

Money and Public Purpose

Week 4: Macroeconomic Policy

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Week 4: Part 1

Macroeconomic Policy and Unemployment

Macroeconomic Policy

Study of how government should address problems which affect economy as a whole

Importance of “should”

Macro policy is inherently prescriptive

Starts with our understanding of how overall economy works

- Description provided by macroeconomic theory

When the word "should" appears we are bringing our values into the discussion

Values in macroeconomic policy

Values include:

- Our individual economic interests
- Our class interests

Different people hold different values

- Even if two people share same macroeconomic theory, they can favor different macro policies if they have different values or economic interests
- Macroeconomic policy is inherently political

Three Macroeconomic Policy Problems

1. Unemployment
2. Composition of output
3. Inflation

We'll close with an example from this year of an MMT-inspired macroeconomic policy

Unemployment

Macroeconomics *per se* did not exist prior to Great Depression

Fall in aggregate output and rise in unemployment to double-digit levels spurred development of discipline

How Neoclassical Economics Tried to Explain Mass Unemployment

Neoclassical economic theory had no adequate explanation for mass unemployment

Argued that mass unemployment was merely an imbalance between supply of, and demand for, labor

- An imbalance that could be resolved by workers' accepting lower real wages
- That decline in the "price" of labor would eventually induce employers to hire

Week 4: Part 1

Macroeconomic Policy and Unemployment

Keynes didn't buy this explanation

See textbook for a thorough description of his refutation of neoclassical position

Fallacies of Composition (1)

Keynes exposed fallacies of composition in neoclassical economics

Wage cuts and aggregate demand

- Workers' wages are largest source of consumption spending
- Consumption spending is largest component of overall spending -- GDP
- If any given employer cuts his workers' wages, his profits will go up
- But if all employers try to cut wages, consumption spending will decline -- as will GDP

Fallacies of Composition (2)

Savings and Investment

It may be virtuous for any one household to not spend all of its income

- That is, to save

But if all households try to save, overall consumption spending will fall

And since nothing guarantees that every dollar saved is automatically reinvested, overall GDP will fall as well

Investment Spending: Most Volatile Component in Aggregate Demand

A shortfall in investment spending could be counterbalanced by government spending in excess of taxes

In sectoral balances terms:

- Surplus in the private domestic sector
- Could be counterbalanced by a deficit in the government sector

The General Theory of Employment, Interest and Money (1936)

Did not really gain wide acceptance during remaining years of the Great Depression

- In 1937 U.S. government attempted to bring its budget back into "balance"
- But that only sparked a recession

Up through 1939, as Edward Nell (HGSSS advisor) once remarked:

"Capitalism didn't end the Great Depression. Instead, it had a war."

Post-war Attitude toward Unemployment (1)

World War II demonstrated that government spending could stimulate the economy and prevent mass unemployment

- "Maximal" employment enshrined as a government macroeconomic policy objective in the Employment Act of 1946
- Though not "full" employment

Post-war Attitude toward Unemployment (2)

For next twenty-five years, consensus within the economics profession and within government was:

- Mass unemployment must be avoided
- Unemployment was a highly treatable problem

Week 4: Part 1

Macroeconomic Policy and Unemployment

We have to cite some problems with the post-war consensus on unemployment

Military Keynesianism: massive, Cold War-era defense spending

- Spikes during Korean and Indochina wars
- When government spends for defense, most of that spending goes to military contractors
- Large corporations working under "cost-plus" contracts
- Paying comparatively high salaries and wages
- Does not benefit people in the lower half of labor market
- People most at risk for unemployment

Types of unemployment (per economics profession)

- **Cyclical unemployment:** variations in unemployment over course of business cycle
 - Impact could be mitigated by automatic stabilizers such as unemployment insurance
- **Behavioral and structural unemployment** attributed mostly to characteristics of unemployed themselves
 - Ill suited for employment
 - Lacked job skills
 - Victims of racial discrimination
 - Forms of unemployment said not to be amenable to macro-level solutions
 - Targeted interventions necessary

War on Poverty

During Johnson Administration War on Poverty in the mid-1960s, great emphasis placed on "job training"

First train the chronically unemployed, then they'll be able to get the jobs

Not a big success

War on Poverty Criticized by Minsky

Economist Hyman Minsky

- Later to be one of the grandfathers of modern monetary theory

Criticized this approach as putting cart before horse

- Most job skills acquired on the job, not in training
- Called for the government to serve as employer of last resort

The Composition of Output

During Great Depression, balance among different sectors of the economy as to what was being produced was not a major economic problem

- Problem was **how much** was being produced (or not produced)
- Not **what** was being produced

Europe, 1939

Onset of war meant composition of output became an immediate problem for governments

- Suddenly, a huge portion of national output had to be devoted to war production
- Unemployed workers and underutilized industrial capacity had to be brought back into production

Conversion to Wartime Production

- Much non-defense production had to be suspended for duration in favor of war production
- Assembly lines had to be converted from producing autos to producing tanks
- Labor force had to expand by incorporating people previously not in the labor force, such as women
- The labor force had to be provided with good wages as an incentive for maximum effort

Implications for Consumption Spending

Larger, better paid labor force would want to spend its income on consumer goods

But wait! We had to limit the production of consumer goods in order to shift resources to defense sector

Where was that spending power going to go?

Default to Price Increases for Consumer Goods

Thereby using **price as rationing mechanism**

- Companies' profits would increase and, during wartime, they might be accused of being "war profiteers"
- Government could impose an excess profits tax
- Thereby bringing the money the government had spent into the economy back to the government

Potential Inflationary Spiral

Workers would demand higher money wages to compensate for higher prices of consumer goods

- Particularly workers in unions or those in defense plants
- Would take a year or so for workers to get those higher wages
- But even if they did, a wage-price spiral would be set off and workers as a whole might not get any increase in consumer goods

Another Approach: Quantity Rationing

Government could decide how much of a given consumer good would be produced

- Then give everyone ration tickets to a certain quantity of that good

Rationing is never very popular

- Hard to get right: Can't deal with the heterogeneity of demand for consumer goods
- An administrative nightmare
- Best it used sparingly, for the bare necessities
- Provide consumption floor for poorest part of the population

Yet Another Approach: Direct Wage and Price Controls

Problem: Employers would be all too willing to impose wage controls but would evade price controls

- Workers would get angry
- Not good for social cohesion when your nation is facing an existential threat

Still Another Approach: “Voluntary” Saving

Have people buy war bonds payable after the war is over

- Money used to purchase those bonds would be diverted from consumption spending during the war
- Thereby freeing up resources for defense production

Tried on massive scale in both Britain and the U.S. during World War II

- But would it be enough?

Composition of Output as Macroeconomic Problem

What is to be produced?

Problem is most serious when the nation is facing a severe challenge

- A challenge which requires government to cause diversion of resources from one part of economy to another

Week 4: Part 2

The Composition of Output

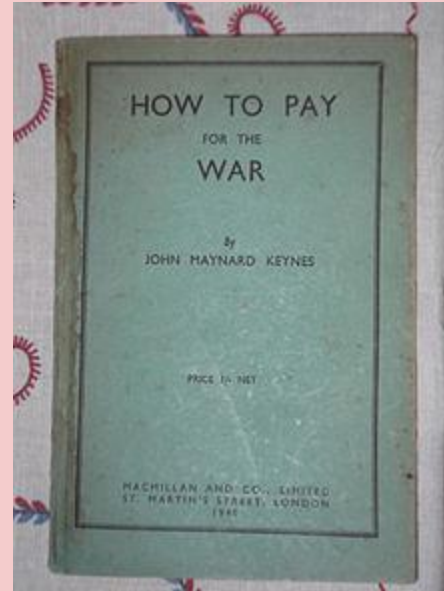
J.M. Keynes, *How to Pay for the War* (1940)

The line of analysis I just presented

Book's title is a bit misleading

- Concerned with more than just budgeting and public finance

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Keynes' Recommendations

Keynes drew upon his personal experience in British Treasury during World War I

Argued that best tool to deal with economic disruption caused by necessary changes in composition of output would be **deferred compensation**

- Yes, allow individual and trades unions to negotiate wages with employers
- But then, require a certain portion of those wages to be deposited in a "blocked," interest-bearing account
 - Somewhat like a mandatory version of IRAs

Deferred Compensation

Involuntary Savings

- After the war, government would authorize payments out of those accounts in installments
 - Particularly installments paid out at onset of economic recessions
- Consumption spending deferred until a point real resources could be diverted from war production back to consumer production

How I've Framed the Argument

Framed this discussion as being about **composition of output** as a macroeconomic policy problem

- Though I've talked about wage increases and price increases, I have not framed this discussion as being about ... *the I-word*

Inflation

When I was a lad ...

In mid-1950s and the 1960s, most people would **not** have said "Inflation is #1 economic problem"

- Conservative business columnists would have
- Adults remembered inflation during World War II and Korean War
- Few would have said, "We're in the grip of inflation"
- **Inflationary psychology** did not dominate economic decisions

Changes in Late 1960s

But toward the end of 1960s ...

- Vietnam War dragged on
- Consumer prices started to rise

People started to expect them to continue to rise: **inflationary expectations**

- 1971: Nixon administration decreed wage and price controls
- In order to "break" expectations that prices were continuously rising
- Wage and price controls did not achieve that effect

Inflationary Psychology in 1970s

Inflationary psychology: notion that we had to factor in expectations of continuously rising prices into everyday decisions

- Prevailed throughout 1970s
- Aided and abetted by two rounds of increases in price of gasoline after oil embargoes of 1973 and 1979
- Did not subside until mid-1990s.
- In large segments of economics profession and business press, they have not subsided to this day

Inflation as Macroeconomic Problem

In our textbook, Mitchell *et al.* define inflation as a
"continuous rise in the price level" over a number of time periods

A "one-off price rise is not an inflationary episode." (Macro 255)

"Too much money chasing too few goods"

Everybody has heard that short-hand description of inflation

Emphasis will almost always be on “too much money”

- An excess of aggregate demand

Why do people have "too much money"?

- Big government, in order to pay for its profligate ways, has been running a deficit
- Making up for it by "running the printing presses"

Beware! Slippery Slope Ahead!

When you hear "too much money", you can bet you'll soon run into a "slippery slope" metaphor

- "If we don't stop printing money, we'll begin to slide down a slippery slope until we're paying bills with wheelbarrows of cash like in Weimar Germany or Zimbabwe."

Hyperinflation: an extreme case of accelerating inflation

Fear of hyperinflation stops discussion of inflation dead in its tracks

Quantity Theory of Money (1)

More sophisticated version of "too much money" argument

- Dates back hundreds of years
- Strongly criticized by Keynes
- Central to the monetarist school of economics which was dominant in the 1970s and 1980s

Quantity Theory of Money (2)

Quantity Theory of Money argues that changes in the money supply ...

- "Printing money"
- Or, these days, expansion of credit by the central bank via computer keystrokes

... are the primary cause of changes in overall price level

Monetarist Macroeconomic Policy

Monetarists argued that:

- The central bank could effectively control the growth of the money supply by setting rules for itself
- Such control of the growth of the money supply would moderate inflation and lay a basis for steady economic growth
- Fiscal policy was ineffective and undesirable

Monetarist Macroeconomic Policy in Practice (1)

1980s experience: Central bank could **not** effectively control the growth of the money supply

- Money supply targeting was abandoned by the mid-1980s

Monetarist Macroeconomic Policy in Practice (2)

The central bank could, however, effectively control **interest rates**

- the price of borrowed money

So, from 1979 onward monetary policy was assumed to be most important component of macroeconomic policy

- Fiscal policy was relegated to the sidelines

What if problem is not so much "too much money" but "too few goods"?

What if the problem is more on supply side rather than demand side?

We can imagine two types of this problem

First, a country in social and political upheaval whose productive capacity is collapsing

- Hyperinflations are really quite rare, but when they do occur it's almost always in a context of collapsing productive capacity. (Macro, 344-346)

Nation Needs to Re-Direct Productive Capacity

Second case: a country with extensive productive capacity may be faced with an existential challenge

- A challenge which, at outset, means it has "the wrong type of goods" to meet that challenge
- At start of World War II both Britain and the United States faced the challenge of ramping up war production
- While holding production of consumer goods to level that civilians could tolerate

"Too much money chasing too few goods" is too simplistic

Must focus on supply side at least as much as demand side

MMT: Focus on **real resources**

- Inflation is only possible when demand for goods and services,
- ... expressed in money terms,
- ... is greater than what can be supplied with
- ... real resources available to economy

Demand Pull Inflation

"Situation where prices start accelerating continuously because nominal aggregate demand growth outstrips the capacity of the economy to respond by expanding real output." (Macro, 260)

Note: It doesn't really matter where in economy excess demand is coming from

- If all labor, raw materials and capital goods are being utilized to the max
- An additional dollar of demand for goods is going to put upward pressure on prices whether it's consumers, business or the government spending that dollar

Cost Push Inflation

"Originates from the costs of production increasing and pushing up the price level." (Macro, 254)

Presumes firms with enough market power to be price setters, and not mere price takers

Mark-up Pricing and Cost Push Inflation (1)

Such firms

"... set prices by applying a mark-up to costs. Firms seek to achieve target profit rates ... expressed by the size of the mark-up on their unit costs. Unit costs are driven largely by wage costs, productivity movements and raw material prices. Shifts in any of these determinants can generate cost increases, which price setting firms may pass on by raising prices."

(Macro, 256)

Mark-up Pricing and Cost Push Inflation (2)

- Suppose workers in an industry composed of firms with enough market power to be price setters are organized into labor unions
- Suppose those unions are powerful enough to earn higher wages for their members
 - Yes, once upon a time that's the way the U.S. economy worked!
- Fact that these firms are price setters suggests that they can pass costs of higher wages on to purchasers of their products
- Across the board, potential for cost-push inflation
- Distributional conflict in which claimants to national income (capital and labor) try to maintain their relative shares of that income

Demand-Pull and Cost-Push Inflation

No hard and fast line between them

Both presume economy is bumping up against its limits of real resources

- whether in particular oligopolistic economic sectors
- or in the economy as a whole

Inflation: Summary (1)

- Inflation is only possible when the demand for goods and services, expressed in money terms, is greater than what can be supplied with the real resources available to the economy
 - MMT focuses our attention on both the supply side and the demand side in a more balanced way than orthodox economics
- Hyperinflation is historically rare
 - Only possible when an economy's ability to provide goods and services has been severely disrupted
 - Otherwise, no slippery slope to hyperinflation

Inflation: Summary (2)

- If an economy with a sovereign currency and flexible exchange rates is not bumping up against limits of real resources, then risk of inflation is low
- If such an economy *is* bumping up against limits of real resources, then additional monetary demand will put pressure on prices regardless of which sector of economy that demand comes from

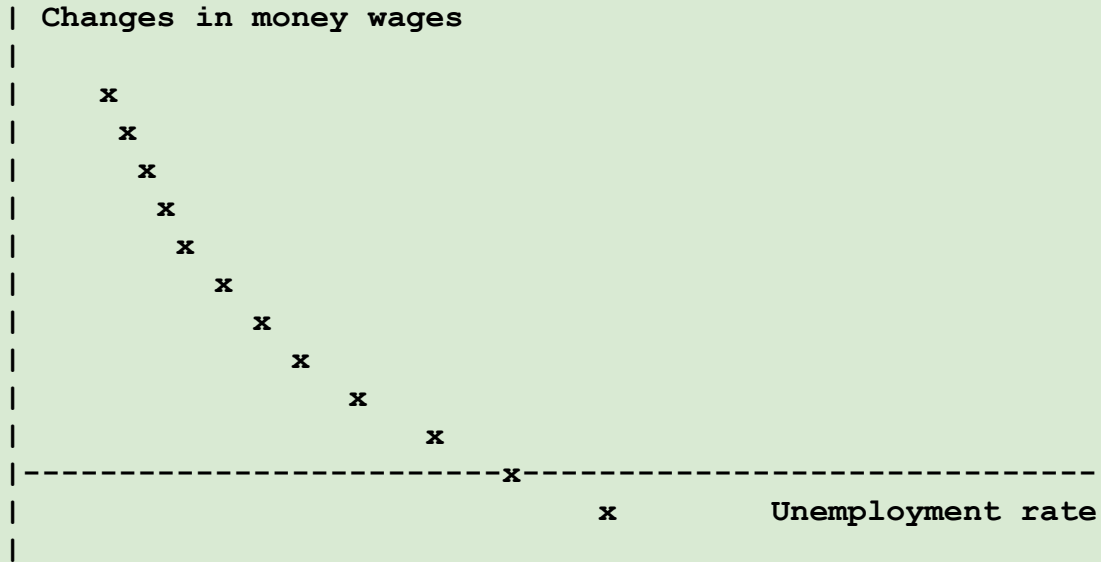
The Alleged Relationship between Inflation and Unemployment

A topic you're bound to encounter in economic discussions: the **Phillips Curve**

First Version of the Phillips Curve

- 1958 New Zealand economist A. W. Phillips
- Marshaled decades of economic data to argue that there was an inverse relationship between changes in money wage rates and the unemployment rate
- When graphed with the unemployment rate on the X-axis and changes in money wage rates on the Y-axis, this suggests a curve which slopes down and to the right

Phillips Curve (original 1958 formulation) (1)



Week 4: Part 4
Phillips Curve

Phillips Curve (original 1958 formulation) (2)

A priori plausible

When unemployment rates are high, workers' power to bargain for higher wages is low

When unemployment is low, workers are in a better position to demand better pay

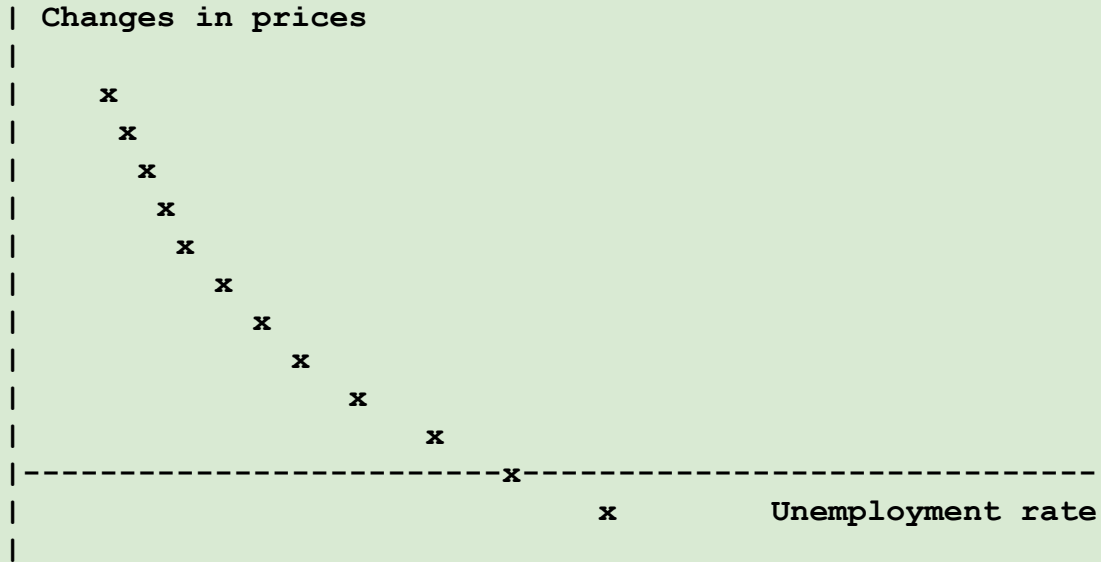
Phillips Curve (1960 re-formulation)

Paul Samuelson and Robert Solow (both of MIT)

Introduced the Phillips curve to American economic thinking --
with an important twist

- Postulated that changes in overall prices ...
 - What we typically call "the rate of inflation" --
- ... would closely track changes in money wage rates
- We could therefore put changes in overall **prices** on the Y-axis instead of changes in **money wages**

Phillips Curve (1960 Samuelson-Solow re-formulation) (1)



Week 4: Part 4
Phillips Curve

Phillips Curve (1960 Samuelson-Solow re-formulation) (2)

New Phillips curve would still slope downward to the right

But now: Points on Phillips curve would represent a "menu of policy choices"

- From which the government could "choose" various combinations of inflation and unemployment as policy targets
- "We", they argued, could choose lower unemployment if "we" were willing to put up with higher inflation

Phillips Curve (1960 Samuelson-Solow re-formulation) (3)

The "menu of policy choices"

- Alternatively, if "we" felt inflation was too high, "we" could use monetary and fiscal policy to "tighten" the economy
- Consequence of which would be higher unemployment but reduced inflation

The alleged **"unemployment-inflation tradeoff"**

Week 4: Part 4
Phillips Curve

Begs the question ...

Who is the "**we**" making the call as to the tradeoff between unemployment and inflation?

Guns and Butter

1964 saw Kennedy-Johnson tax cuts --
but 1965 saw major escalation of Vietnam War

Johnson administration and its defenders among economists argued that

- Economy was so strong; and
- Our ability to manage the macroeconomy was so good

... that we didn't have to choose between "guns or butter"

- We could have both

Guns and Butter ... or Guns or Butter?

Unlike during World War II, no call for curtailing civilian consumption in order to pay for the Vietnam War

No policy change until 10% income tax surcharge in 1968

U.S. economy began to bump up against limits of real resources

Significant inflationary pressure

Stagflation in the 1970s

A stagnant economy

- Higher unemployment than seen in the previous two decades
- But with higher inflation as well

A combination **not** anticipated by the (Samuelson-Solow) Phillips Curve!

Meanwhile, back at the Economics ranch ...

Concept of a tradeoff between inflation and unemployment was coming under fire from Milton Friedman

- University of Chicago
- Leading monetarist
- Long skeptical of the merits and efficacy of government "intervention" into the economy

The “Natural” Rate of Unemployment (1)

Friedman addressed American Economics Association in 1968

- Denied any long-term possibility of a policy tradeoff between inflation and unemployment
- Argued that a modern capitalist economy had a **"natural rate of unemployment"**
- A single rate of unemployment which was only one consistent with stable prices

The “Natural” Rate of Unemployment (2)

Friedman argued:

- If government attempted to push unemployment rate below this "natural rate," inflation would accelerate
- Once empirical level of this natural rate was determined, government should keep unemployment at that level so as to avoid inflation
- -- even if that meant leaving millions of people unemployed

Unsettled Questions

- Was there a tradeoff between unemployment and inflation?
- Was there a natural rate of employment?

Econometric analysis was always inconclusive ...

- ... but policy-makers continue to act as if there is a tradeoff
- Convenient for the Fed to do so, because of its “dual mandate”

Elite Consensus by End of 1970s

By end of 1970s political elites believed:

- Inflation was now #1 economic problem
- Most effective way to deal with it was to keep wages from rising
- As productivity increased, gains from productivity were to go to capital and not to labor
- Share of profits in national income began to climb
- Wage share declined

Class Struggle over Relative Shares (1)

How was tilt toward capital accomplished?

First, breaking the power of labor unions to secure workers' share of productivity gains

1979: UK Thatcher government's breaking of mineworkers strike in Britain

1981: US Reagan administration's breaking of air traffic controllers' strike

Class Struggle over Relative Shares (2)

Second, create much larger pool of unemployed labor to undermine workers' bargaining power

- President Carter appointed Paul Volcker to be Federal Reserve chairman in 1979
- Volcker used the levers of monetary policy to raise interest rates to unprecedented levels
- Choked off business investment spending
- Set off (what was then) worst economic recession since World War II

Class Struggle over Relative Shares (3)

Over the course of the 1980s, inflation did subside, but ...

- Price was heavy unemployment
- Erosion of workers' bargaining power
- Steady tilt in distribution of income from labor to capital
- Persists to this day

Functional Finance vs. Sound Finance

- Functional finance aims for socio-economic outcomes
- Sound finance aims for balanced budgets

Sound Finance

- Aiming for some desired fiscal outcome (e.g. a fiscal surplus or balanced budget)
- Generally equates government budget to a household budget

Functional Finance

- Term proposed by Abba Lerner in 1943
- “Any assessment of the fiscal position of a nation must be taken in the light of the usefulness of the government’s spending program in achieving it’s national socio-economic goals.” (Macro 15)

Functional Finance (2)

“Functional Finance rejects completely the traditional doctrines of ‘sound finance’ and the principles of trying to balance the budget over a solar year or by any other arbitrary period. In their place it prescribes ... the adjustment of total spending in order to eliminate both unemployment and inflation, using government spending when total spending is too low and taxation when total spending is too high...”

(Lerner 1943)

“We should balance the economy, not the budget.” - Stephanie Kelton

The Deficit “Birds”

- **Deficit Hawks**
 - Oppose deficits
- **Deficit Doves**
 - Support deficits sometimes
 - Seek to balance budget over the course of the business cycle
- **Deficit Owls**
 - Assign no arbitrary limit to size of deficit
 - Focuses on socio-economic outcomes rather than budget

Hyperinflation

- Extreme cases of accelerating inflation
- Common examples: Weimar Republic, Zimbabwe, Venezuela
- Often claimed that “printing money” causes hyperinflation
- Upon closer examination, *real resource* constraints historically cause hyperinflations

Fiscal Space

- “A conceptual framework used by international agencies such as the IMF to assert that there are financial limits on the capacity of currency-issuing governments...” (Macro 349)
- Sovereign governments are not revenue constrained, meaning fiscal space cannot be defined in financial terms
- Government capacity to mobilize resources depends only on real resources, not financial constraints

Fiscal Sustainability

- We often hear that deficit/debt is unsustainable, however, affordability is not an issue for sovereign government
- All financial obligations denominated in sovereign currency are “sustainable”; real resources are what we should look to in terms of sustainability

Week 4: Part 6

Monetary Policy in Sovereign Nations

The takeaway: Monetary policy is oversold

Mainstream economics rule of thumb:

Monetary policy is what the Federal Reserve does

Fiscal policy is what Congress and the executive branch do

- Congress approves spending and writes tax laws
- Executive branch of government spends money per congressional appropriations and collects taxes
- Within executive, Treasury Department oversees money flows in and out of government

What is the Federal Reserve concerned with?

- Not concerned with taxation
- Not concerned with government spending either
 - Except for some coordination issues

Fed is one of several agencies charged with regulation of financial system

- Federal Deposit Insurance Corporation (FDIC)
- Office of the Comptroller of the Currency (OCC)
- others

Federal Reserve responsibilities

Maintenance of the payments system

Providing liquidity to the banking system

Lender of last resort to banking system in event of crisis

Federal Reserve and Monetary Policy

These responsibilities are not what we think of as as monetary policy *per se*

They are not aimed directly at affecting levels of macroeconomic variables such as

- Output
- Income
- Employment
- Prices
- Interest rates

“Dual Mandate” of Federal Reserve

Since 1977 the Fed has been required by Congress to pursue so-called "**dual mandate**" of stable prices and employment

- Keep inflation low
- Keep employment high

Twice a year the chair of the Federal Reserve has to testify before both Senate and House

Questions we have to ask:

What are the tools of monetary policy which the Fed uses to pursue the dual mandate?

How well do those tools work?

Interest Rates as Monetary Policy Tool (1)

Changes in interest rates: Principal tools available to Fed to affect the overall economy

Interest rates affect decisions made by individuals and businesses to borrow

Individuals borrow for:

- Housing purchases
- Purchases of durable goods, e.g., autos
- Student loans
- Consumption on credit cards

Interest Rates as Monetary Policy Tool (2)

Businesses borrow for:

- Long-term investment in plant and equipment
- Financing raw materials purchases and inventories
- Covering short-term cash-flow needs

Interest Rates as Monetary Policy Tool (3)

If interest rates go up, all of those activities are likely to fall

- Declines will show up in the '**C**' (consumption) and '**I**' (investment) components of GDP

If interest rates go down, all of those activities are likely to increase

- Leading to increases in '**C**' and '**I**' and therefore in GDP

Interest rates charged by lenders usually expressed as markups overnight interbank lending rate

Reserve Requirements and Market for Reserves

Banks have to meet reserve requirements imposed by the Fed

- If banks are short reserves at end of business day ...
- Quickest way for them to obtain reserves is to borrow them overnight from banks with surplus reserves
- In the U.S., this overnight interbank interest rate is called the **"federal funds rate"** ("fed funds")

Fed Funds Rate as Monetary Policy Target

Fed funds rate is Federal Reserve's most important policy target

- Fed tries to keep fed funds rate within a certain narrow range
- As of Sept 19, 1.75% to 2.00% per year
- When Fed lowered its fed funds target rate by a quarter of one percent this summer, It did so in the hope that borrowing for consumption or investment spending would become more attractive to individuals and firms
- Thereby staving off anticipated declines in GDP

How does the Fed affect the fed funds rate? We'll get to that in a minute

Federal Reserve Controls Two Other Interest Rate Targets

Each bank that is part of the Federal Reserve system has an account at the Fed

- Its reserve account

Main purpose of a bank's reserve account: settle payments with other banks

- Clear checks

Interest on Reserve Accounts

Does the Fed pay banks interest on the funds in their reserve accounts?

- Currently, Yes: 1.80% (as of Sept 19 2019)

That's a relatively recent development

- Until 2008, Fed paid no interest to banks on their reserve accounts

Discount rate

Banks typically meet shortfalls in reserve requirements by borrowing from one another overnight at federal funds rate

- What if the borrowing bank can't win the confidence of a lending bank?
- At that point, it has to suffer the embarrassment of borrowing directly from the Fed itself
- Borrowing “at the discount window”
- Rate Fed charges for this is **discount rate**
(primary credit rate: 2.50% as of Sept 19 2019)

Three Relevant Interest Rates

- Lowest is rate which the central bank pays on reserves deposited with it by member banks
 - **Floor rate** could be as low as 0%
- In between: **overnight interbank rate**, which central bank tries to keep within a certain range
 - In the U.S., the **federal funds rate**
- Highest is the discount rate -- in effect, a penalty rate

Federal Reserve Control over Interest Rates (1)

How does central bank act keep the overnight interbank rate within the targeted range?

Open market operations

Let's say a bank finds itself with excess reserves at the end of day

- Those reserves are only earning interest, if at all, at floor rate
- So bank has an incentive to get a better rate of return on those reserves
- Can get it by lending to another bank at interbank rate

Federal Reserve Control over Interest Rates (2)

But what if banking system as a whole is awash with excess reserves?

- Individual banks will compete to lend in the interbank market by lowering the interest rate they'll charge a borrowing bank
- That tends to drive down the interbank rate toward the floor rate (or zero)
- More specifically, it tends to drive down the interbank rate past the lower edge of central bank's targeted range

Federal Reserve Control over Interest Rates (3)

At this point, central bank has to take action to keep the interbank rate from sinking below targeted range

Conducts open market operations

- At any given moment the Fed has a large quantity of Treasury bonds in its portfolio
- Banks likewise have a large quantity of Treasury bonds in their portfolios
- Generally speaking, these bonds, being long-term financial instruments, will pay a rate of interest higher than the overnight interbank rate

Open Market Operations: Case of Excess Reserves

- Central bank will offer to sell Treasuries to member banks
- If member banks accept, they will pay for these Treasuries with their excess reserves
- The fact that excess reserves will go for Treasuries rather than overnight lending will alleviate downward pressure on the interbank rate
- Keep interbank rate within the range desired by the central bank

Open Market Operations: Case of Shortage of Reserves

If banking system as a whole is short on reserves, there will be upward pressure on overnight interbank rate

- Central bank offers to buy Treasuries from individual banks
- Central bank credits the reserve accounts of those banks

Changes in Composition of Banks' Asset Portfolios

In either case, the effect of open market operations is to change the composition of banks' asset portfolios

- Sometimes more cash (in the form of reserves)
- Sometimes more longer-term assets (Treasury notes and bonds)

Open market operations do not change level of net financial assets held by banking system as a whole

Week 4: Part 6

Monetary Policy in Sovereign Nations

Yes, this gets complicated

But wait ... there's more!

Reserve requirements ... or No reserve requirements? (1)

Percentage of deposits which an individual bank must keep by law or central bank policy

- In cash
- Or in its reserve account at central bank

While U.S. imposes reserve requirements on banks, other countries do not

- Canada does not

Monetary Policy in Sovereign Nations

Reserve requirements ... or No reserve requirements? (2)

Does not mean that Canadian banks are less safe than U.S. banks

- Just means that their safety is enforced in other ways

Also does not mean that banks in other countries are free to make more loans than U.S. banks

Remember: MMT stresses that banks lend when they spot profitable lending opportunities

- Satisfy any reserve requirements after the fact

Central Bank Can Affect Longer-Term Interest Rates

Suppose the Fed sells a large quantity of 10-year Treasury bonds from its portfolio

This puts **downward pressure on market price** of these 10-year Treasuries

Since the price of bonds and their effective interest rates vary **inversely** with one another, **effective interest rate will rise** on these bonds

Federal Reserve Response to Financial Crisis (1)

In normal times central bank open market operations are implemented through purchase and sale of Treasury bonds

- Very safe, highly tradeable assets

in times of crisis, the central bank, as part of its lender-of-last-resort function may purchase other **less safe, more illiquid** assets from banks

- This provides banks with an injection of reserves

Federal Reserve Response to Financial Crisis (2)

Fed bailed out very largest banks during the Great Financial Crisis

- Purchased bad debt from the banks in the Troubled Asset Relief Program (TARP)
- Quantitative Easing (QE)

Note: In crises, keeping interest rates within a certain band becomes a much less important target for central bank policy than salvaging overall financial system

What Are Treasury Bonds For?

Treasury bonds are major balance sheet assets for both individual banks and central bank

- A question we skirted: How those Treasuries got there in the first place?

Conventional economic theory says that the Treasury sells bonds to "pay for" spending when tax revenues are insufficient

- Treasury bonds seen as plugging hole created by deficit spending
- Conventional economic theory characterizes sale of federal debt instruments as fiscal policy ("what the Treasury does")

MMT View of Treasury Bonds (1)

Federal government, in its sovereign capacity as the currency issuer, creates money by spending it into economy

- Government then pulls that money back out of the economy via taxation
- People wouldn't have the currency with which to pay their taxes if the government hadn't spent that into the economy first

MMT View of Treasury Bonds (2)

Similarly, when the Treasury sells bonds, the purchasers must have somehow acquired the currency with which to make those purchases

- That can only have happened if the government has spent that currency into the economy first
- Therefore, Treasury bond sales don't "pay for" government spending any more than taxation does

MMT View of Treasury Bonds (3)

What then is the function of Treasury bonds?

- Offer an alternative to cash in the portfolios of the non-government sector of the economy
- Provide a very safe financial asset that serves as the foundation of the financial system
- Benchmark against which all other financial assets are valued

MMT View of Treasury Bonds (4)

But it would be better to say that MMT believes that the conventional view -- a sharp distinction between fiscal policy and monetary policy -- is misleading

In point of fact, Treasury and the Federal Reserve cooperate quite closely on a daily basis

Fiscal policy and monetary policy actually blur into one another

Effectiveness of Monetary Policy

So, if the main tool of monetary policy is central bank moderation of interest rates, how effective is that tool?

One Extreme: 1979-1982 Experience (1)

- If the government believes that inflation is "out of control"; and ...
- If the government believes that "excessive" wage increases are the main driver of that inflation; and ...
- If the government believes that "excessive" wage increases reflect "excessive" bargaining power on the part of labor; and ...
- If the government believes that labor's bargaining power can be "tamed" by throwing lots of people out of work; and ...
- If the level of employment is a function of aggregate demand; and ...

One Extreme: 1979-1982 Experience (2)

- If aggregate demand is significantly affected by individuals' and businesses' ability to borrow; and ...
- If jacking up interest rates to very high levels will diminish the demand for credit; and ...

Then ...

One Extreme: 1979-1982 Experience (3)

Then ... Jacking up interest rates will choke off credit, leading to:

- Fall in aggregate demand; and ...
- Fall in employment; and ...
- Fall in labor's ability to bargain for higher wages; and ...
- No growth in money wages -- and perhaps fall in real wages; and ...
- Eventual relief from the part of inflation attributable to wage increases

So, yes, **at the extreme**, changes in interest rates can have a tremendous impact on the overall level of output, income and employment

On the other hand ...

We can also have a situation where interest rates have fallen to very low levels

- Even zero
- Even negative rates when price movements are taken into account
- And yet where businesses don't want to borrow because they don't expect to make profits off the investments they would fund with that borrowing

So you can have a situation where there's all kinds of money available for borrowing, but nobody wants to borrow even if it's effectively free

Liquidity Trap

In the General Theory, Keynes described this situation as a "**liquidity trap**"

This is what we had in the depths of the Great Depression and, I would argue, what we had at the deepest points of the Great Financial Crisis

So, no, at the other extreme, changes in interest rates might not have any favorable impact on the overall level of output, income and employment

Composition of Output

A major macroeconomic problem, along side unemployment and inflation

At the outset of World War II, both Britain and the United States faced the challenge of moving

- From high unemployment and low capacity utilization
- To high employment and high utilization
- But with restrictions on consumption so as to divert resources to the war effort

J.M. Keynes: *How to Pay for the War* (1940)

Inflation and rationing could be used to try to change composition of output and consumption

- Those methods would reinforce existing social inequalities
- Eventually become politically unviable

Keynes recommended deferred compensation

- Require people to save significant portion of their income
- But guarantee that they could use that for higher consumption once the war was over

Composition of Output Redux

Composition of output receded as major economic problem after World War II

We argue:

- It's back
- Human-caused climate change poses an existential threat to all humanity on the scale that fascism posed to western democracies and to the Soviet Union during World War II
- What we've been producing is killing us

What Shall Be Produced?

Our answers to that question must change

- Change will entail considerable social and economic disruption
- Change will encounter political resistance
- Both from those with vested interests in the status quo and
- From those frightened by change

Changing the Composition of Output and Social Justice

However: If we carefully think through the problem of changing the composition of output ...

- And couple it with a program which enhances social justice
- We stand a better chance of overcoming that opposition and achieving the changes in production needed

Can we bring values into the discussion?

To discuss macroeconomic policy you must bring values into the discussion

You don't have to share our values

We're bringing them in here mainly so that you can get an idea of what an **MMT-informed macroeconomic policy proposal** looks like

Green New Deal (1)

A political program which holds that:

- The challenge of climate change is the moral equivalent of war
- Responding to climate change will entail vast changes in how we use economic resources
 - Raw materials
 - Production processes
 - Human resources

Green New Deal (2)

GND believes:

- Political support for the response to climate change will depend on majority of the population convincing themselves that they'll be getting a better deal in the end
- Best way to win that support is to combine efforts to deal with climate change with efforts to address long-standing inequalities and injustices

"How to Pay for the Green New Deal"

- 2019 Levy Economics Institute paper
- Yeva Nersisyan and L. Randall Wray
 - Wray is co-author of our textbook
 - One of the founders of modern monetary theory
- Paper consciously emulates approach taken by Keynes in "How to Pay for the War" in 1940



Working Paper No. 931

How to Pay for the Green New Deal*

by

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May 2019

"How to Pay for the War" Was Misnomer

War was going to be paid for by the British Treasury spending money into the economy

Real question was how to redirect economic resources into war production while maintaining domestic consumer production at a level which the population would find politically tolerable

Keynes argued that deferred compensation would substantially mitigate inflationary pressures on the prices of consumer goods

"How to Pay for the Green New Deal" Is Also a Misnomer (somewhat)

The Green New Deal is going to be paid for by having the government, acting in its capacity as sovereign currency issuer, electronically credit the bank accounts of individuals and firms from whom it is purchasing GND goods and services

What Nersisyan and Wray Paper Is Really About (1)

Real questions Nersisyan and Wray are addressing are:

- How to estimate the resources needed for the GND
 - They assume that because we are under deadline to implement the GND, it will for a time require full employment and full capacity utilization
- How to estimate the amount of currently unused resources which can be mobilized for the GND
 - Human resources
 - Capital resources

What Nersisyan and Wray Paper Is Really About (2)

- How to estimate quantity of resources that can be redirected to GND by freeing them up from areas of the economy which will be wound down by the shift to the GND
 - Fossil fuel exploration and production
 - Private health insurance to be replaced by single-payer ("Medicare for All" or "M4A")
- After redirecting resources from pre-GND sectors of the economy, how to estimate remaining shortfall in resources which *may* require temporarily lower consumption
- How to effect that temporarily lower consumption via mixture of taxation, deferred consumption, inflation and other means

A Budget for the Green New Deal (1)

Nersisyan and Wray "cost out" expenses in the way you might do in business with a spreadsheet

They **don't** start by simply adding up the projected costs of various GND-related programs

- Arriving at a terrifying \$93 trillion figure
- And then throwing up their hands and wailing, "How are we ever going to pay for this?"

A Budget for the Green New Deal (2)

Nersisyan and Wray start by asking:

- What scale of resources is needed?
- What our current resource picture looks like?
- What resources can be diverted from other uses?
- What new resources need to be raised?

Significant Finding

Using a single-payer approach to health care can achieve a reduction in the percentage of GDP spent on medical care from 18% to 10%

- In line with other advanced countries' health care spending
- For which those other countries get better health outcomes

This alone will go a long way toward freeing up resources for dealing with climate change

Topics Discussed in *How to Pay for the Green New Deal* (1)

- Role that a Job Guarantee will play as part of the Green New Deal
- Call for ending America's "forever wars"

Examination of a Macroeconomic Policy Initiative: The Green New Deal

Topics Discussed in *How to Pay for the Green New Deal* (2)

Nersisyan and Wray caution that taxation on the rich cannot alone fund the Green New Deal

But nonetheless call for increased taxation on the income and wealth of the rich

- **Not** to "pay for" the Green New Deal
- From MMT perspective, taxes do not "pay for" spending
- Purpose of heavy taxation of rich is "to reduce inequality" and to "restore democratic governance". (GND, 32)
- Stephanie Kelton says, "Tax the rich because they're too damn rich"

Conclusions from *How to Pay for the Green New Deal* (1)

Nersisyan and Wray conclude:

- Percentage of nation's resources which must be moved to GND is much less than percentage needed to be moved to war production during World War II
- Even in World War II
 - Increases in prices were much less than increases in federal spending (as percentage of GDP)
 - Or increases in federal deficit (likewise as GNP percentage)

Conclusions from *How to Pay for the Green New Deal* (2)

"[T]he resource needs of the GND are relatively modest in comparison with the WWII experience." (49)

"Even huge wartime demands on resources do not necessarily lead to high inflation, so long as countervailing measures are taken." (49)

"Even today, it is likely that excess capacity is sufficient to handle the expected increased demand on resources that will result from GND spending, so long a programs are phased in at a measured pace." (49)

Examination of a Macroeconomic Policy Initiative: The Green New Deal

Conclusions from *How to Pay for the Green New Deal* (3)

Should resources need to be redirected from domestic consumption to the GND, Nersisyan and Wray recommend implementing a deferred consumption program

- Similar to that which Keynes proposed in 1940

Conclusions from *How to Pay for the Green New Deal* (4)

"We already have the financial wherewithal needed to afford whatever is technologically possible. We do not need to go hat-in-hand to rich folks to get them to pay for it. We do not have to beggar our grandkids to pay for it. We do not have to borrow from China to pay for it. We do not have to get the Fed to "print money" to pay for it. All we need to do is to remove the self-imposed constraints, the myths, and the misplaced morality; then budget for it, approve the budget, and spend. No new spending process is required. Follow the normal procedures that the Fed and Treasury have developed. That is how you pay for it." (7)

Week 4: Part 7

Examination of a Macroeconomic Policy Initiative: The Green New Deal

If you understand ...

How to Pay for the War ...

... and ...

How to Pay for the Green New Deal, ...

... **then** you understand this course and Modern Monetary Theory

Week 4: Part 7

Examination of a Macroeconomic Policy Initiative: The Green New Deal

Thank you very much