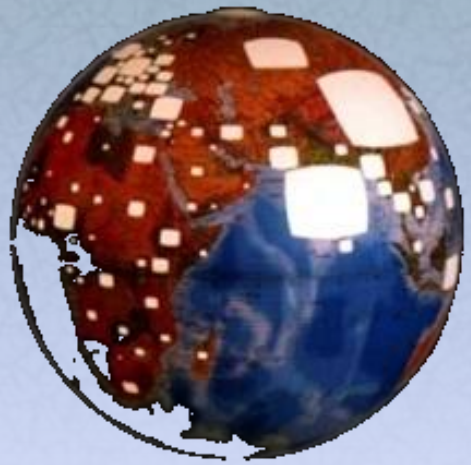


Fiscal Policy Part I

Much fiscal policy is implemented, not through spending increases, but through tax credits and other so-called tax expenditures. The markets should respond to them as they do spending cuts, with little contraction in economic activity.

Alan Greenspan

Taxes and Spending

- In 1902, the federal government employed fewer than 350,000 people and spent about $650 million.
- Today, the federal government employs over 4 million and spends over $ 2 trillion.

Government Revenue

- Government expansion started with the 16th Amendment to the US Constitution (1913) which extended the taxing power to *incomes*.
- Today, the federal government collects over $2 trillion a year in tax revenues.

Government Expenditure

- Government spending *directly* affects aggregate demand.
  - **Aggregate demand** is the total quantity of output demanded at alternative price levels in a given time period, ceteris paribus.

Purchases vs. Transfers

- Government purchases are part of aggregate demand, income transfers are not.
- **Income transfers** are payments to individuals for which no current goods or services are exchanged.

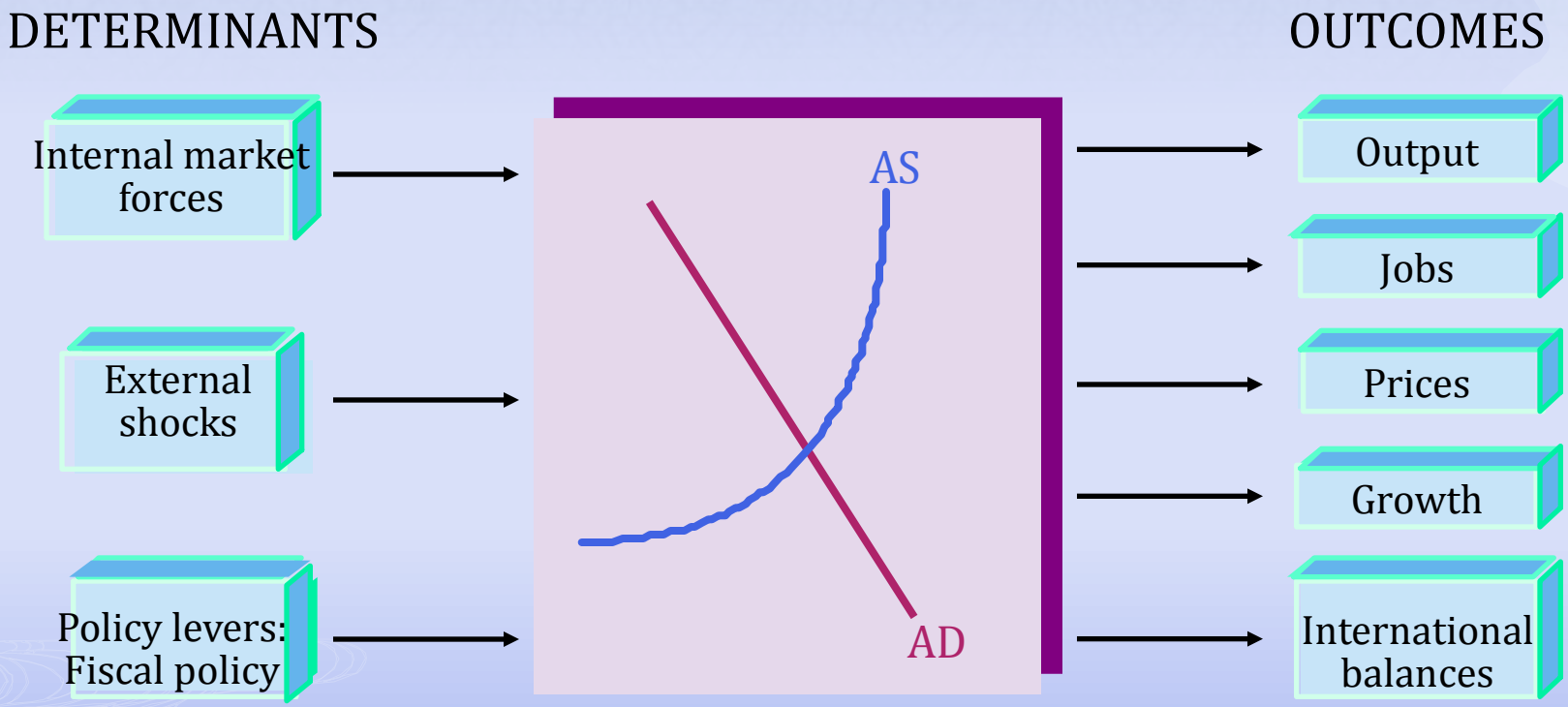
Fiscal Policy

- The federal government can alter aggregate demand by:
  - purchasing more or fewer goods and services
  - raising or lowering taxes
  - changing the level of income transfer

Fiscal Policy

- From a macro perspective, the federal budget is a tool that can change aggregate demand and macroeconomic outcomes.
  - **Fiscal policy** is the use of government taxes and spending to alter macroeconomic outcomes.

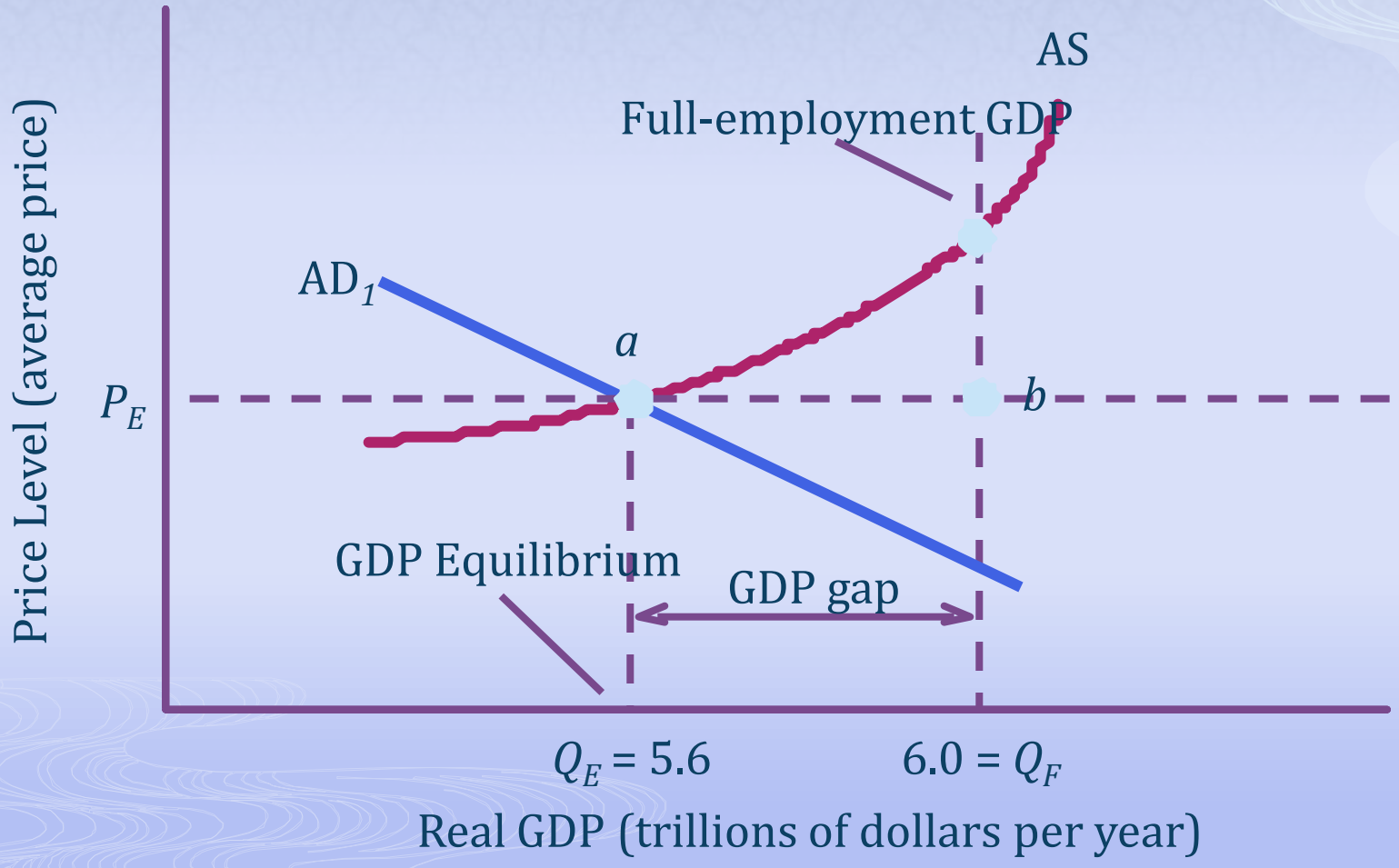
Diagram: Fiscal Policy



Fiscal Stimulus

- Suppose the economy is experiencing a recessionary GDP gap of $400 billion.
  - The **recessionary GDP gap** is the difference between full-employment GDP and equilibrium GDP.

Chart: The Policy Goal



Keynesian Strategy

- From a Keynesian perspective, the way out of recession is to get someone to spend more on goods and services.
  - A **fiscal stimulus** is tax cuts or spending hikes intended to increase (shift) aggregate demand.

Keynesian Strategy

- Two strategic policy questions must be answered:
  - By how much do we want to shift the AD curve to the right?
  - How can we induce the desired shift?

The Fiscal Target

If the GDP gap is $400 billion, why not just increase AD by that much?

The Naive Keynesian Model

- An increase in AD by $400 billion will achieve full employment in the naive Keynesian policy.
- An increase in aggregate demand by the amount of the GDP gap will achieve full employment only if the aggregate supply curve is horizontal.

Price Level Changes

- When the AD curve shifts to the right, the economy moves up the AS curve, not horizontally to the right.
- Both real output and prices change.

Price Level Changes

Shifting (increasing) aggregate demand by the amount of the GDP gap will achieve full employment only if the price level doesn't rise.

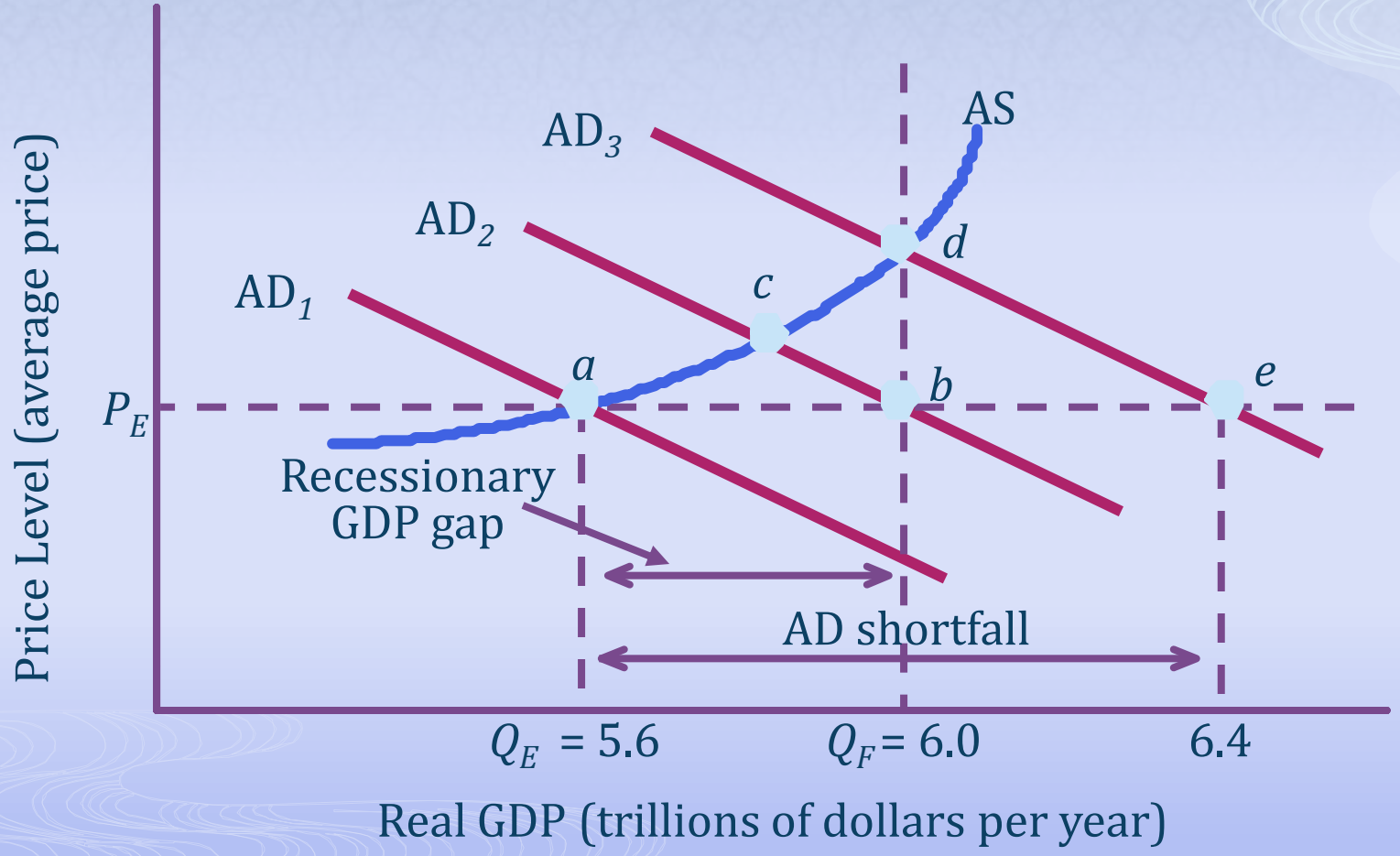
The AD Shortfall

So long as the AS curve slopes upward, AD must increase by more than the size of the recessionary GDP gap to achieve full employment.

The AD Shortfall

- The **AD shortfall** is the amount of additional aggregate demand needed to achieve full employment after allowing for price level changes.
- The AD shortfall is the fiscal target.

Chart: The AD Shortfall



More Government Spending

Increased government spending is a form of fiscal stimulus.

Multiplier Effects

Every dollar of new government spending has a multiplied impact on aggregate demand.

Multiplier Effects

- How much of a boost the economy gets depends on the value of the multiplier.
  - The **multiplier** is the multiple by which an initial change in aggregate spending will alter total expenditure after an infinite number of spending cycles.

Multiplier Effects

The total spending change equals the multiplier times the new spending injections.

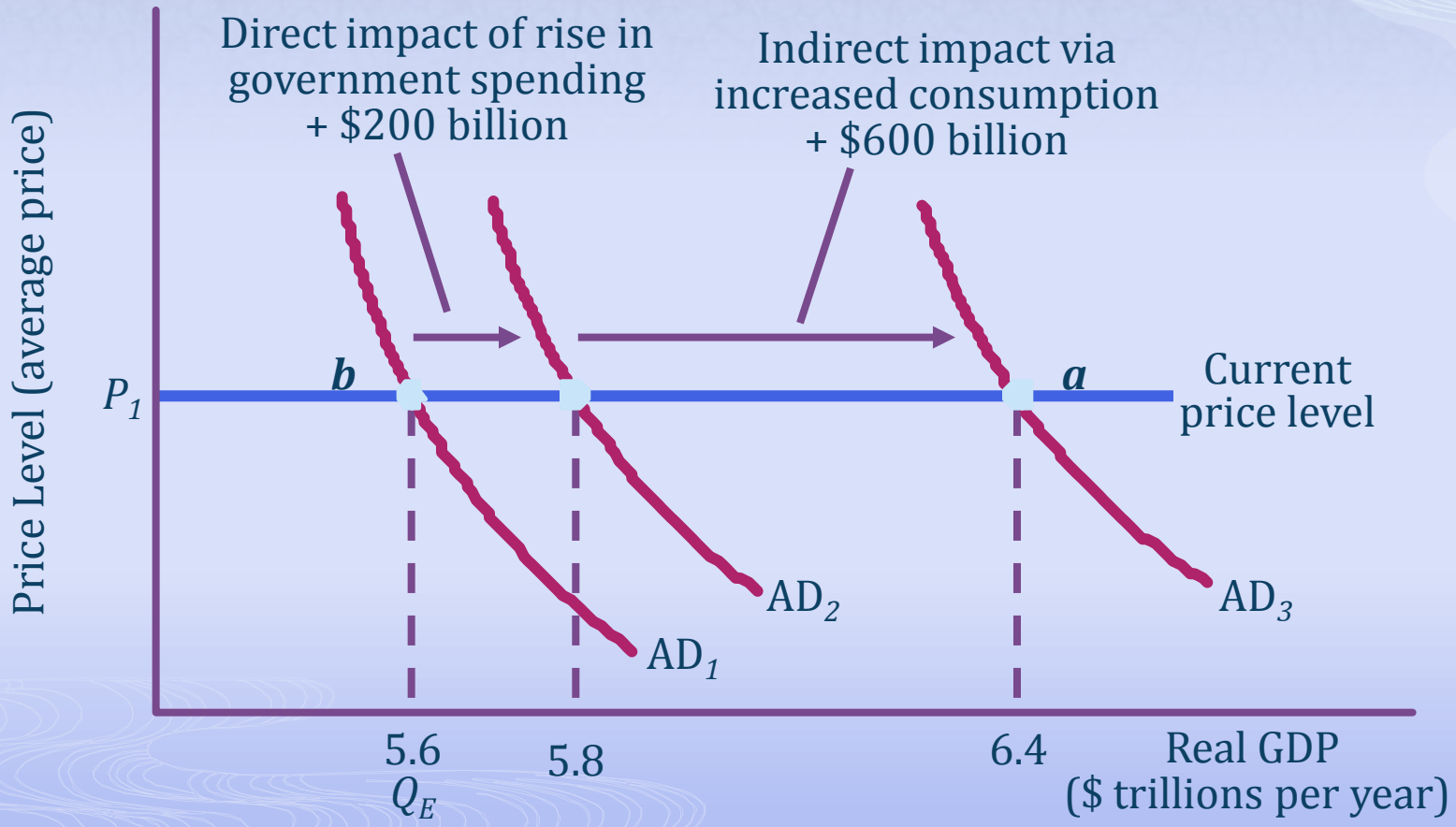
total change in spending = multiplier x new spending injection

Multiplier Effects

The impact of fiscal stimulus on aggregate demand includes the new government spending plus all subsequent increases in consumer spending triggered by the additional government outlays:

increase in AD = multiplier x fiscal stimulus

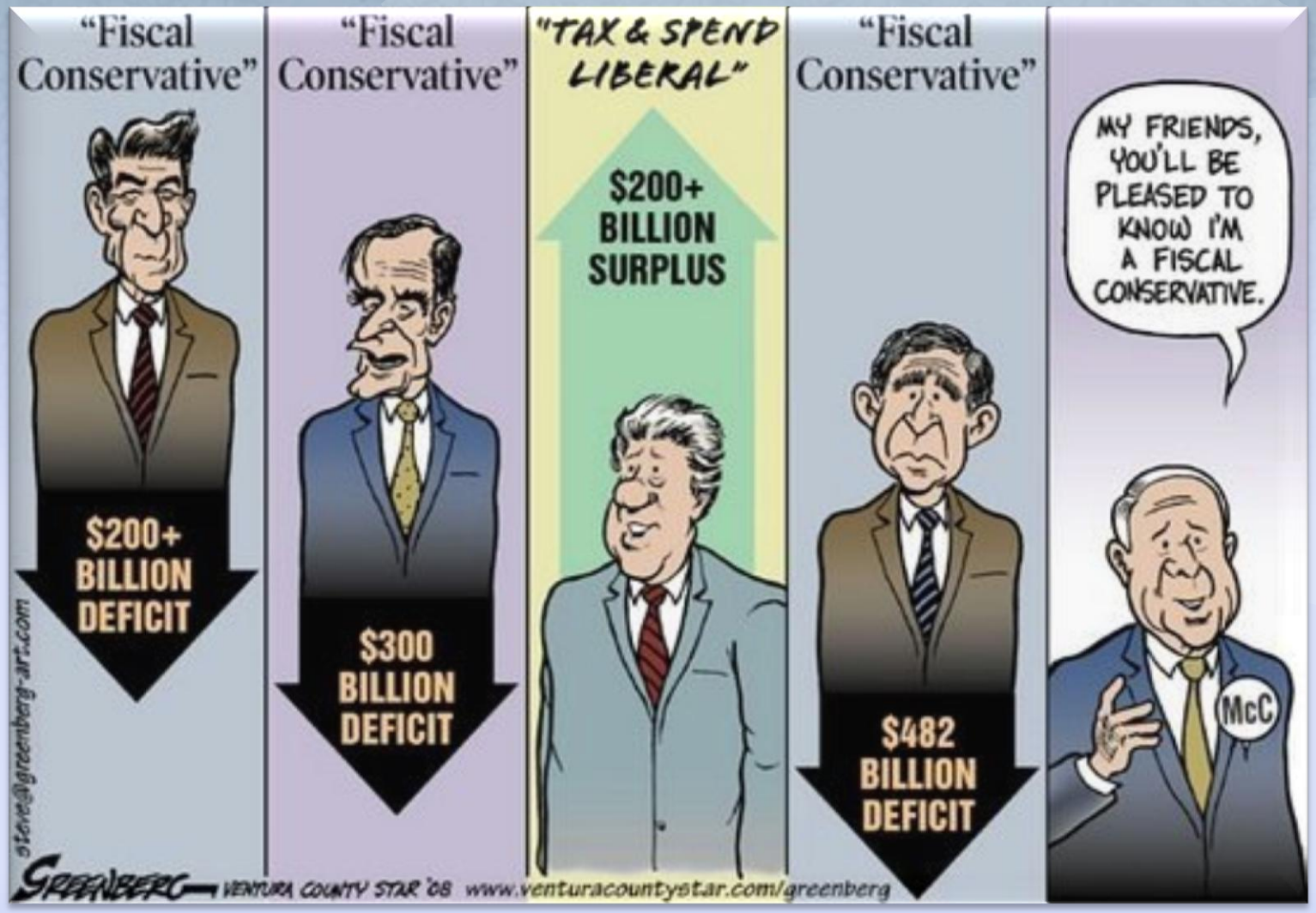
Chart: Multiplier Effects



The Desired Stimulus

The general formula for computing the desired stimulus is a simple rearrangement of the earlier formula:

$$\text{desired fiscal stimulus} = \frac{\text{desired AD increase}}{\text{multiplier}}$$



CONTINUED IN FISCAL POLICY PART II