The Budget Deficit Debate

- Historically, classical economics have argued that such budget deficits are bad, and should be avoided, except in wartime.
- Keynesians believe that, at least during recessions, budget deficits are a necessary byproduct of an expansionary fiscal policy.

Areas of Agreement

- Both classical and Keynesian economists agree that chronic budget deficits, such as the nation has been experiencing, are undesirable.

Key Question

How big a danger are these chronic deficits and a collateral soaring national debt?

In This Lesson

- Look at the dark side of using discretionary fiscal policy.
- The ark side is the budget deficits and public debt can occur when the government uses Keynesian fiscal policy to boost aggregate demand.

A Fiscal Policy Refresher

- **Keynesian Economists**: Favours discretionary fiscal policy to fight recessions and inflation.
- **Fiscal Stimulus**: Increased government spending or tax cuts, to fight recession and unemployment.
- **Fiscal Restraint**: Reduced spending, or increased taxes, to fight inflation.

The Deficit Financing Problem

- One problem with this Keynesian strategy (Deficit Spending), however, is that it implies that federal expenditures and receipts will not always be equal. Or another words lead to budget imbalances.
- Why? Because the government borrows funds to pay for spending that exceeds tax revenues.

The Budget Deficit Defined

Budget Deficit = **Government Spending** - **Tax Revenues**

- A **budget surplus** occurs when all taxes and other revenues exceed government expenditures for the year.
- A **balanced budget** when revenues and expenditures are equal in the increasingly rare instance.

The National or Public Debt Defined

- **Bonds: The government sells them to finance a budget deficit.**
- **National Debt: The total dollar value of the bonds owned by public.**
- **Debt Calculated: The accumulated budget deficits <u>minus</u> the accumulated surpluses.**
- **Who holds it? Banks, Households, and businesses AND foreigners.**

The Punchline

Key Point

Whatever the merits of Keynesian economics, the practice of using discretionary fiscal policy has produced precious few budget surpluses since the 1930s. This has been especially true since the 1970s.

#1: Debt-to-GDP Ratio

- The Debt-to-GDP Ratio: A very good yardstick of comparison.
- Why? In the abstract, a $5 trillion dollar national debt is a very large number.
- Such a debt would pose a far more crushing burden to a small nation such as Thailand than it does to the United States.

A Very Key Point!

Accordingly, comparing the debt to the GDP, gives us a measure of a nation's ability to produce and therefore its ability to pay off its debt.

#2: The Real Versus Nominal Deficit

- Distinguish between the real and nominal budget deficits!
- This distinction is important because it allows us to measure how inflation in any given year reduces the effective burden of the debt.

The Terms Defined

- The real deficit is the actual or "nominal" deficit adjusted for inflation's effect on debt.

Key Formula

Real Deficit = Nominal Deficit - (Inflation*Total Debt)

Pop Quiz

- The real deficit is the actual or “nominal” deficit adjusted for inflation’s effect on debt.

ASSUME

- **Nominal deficit= $100 billion**
- **Inflation Rate = 10%**
- **Total Debt = $5 trillion**

QUESTION

What is the Real Deficit?

Inflation Erodes the Real Value of the Debt!

Answer

Real Deficit = Nominal Deficit - (Inflation*Total Debt)

Real Deficit = $100 billion - (10%$5 trillion) = minus $400 billion

$500 billion

“Inflating the Debt”

- Key Point: Inflation can erode the total debt burden even if the nominal deficit increases in a given year!!
- Key Implication: The government can lower the debt burden by increasing inflation!!

An Important Caveat

Bond holders will demand a higher interest rate to compensate for the anticipated inflation and thereby drive up the nominal deficit through higher interest payments.

#3: Structural Versus Cyclical Deficits

- Structural deficit: The part of the actual budget deficit that would exist even if the economy were at full employment.
- It is due to the existing structure of tax and spending programs.
- The structural part of the budget is thought of as active and determined by discretionary fiscal policies

The Cyclical or Passive Deficit

- That part of the actual budget deficit attributable to a recessionary economy.
- Partly, from the government's "automatic stabilizers".
- Definition: Increased income transfers that kick in during a recession, on such things as unemployment compensation, food stamps, and other welfare benefits.

Key Point

The cyclical deficit results primarily from the shortfall of tax revenues that arises when the government's resources are underutilized. Such as in the downward portion of the business cycle.

Automatic Stabilizers & Income Transfers

- Income transfers are payments to the individuals by the government for which no current goods or services are exchanged.
- Examples: Entitlement programs like Social Security, welfare, and unemployment benefits.

Some Income Transfers Are Automatic Stabilizers

- Some of these income transfers, particularly, welfare and unemployment, are part of the government's automatic stabilizer system.

Key Definition

Automatic stabilizers are defined as federal revenues or expenditures that automatically respond to changes in the GDP in a counter-cyclical way.

Continued …Automatic Stabilizers & Income Transfers

- To better understand how income transfers can affect the economy. Here we see that when the unemployment rate increases by a percentage point the budget deficit increases. This is because even as government spending for items such as food stamps and unemployment benefits are rising. Government tax revenues are falling. In this case, government spending is acting counter-cyclically, helping to offset the recession. But the table also shows that an increase in inflation can also widen the budget deficit. This is at least partly because some income transfer programs like Social Security are indexed to inflation.

Calculating the Structural and Cyclical Parts of Budget Deficit

- Assumptions:
- GDP: $10 Trillion
- Budget Deficit = $100 Billion
- Unemployment rate = 7% (1% above full employment rate)
- Marginal tax rate = 30%

Question

How can we calculate which portion of the 100 billion dollar deficit is structural and which portion is cyclical?

We Can Use Okun's Law!

- Okun's Law says that a 1% fall in the unemployment rate will lead to a 2% increase in GDP.

Exercise

Try using Okun's Law to calculate the increasing GDP that would result if the unemployment rate were to fall from 7% to the full employment rate of 6%.

Step One:
Calculating The change in GDP

- If unemployment rate falls by 1% by Okun’s law, real GDP must increase by 2%.
- if GDP = $10 trillion as we have assumed, GDP will increase by $200 billion.

Step Two:
Calculating The change in Tax Revenues

Question

We have to calculate the additional tax revenues the government would collect from this increase in GDP. How much is that?

The Calculation

- At our assumed marginal tax rate of 30%, the additional $200 billion of GDP income, would generate an additional $60 billion in tax revenues.
- Calculation: (0.3 * $200B) = $60B

Question

What part of the total $100 billion deficit is structural, and what part is cyclical?

Step Three:
Calculate Components of the Deficit

Answer

- **The structural deficit clearly is $40 billion. Because that's how much of the deficit that would remain at full employment.**
- **That of course means that this cyclical deficit must be $60 billion.**

Why The Structural Versus Cyclical Deficit Is So Important

- It helps policymakers distinguish between long-term changes (Structural) in the budget caused by discretionary policies versus short run changes caused (Cyclical) by the business cycle.

Policy Guidelines

- Keynesian stimulus can be used to decrease a cyclical budget deficit by returning the economy to full employment.
- Keynesian stimulus in the presence of a structural budget deficit will only increase the deficit.

Historical Example:
Use Keynesian Stimulus in 1958?

- The Eisenhower Administration was running a $10B cyclical deficit.
- V.P. Nixon wants an expansionary tax cut to stimulate the economy.
- Eisenhower wanted to balance the budget before he left office and rejected such a tax cut for fear it would balloon the deficit.

Key Point

Pre. Eisenhower didn’t understand the difference between a structural and cyclical deficit!

When Bad Economics is Bad Politics!

Key Point

If Eisenhower had listened to Nixon and cut taxes, the result would not only have been strong economic growth. Eisenhower would have left office basking in the glow of a budget surplus of about $5 billion, more than enough to have paid for Nixon's tax cut. also likely the election of Nixon and not JFK!!!

Who Gets The Credit? Clinton or Bush?

- Clinton Claim: His policies reduced the budget deficit by more than half!

Fact
Or
Fiction?

The Clinton Deficit Reduction Plan

- Republican claim #1: Economic recovery reduced what was a cyclical deficit!
- Republican claim #2: it was George Bush who deserved most of the credit since the economic recovery began well before Clinton ever took office.

Who Is Right?

- Between 1992 and 1996, the federal deficit declined by $146 billion. From $290 billion to $144 billion, and yes that is more than a 50% reduction.
- How much of this deficit was structural and brought about by Clinton’s deficit Reduction Act of 1993 and other policies?

Congressional Budget Office Estimates

Key Findings of CBO

- **Structural deficit fell by $70 billion.**
- **$146 billion in deficit reduction, about half of that was due to Clinton Administration policies.**
- **The other half was due to improved economic conditions!!!**

The Calculation of the structural Deficit is Sensitive to the Natural Rate of Unemployment

Key Point

The structural deficit will be lower if we assume the economy can sustain a 4% rate of unemployment without increasing inflation. As opposed to, say, a 6% rate!

Sensitivity of The Structural Deficit to the Natural Rate

- Using Okun's Law and assuming a $10 trillion GDP:
  - We can calculate the difference in the assumed structural deficit for these two different unemployment rate scenarios to be $120 billion.

The Fiscal Policy Problem

- The natural rate of unemployment is 4%, the real unemployment rate is 6%, and the budget deficit is $120 billion for a $10 trillion GDP.
- When GDP increases by 4%, this leads to a $400 billion DGP increase and $120 billion increase in tax revenues. therefore, the entire deficit must have been cyclical!

Two Questions

- What change in fiscal policy would a Keynesian economist recommend facing such a large cyclical deficit?
- What would happen if the natural rate of unemployment actually turned out to be 6%?

The Keynesian conundrum

- A Keynesian would clearly argue for an expansionary fiscal policy. Both to close a perceived recessionary gap and eliminate the perceived purely cyclical deficit.
- If however, it turns out that the natural rate of unemployment was actually 6%. The Keynesian expansion would not only not eliminate the cyclical deficit, which as it turns out was purely structural.
- It would also result in an even bigger deficit and a bad case of demand-pull inflation.

How Budget Deficits Cause Problems

- The problems the deficit and debt may cause is in large part determined by how the deficit is financed.

Key Concept

Three major ways to finance a budget deficit:

1. **Raise taxes**
2. **Borrow money**
3. **Print money**

Financing the Deficit Through Taxes

$$GDP = C + I + G$$

$25 billion

Assume

- **Budget is initially in balance**
- **Government undertakes expansionary fiscal policy to close a recessionary gap.**

#1: The Raise Taxes Option

- How can the economy expand if taxes & expenditures go up by the same amount?
- The answer lies in the dynamics of the marginal propensity to consume(MPC).

An Example of a Tax-financed Stimulus

If:
A 425 billion tax hike to finance the $25 billion stimulus AND the MPC = 0.8

Then:
consumption only falls by $20 billion.

Math: (0.8 * 25 billion)

We Discover the Balanced Budget Multiplier

- The "net" Stimulus is therefore $5 billion after the tax hike!!!!
- From a previous lesson, we know if MPC = 0.8, then the Keynesian multiplier is 5.
- If you multiply the net $5 billion increase in aggregate expenditures by this multiplier, total economic expansion will be $25 billion.
- This is exactly equal to the original outlay of government expenditures!!!

A Really Cool Phenomenon!

- Macroeconomists refer to this phenomenon as the “balanced budget multiplier”.

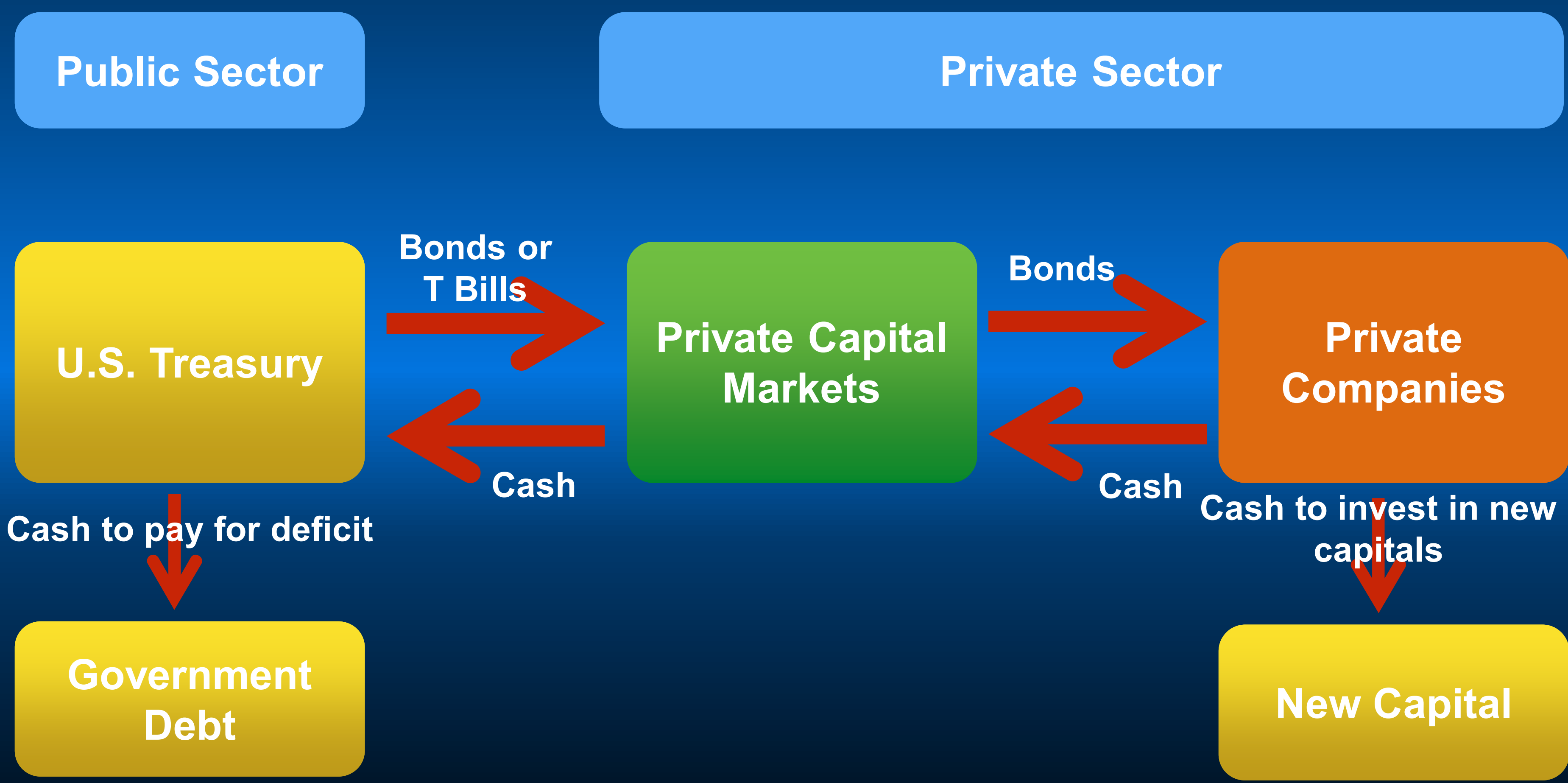
The balanced budget multiplier

- **This multiplier has a value of one. Because, when you simultaneously increase government expenditures, and increase taxes by the same amount. You get an economic expansion exactly equal to the increase in government expenditures.**

The Political Problem With Raising Taxes Option

- Raising taxes is rarely used to finance a Keynesian stimulus.
- Why? Because tax hikes are politically unpopular.
- The reaming options: Borrow money or print money.

#2 The borrow Money Option



Key Concept: Crowding Out

- To compete for scarce investment dollars, the Treasury raises its interest rate.
- Zero Sum Game: Funds to finance the deficit would otherwise be spent on private sector investment!
- In this case, deficit spending is said to "crowd out" private investment.

The Broader Point

- Crowding out applies only to structural deficits.
- If Cyclical deficit rises because of a recession, the logic of crowding out simply doesn't apply!

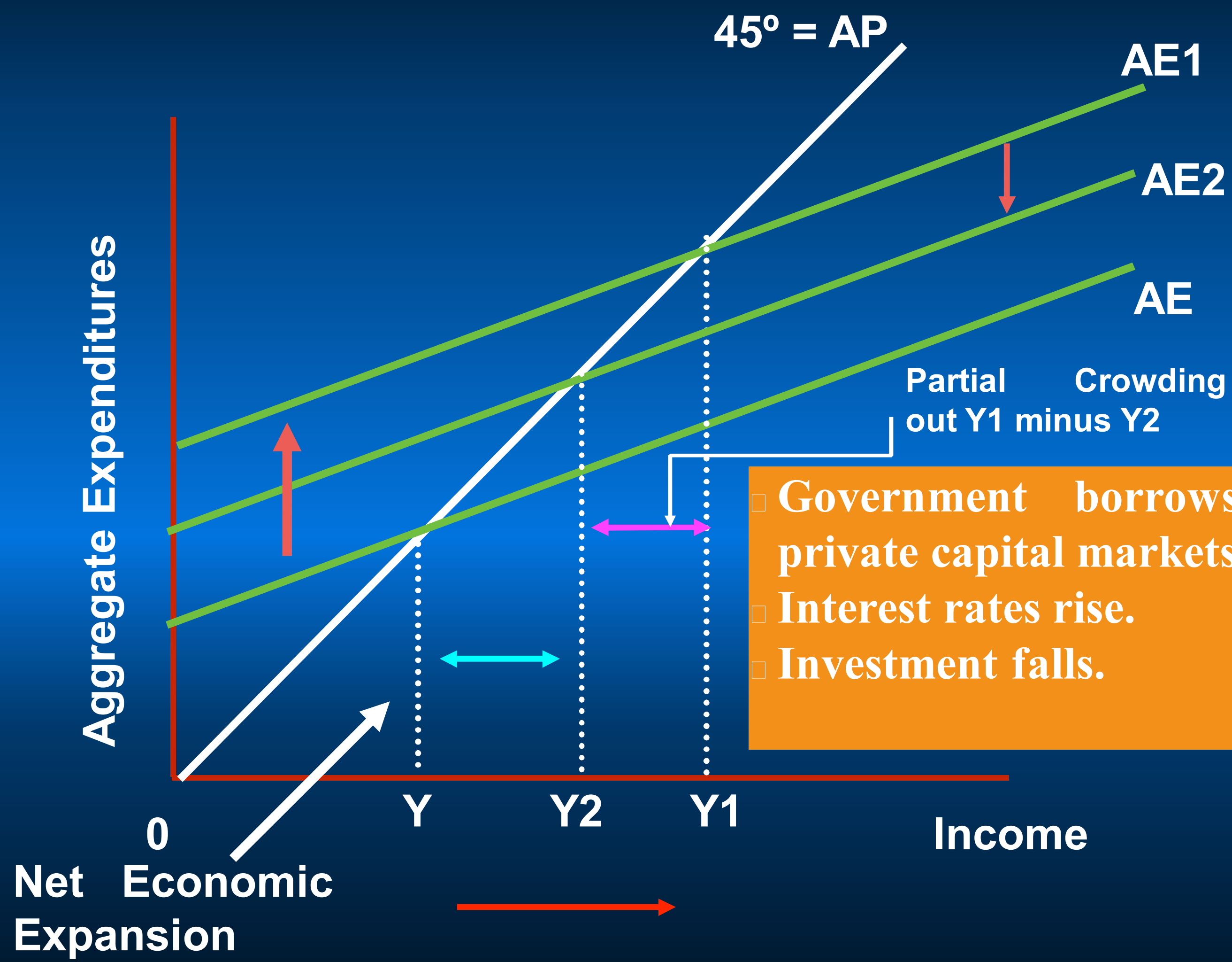
The Link Between Deficits & Investment

- Because a recession causes the decline in the demand for money and leads to lower interest rates.
- The Federal Reserve tends to loosen monetary policy in a recession.
- Implication: There is no automatic link between deficits and investment.

Exercise

Can you use the Keynesian model to more fully illustrate how the crowding out effect might reduce the actual effectiveness of fiscal policy?

The Crowding Out Effect



- Government borrows from private capital markets.
- Interest rates rise.
- Investment falls.

How To Complete Is Crowding Out?

- This is on the basis of this kind of analysis that critics of discretionary Keynesian fiscal policy have argued that it is a very weak policy tool.
- Monetarists tend to take the view that crowding out is almost complete so that fiscal policy is completely ineffective.
- Keynesians, on the other hand, typically argue that crowding out is minimal.

#3: The Print Money Option

- To avoid crowding out, the Fed"Accommodates" the Treasury's expansionary fiscal policy.
- The Fed buys the Treasury securities by printing new money.
- This increase in M can cause inflation!

Key Point

If such inflation drives interest rates up and private investment down, as it likely do do, the end result of the print money option may be a crowding out effect as well!!!!!!

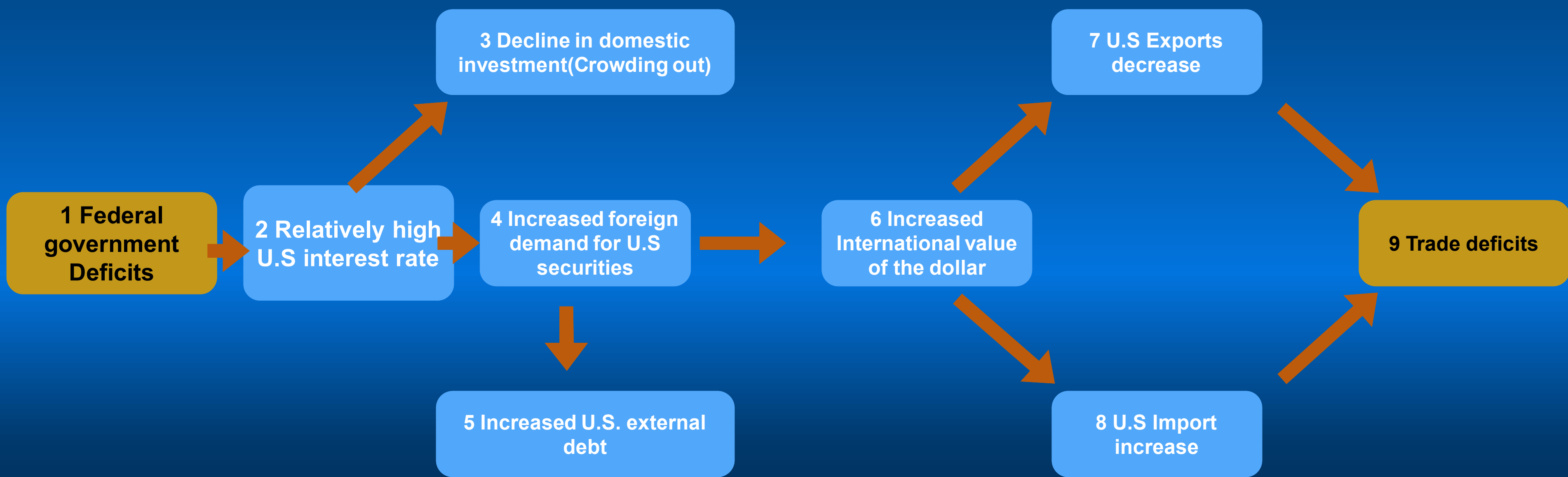
Budget Deficit Pros and Cons

- Deficit Hawks: review deficits and a rising government debt as a serious threat.
- Deficit Doves: would take the position that such deficits and debt are relatively harmless.

The Trade Defict Argument: Hawks

1. Chronic budget deficits have not only been responsible for **crowding out** private investment AND
2. Chronic budget deficits have also led to America's huge **trade deficits** over the last several decades.

The Trade Defict Illustration



Hence the terms : "Twin Deficits"

Other Policy Implications

- A trade deficit means a nation is not exporting enough to pay for its imports.
- The difference can be paid for either by borrowing from abroad or by selling US assets.

Mortgaging America

- To finance its trade deficit, the United States has had to sell off assets such as factories, shopping centers, hotels, golf courses, and farms to foreign investors.
- Over the longer run deficit hawks warn that this mortgaging of America, will reduce both the rate of economic growth. And the level of real income of Americans.

Government Debt, Economic Growth & Living Standards

1. Distinction between the external and internal debt.
2. Discuss the inefficiency of levying taxes to pay interest on the debt.
3. Examine the impact on the debt of the productivity and capital accumulation.

Deficit Doves Say “Don’t Worry!”

- Internal Debt: Owed by a nation to its citizens.
- External Debt: Owed to foreigners!

The Dove’s Main Point

Since we owe most of the debt to ourselves, we shouldn’t worry!

Deficit Hawks Warn of Great Danger

- As far back as the 1960s, the percentage of U.S. debt held by foreigners has steadily risen.

The Hawk's Main Point

The more U.S. debt foreigners hold, the more foreign nation can use that debt for political and economic leverage!

A Tax On U.S. Citizens

- Paying interest on the external debt acts like a tax on US citizens by foreigners.
- This “Debtor’s tax” reduces the economy’s short and long term growth rates.
- The holding of large amounts of America's debt by foreigners exposes American public policy to undue political pressures.

Other Arguments of Deficit Hawks

Key Deficit Hawk's Point

A Large internal debt is unacceptable for four reasons.

#1: Internal Debt Leads to Higher Taxes

- An internal debt requires payments of interest to bondholders. This in turn means higher taxes.
- Such taxes inevitably distort allocation of national resources and lead to an efficiency loss.

#2: Internal Debt Redistributes Income From Poor To Rich

- This happens because government bondholders as a group tend to be wealthier than taxpayers as a group.

#3: Servicing The Debt Cuts Government Services

- Paying interest on the debt uses hundreds of billions of dollars each year, and this money could otherwise be spent on providing taxpayers with more education, health care, and other government services.
- The size of the interest payments to service the debt, relative to total tax revenues, has been steadily rising.
- We may eventually wind up using all available tax revenues simply to service the debt.

#4: A Burden on Future Generations

- Such a large debt places an unreasonable burden on future generations. Which must pay this debt off.

The Dove's Benefits Of Debt

- Any debt that occurred now as a result of public investment will provide benefits, not just a burden, to future generations.

- **The impact of the deficit on investment and productivity.**

The Doves: Productivity Rises

- Productivity of the private sector depends critically on public investment in a wide variety of public goods and services from education, training and basic research. The public infrastructure such as roads, bridges and even the information super highway.
- Therefore, in some cases running deficits can actually increase the productivity of the private sector and thereby boost both economic growth and real national income.

The Hawks: Productivity Falls

- Far too many government expenditure are made on "wasting assets" rather than productive capital.
- Roads, bridges and education may boos productivity.
- However, wasting assets such as fighter planes and welfare programs don't boost productivity.

The Hawks: Long Term Growth Falls

- Studies show public sector investment is <u>less productive</u>.
- When deficit spending crowds out private sector investment, it reduces the rate of long term economic growth.
- Because it substitutes less productive government expenditures for more productive private investment.

The Hawks: Deficits Constrain Fiscal Policy When It Is Most Needed

- Historical Example: The Fed cut interest rates to stimulate the sluggish economy but fiscal policy wasn’t used because of the big budget deficit.
- Expansionary monetary policy alone was slow to expand output and reduce unemployment.

Hindsight Is A Soaring Budget Deficit

- it would have been much more politically feasible to engage in expansionary fiscal policy as well, by reducing taxes or increasing spending.
- The growing debt problem helped rule this stimulus out on political grounds.

The Deficit Hawks Summary

- Chronic budget deficits increase the trade deficit, crowd out private investment and reduce economic growth.
- These hawks likewise warn that the growing national debt is unfairly burdening future generations and exposing America to dangerous political pressures form foreign governments.
- Servicing the interest payments on this debt redistributes income from the poor and middle-class to the rich.

The Deficit Doves Summary

- The deficit is primarily as a stimulus to economic growth and reject both the crowding out and trade deficit arguments.
- They see the national debt as productive investment in public goods and infrastructure.
- The debt is manageable relative to the size of GDP.
- Since we “owe it largely to ourselves,” it's not a problem.

A Balanced Budget Amendment

- Would compel Congers to annually balance its budget.

Question

What impact do you think such an amendment might have on the use of discretionary fiscal policy?

The Preverse Effect of A Balanced Budget Amendment

- The Amendment would force the government to balance the budget during a recession by either increasing taxes or cutting spending.
- From a Keynesian perspective, we know of course that the likely result would be to plunge the economy deeper into recession.