , with $Y_T > Y_n$
2. $U > U_n$ 1974-80 suggests cost-push
3. $U > U_n$ and   after 1980 result of Volcker deflation

Activist/Nonactivist Debate

Lags in Shifting *AD*

1. Data lag
2. Recognition lag
3. Legislative lag
4. Implementation lag
5. Effectiveness lag

Case for Activist Policy:

If self correcting mechanism is slow, $U > U_n$ for long time

1. Doing nothing has high cost
2. *AS* shift little, even after long lags in shifting *AD*

Conclusion: Should shift *AD* to AD_2 to get to point 2 in Figure 10

Case for Nonactivist Policy

If self correcting mechanism is fast

1. Doing nothing has low cost
2. *AS* shifts to AS_2 before *AD* shifts to AD_2
3. Sequence: 1', 1, 2',2
4. Undesirable effect: *Y* and *P* fluctuate

Activist/Nonactivist Debate

Case for nonactivist policy stronger if expectations of policy matter

1. Economy won't stop at point 2
2. Wages   , *AS* in, $Y < Y_n$, *AD* shifted out, etc.:
3. Also less likely for wage push that gets us to 1'

Quite plausible that expectations of policy matter to wage setting

Rules Vs Discretion

1. Nonactivists advocate policy rule to keep *AD* from fluctuating:
   Example: Monetarist constant-money-growth-rate-rule
2. Credibility of nonaccommodating policy helps avoid wage push and helps prevent   and unemployment
   Example:
   1. 1979 Fed had low credibility and anti-   policy was costly
   2. Credibility earned by 1983
   3. When money growth   1983, little rise in wages and

Choice Between Activist and Nonactivist Policy