MACROECONOMICS

ED LANE

INTRODUCTION

Our first topic: The history of economic thought from the Renaissance forward

- Pre-classical School
- Classical School
- Neo-classical School
- Keynesian and Neo-Keynesian
- Monetarism
- New Classical School
- Behavioral Economics
- Modern Monetary (Money) Theory

HISTORY OF ECONOMIC THOUGHT

- Pre-classical
  - The discovery and use of a medium of exchange to support trade predates the common era by 1,000s of years
  - In the 13th to the 15th C, Europe was coming out of the Dark Ages with a re-emergence of trade and a new class of people – merchants – who had no assigned place in the traditional feudal order
  - Economic thought is believed to have begun in western Europe in the 16th C.
    - The European population remained relatively flat following the Black Plague – around 1350 – which was estimated to have killed as many as 200 million people
    - Population growth picked up in the 16th C and with it came increased demand for goods and land
    - This led to price increases for consumer essentials, like grain, and caused the "Great Inflation" of the 16th C. (about 1.5%!)
      - One of the questions being explored at this time was the issue of the value of a currency – whether it was worth whatever society said it was worth or whether the value was intrinsic that is, based on precious metal content

HISTORY OF ECONOMIC THOUGHT

- Pre-classical
  - The Great Inflation in the mid-1500s led the first economists to try to discover its cause
    - Some focused on merchants who were accused (correctly) of holding back goods since limiting supply leads to higher prices
    - Others focused on the intrinsic value of coins and a possible dilution of the precious metal content or "clipping"
  - From the 1550s onward, the view turned from a decline in the intrinsic value of coins to an increase in the sheer quantity relative to the supply of goods – the increased quantity resulting from a doubling of silver output in Europe around the turn of the century followed by an explosion of Spanish-owned silver mining in Latin America
    - This was the origin of the Quantity Theory of Money that is still followed by many economists today; we will discuss this later

HISTORY OF ECONOMIC THOUGHT

- Pre-classical
  - Following the focus on the Great Inflation of the 1500s, came the "Dutch Puzzle" of the 1600s.
    - The Netherlands, which was formed in the 1580s, transformed itself from a collection of poor, sleepy villages into probably the wealthiest and most powerful country in the world by the early 1600s
    - This was achieved by maintaining a favorable balance of trade with foreign countries – exporting high value manufactured goods and importing low value commodities
    - This led other countries in Europe to follow suit and adopt the "mercantilist" policy of exporting as much high value goods as possible and importing goods with as little value as possible
      - Mercantilists saw trade as a zero-sum game, valuing exporters and devaluing importers (does this sound familiar?)
      - Mercantilists were more interested in accumulating wealth (gold) than promoting domestic employment
      - And this led to the development of protectionist policies – tariffs, currency controls, quotas and subsidies – as a central role of government
      - A consequence of Mercantilism was the ascendancy of bureaucrats to run the state and merchants to finance it

HISTORY OF ECONOMIC THOUGHT

- On to the Classical School
  - Mercantilism continued throughout much of the 18th C.
  - In 1776, Adam Smith (1723-1790) published *Wealth of Nations* promoting minimum government influence in the economic affairs of individuals and businesses, or *laissez faire*, the virtues of specialization, free trade and competition
    - Smith promoted the idea of how rational self-interest in a free market economy would lead to economic well-being for all of society
    - This led to the concept of the "invisible hand," that each person, pursuing the activity that maximizes personal wealth in a competitive market ends up, in the aggregate, maximizing a nation's prosperity
    - Smith argued that the most important characteristic of a market economy was that it permitted a rapid growth in productive abilities and this stimulated worker specialization which, in turn, led to greater productivity
    - While increased specialization could cause harm to workers whose jobs became ever more narrow, repetitive and boring, Smith maintained that the laissez faire economy would self-correct over time

HISTORY OF ECONOMIC THOUGHT

- Classical School
  - Adam Smith continued:
    - Smith believed that consumption was the sole purpose of production. This led to his belief that the mercantilist aim to increase exports at the expense of domestic consumption was irrational
    - According to Smith, wealth increased through accumulation of capital through saving and investment.
    - Taxation diverts income from private accumulation to state consumption and, therefore, subtracts from wealth creation (the state was, by definition, unproductive)
    - According to Smith, the state had four responsibilities: defense, administration of justice, education, and public works
    - Crucially, and still believed by many, was that Smith argued state spending "crowded out" productive private spending

HISTORY OF ECONOMIC THOUGHT

- Classical School
  - Following Smith, three economists gained significant influence:
    - Jean-Baptiste Say (1767-1832), after whom "Say's Law" is named. Say promoted the idea that supply creates its own demand (otherwise, production wouldn't take place), the implication of which was that economic growth was best stimulated by focusing on production rather than consumption/demand. Money was irrelevant since the focus was on "real" growth.
    - Robert Malthus (1766-1834), whose hypothesis was that the natural (unchecked) rate of population growth always exceeds the growth of the means of subsistence – implying that population growth was actually held in check by starvation and other natural limits. One such limit was the demand for a higher standard of living which would lead to lower birth rates. Malthus's actual conclusion was that since humans have *not* all starved, economic choices must be at work, and it is the job of an economist to study those choices. Malthus was responsible for laying the foundation for Classical economics by being the first to explore the idea of a demand schedule (demand linked to prices).
    - David Ricardo's (1772-1823) 1817 *Principles of Political Economy and Taxation* became the fundamental treatise of the Classical School of economics. Prices, he said, were not determined by labor costs (wages times hours) but by labor hours alone. Ricardo's *Principles* also posited the famous (to economists) theory of comparative advantage that so long as a nation specializes in producing goods where it has a comparative (not absolute) cost advantage, there will always be mutual gains from trade. This is still taught in graduate economics today. This view towards trade is foundational in economic thinking today, supporting the argument in favor of free trade.

HISTORY OF ECONOMIC THOUGHT

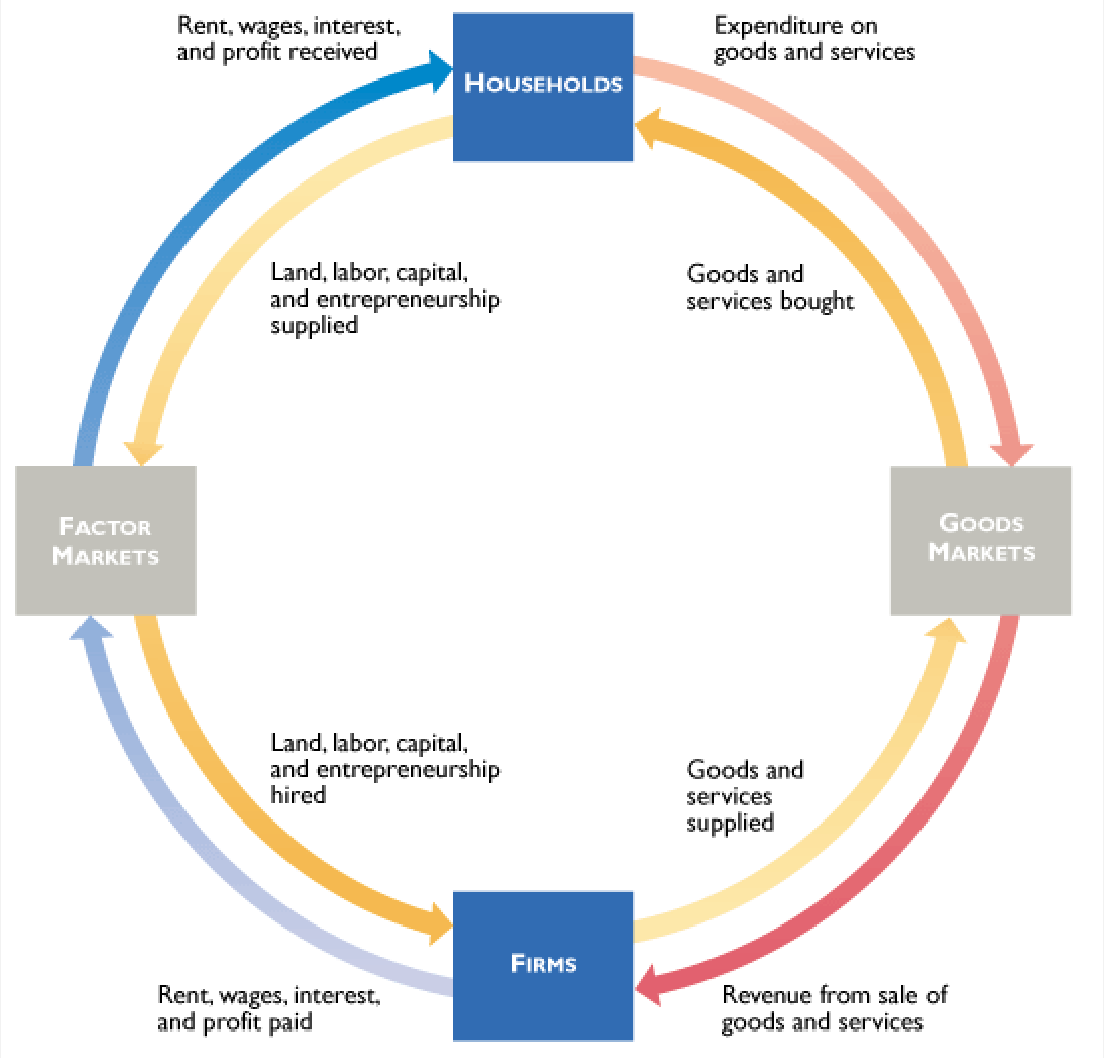
- Classical School
  - Next came Karl Marx (1818-1883). It was actually after his death that several of his inner circle of companions developed the Marxian school of economics
    - Where Classical economists said that full employment was the natural condition of a capitalist economy, Marxists said that unemployment was inevitable and would become so intolerable that it would result in the overthrow of capitalism
    - Business/economic cycles will be characterized by a reserve army of the unemployed, falling profitability, business crises, increasing concentration of industry and mounting misery and alienation of the working class (sound familiar)
    - Marx's view was that the most beneficial consequence of capitalism was growth in productivity. But productivity also resulted in an increase in capital and a decrease in labor. Marx saw an inherent exploitation of labor and economic injustice in the capitalist system, leading to revolution of the working class
    - For a period of time, the growth of social balance between business, labor and government took revolution off the agenda and diminished the Marxian view. We have to wonder about that balance today.

HISTORY OF ECONOMIC THOUGHT

- Classical School
  - In summary, the classical school of economics asserted that a free (unencumbered) market would ensure full employment of economic resources, including labor
  - Deviations from full employment are caused by economic and political events and would be corrected by automatic adjustment in prices, wages and interest rates
  - Classical economists believed in Adam Smith's "invisible hand," self-interest leading to maximization of economic well-being, a self-regulating economic system, capital accumulation and free trade
    - In other words, prices, wages and interest rates are flexible and markets always clear
  - They also believed in division of labor, the law of diminishing returns, and the ability of the economy to self-adjust in a laissez faire system devoid of government intervention

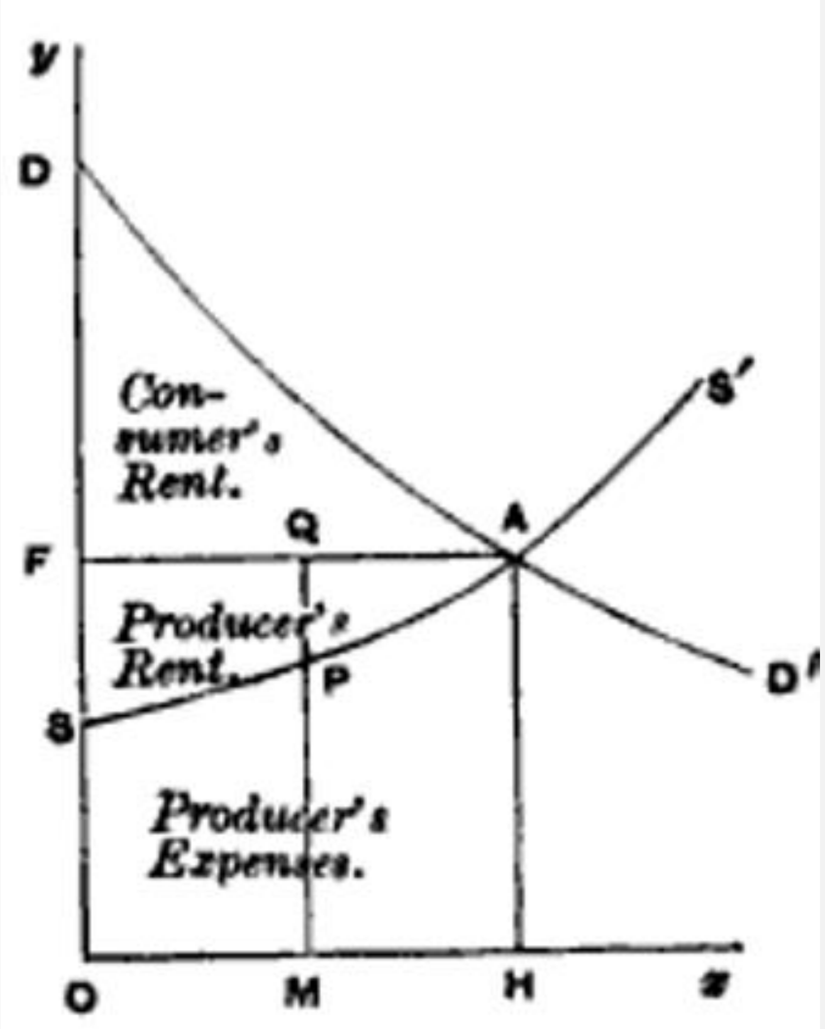
HISTORY OF ECONOMIC THOUGHT

- Classical School
  - This "circular flow" model of classical economics, still taught in economics classes today, supported the notion that wages may deviate but eventually return to their natural rate of subsistence, known as the "iron law of wages"
  - Not reflected in the classical school:
    - The financial sector which takes savings from households and injects investment to businesses and
    - Government (taxes, transfers and subsidies)
    - Exports and imports

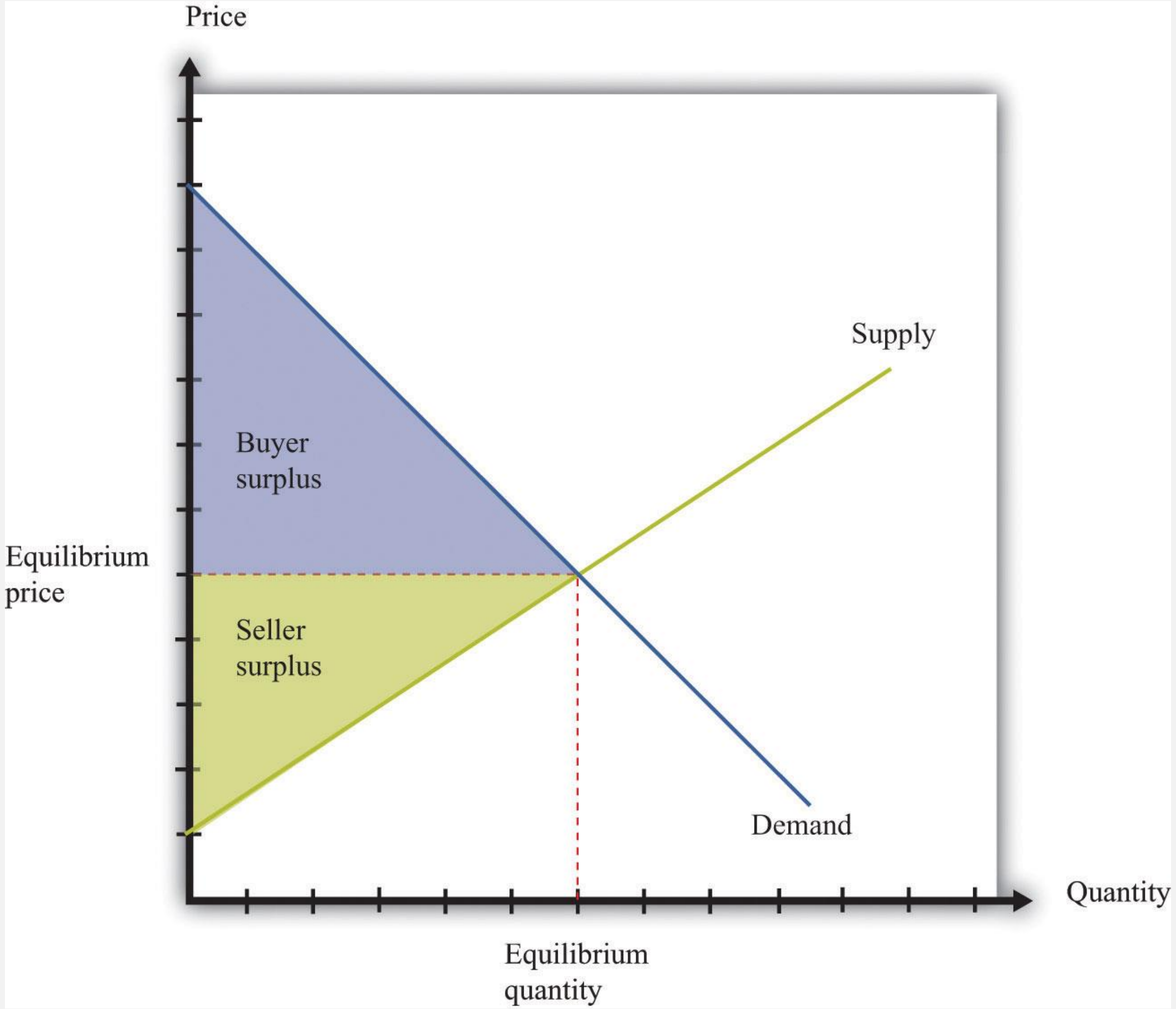


HISTORY OF ECONOMIC THOUGHT

- On to the Neoclassical School
  - While David Ricardo provided methodological rudiments to neoclassical theory, Alfred Marshall (1842-1924) is seen as the father of the neoclassical school
  - His goal was to improve the mathematical rigor of economics and transform it into a more scientific profession (a focus still prominent in graduate economic education)
  - His *Principles of Economics* shaped the teaching of economics. He was the first to develop the standard supply and demand graph which is foundational in today's economic teaching
  - Marshall's work moved the study of economics away from the classical focus on the market economy and instead popularized it as a study of human behavior



HISTORY OF ECONOMIC THOUGHT



HISTORY OF ECONOMIC THOUGHT

- Neoclassical School
  - Sometimes referred to as "marginalist" economic theories (relating to marginal utility of goods), the neoclassical school emphasized value rather than price, and demand and supply as the principal drivers behind production, pricing and consumption (rather than cost driving price in the classical school view)
  - Neoclassical models assume everyone has free access to information they require for economic decision-making, thus optimizing the value of output (consumption)
  - Three basic tenets:
    - People have rational preferences between outcomes that can be identified and associated with values.
    - Individuals maximize utility and firms maximize profits.
    - People act independently on the basis of full and relevant information.
  - Marxian economics is rejected on the belief that the market system will ensure a fair allocation of resources and income distribution
  - Neoclassical economics has become the dominant economic doctrine in the study and teaching of economics in the West, especially in the United States

HISTORY OF ECONOMIC THOUGHT

- Neoclassical School
  - Neoclassical economists maintain that the forces of supply and demand lead to an efficient allocation of resources
    - The value of a product is driven by consumer perception (it is said that this view contributed to the Great Financial Crisis as investors placed no effective ceiling on the value of synthetic financial instruments related to mortgage pools)
  - A host of economic theories have emerged from neoclassical economics, including:
    - neoclassical growth theory where the determinants of output growth are technology, labor, and capital, and savings and capital accumulation together with technical progress are the sources of economic growth
    - neoclassical trade theory (free movement of goods, services and capital, unimpeded by government regulation, will lead to rapid economic growth)

HISTORY OF ECONOMIC THOUGHT

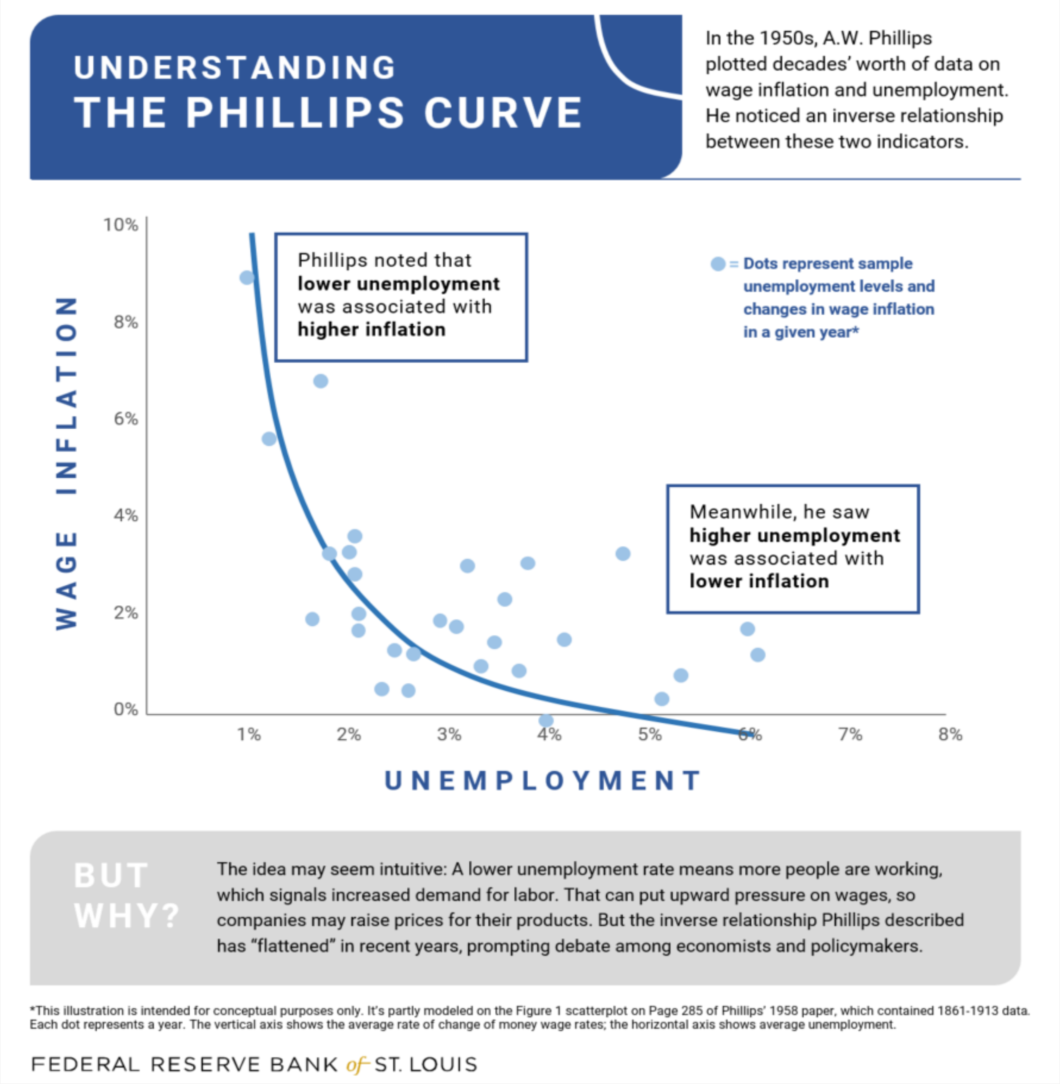
- Neoclassical School
  - Critics of the neoclassical school claim that the neoclassical approach does not accurately describe how economies work, maintaining that the assumption that consumers behave rationally ignores the vulnerability of human nature to emotional responses
  - Critics also challenge its "normative" bias, that is, it does not focus on explaining actual economies but instead focuses on describing a theoretical world

HISTORY OF ECONOMIC THOUGHT

- Keynesians (aka Cambridge Keynesians)
  - Marshallian economics was challenged in the 1930s, after John Maynard Keynes' *The General Theory of Employment, Interest and Money* (1936). Although previously a leading Marshallian, Keynes turned the young Cambridge economists against the old Marshallian establishment
  - Keynes (1883-1946) described in *The General Theory* how, especially during recessions, economic output is strongly influenced by aggregate demand which is affected by many factors and could become erratic in contrast to Say's Law that demand was a consequence of supply
  - Keynes noted that unstable market economies can result in inefficient macroeconomic outcomes – recessions when demand is low and inflation when demand is high
    - Aggregate demand is the principal factor affecting employment and the business cycle (this goes back to the idea that the aggregate does not reflect the sum of individual behaviors as defined by Marshall in the neoclassical school)
    - There is no automatic tendency to full employment because people could chose to hold money rather than spend it, perhaps because of uncertainty
    - These unstable conditions are best addressed by government intervention with both monetary and fiscal policies

HISTORY OF ECONOMIC THOUGHT

- Neo-Keynesian (aka Neoclassical-Keynesian Synthesis)
  - Paul Samuelson (1915-2009) considered one of the founders
  - Dominated macroeconomics in the post-war period and still does
  - Among other concepts, the Neo-Keynesians introduced the Phillips Curve (A.W. Phillips, 1861-1957) to help explain the causes of inflation, namely that inflation and unemployment have a stable and inverse relationship – low unemployment was associated with high inflation, which was another way of saying that inflation was caused by high demand for labor



HISTORY OF ECONOMIC THOUGHT

- Comparing Keynes and the Neoclassical School
  - The so-called Chicago School (aka the "freshwater" or "sweetwater" school of economics, encompasses Carnegie Mellon, Northwestern, Cornell, the University of Minnesota and the University of Rochester) espoused laissez-faire ideals. They believed the free market could correct and guide itself more efficiently without government involvement
  - Saltwater economists (from the University of California, Harvard, Princeton, Penn, Columbia and others) view government regulation and discretionary monetary and fiscal policy as an important and necessary part of overseeing the economy. They do not view consumers in the marketplace as perfectly rational
    - Coastal schools believed the government could and should help to regulate the economy by controlling interest rates and budgets to avoid inflation or recession.
  - While Keynes' focus on monetary policy was influential on the Chicago (Sweetwater) School, his focus on fiscal policy also gave support to the Saltwater School
  - Freshwater economists point to the 1970s as an example of government intervention causing high unemployment and inflation which, they claim, otherwise wouldn't have occurred

HISTORY OF ECONOMIC THOUGHT

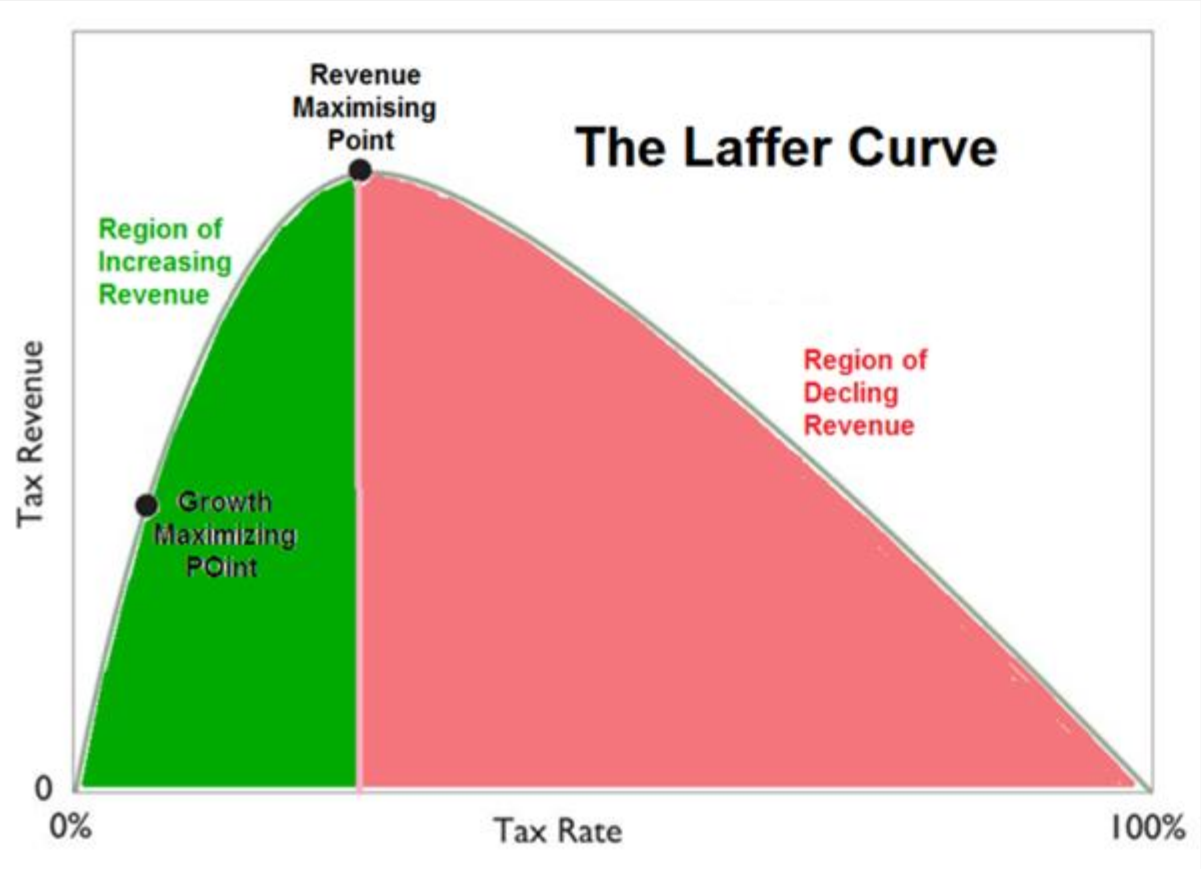
- Monetarism
  - … is the school of macroeconomics spearheaded by Milton Friedman (1912-2006) at the University of Chicago in the 1960s and 1970s
    - "Inflation is always and everywhere a monetary phenomenon"
  - Monetarism is associated with the Neoclassical Quantity Theory of Money as a challenge to the Neoclassical-Keynesian Synthesis
    - Whereas Keynes idea was that changes in effective demand was the primary determinant of fluctuations in economic activity, monetarists focus on changes in the money supply as the cause of fluctuations
    - The position evolved to articulate the "natural rate of unemployment" hypothesis, the idea that government macroeconomic policy, in the long run, is ineffective in altering the level of output or employment
    - Monetarists advocate the use of rules (initially money growth rate but now some version of interest rate targeting), rather than discretion, in the conduct of macroeconomic policy, and in particular that the government should *not* try to conduct counter-cyclical policy, but just let the business cycle run its natural course
    - The Monetarists were instrumental in breaking the post-war dominance of Keynesian macroeconomics, and setting the stage for emergence of the New Classical school in the 1980s following the Great Inflation of the 1970s

HISTORY OF ECONOMIC THOUGHT

- New Classical School
  - Led by Milton Friedman (Chicago)
  - A reversion to the neoclassical framework (laissez faire, unencumbered by government policy)
  - Emphasizes the importance of rigorous foundations based on microeconomics, especially rational expectations
    - Individuals optimize their choices given knowledge of prices, wage rates and personal assets; firms maximize profits and people maximize utility
    - Rational expectation economics believes that because people act in response to their expectations, public policy will be offset by their action
    - The rational expectation doctrine believes that markets are highly competitive and prices adjust to changes in aggregate demand
    - In the rational expectation doctrine, expansionary policies will increase inflation without increasing employment because economic actors—households and businesses—acting in a rational manner, will anticipate inflation and act in a manner that will cause prices and wages to rise – by accelerating purchases to get ahead of price increases

HISTORY OF ECONOMIC THOUGHT

- Supply Side Economics
  - Focus on marginal tax rates
  - The Laffer Curve describes the relationship between marginal tax rates and government revenue
  - Tax cuts pay for themselves



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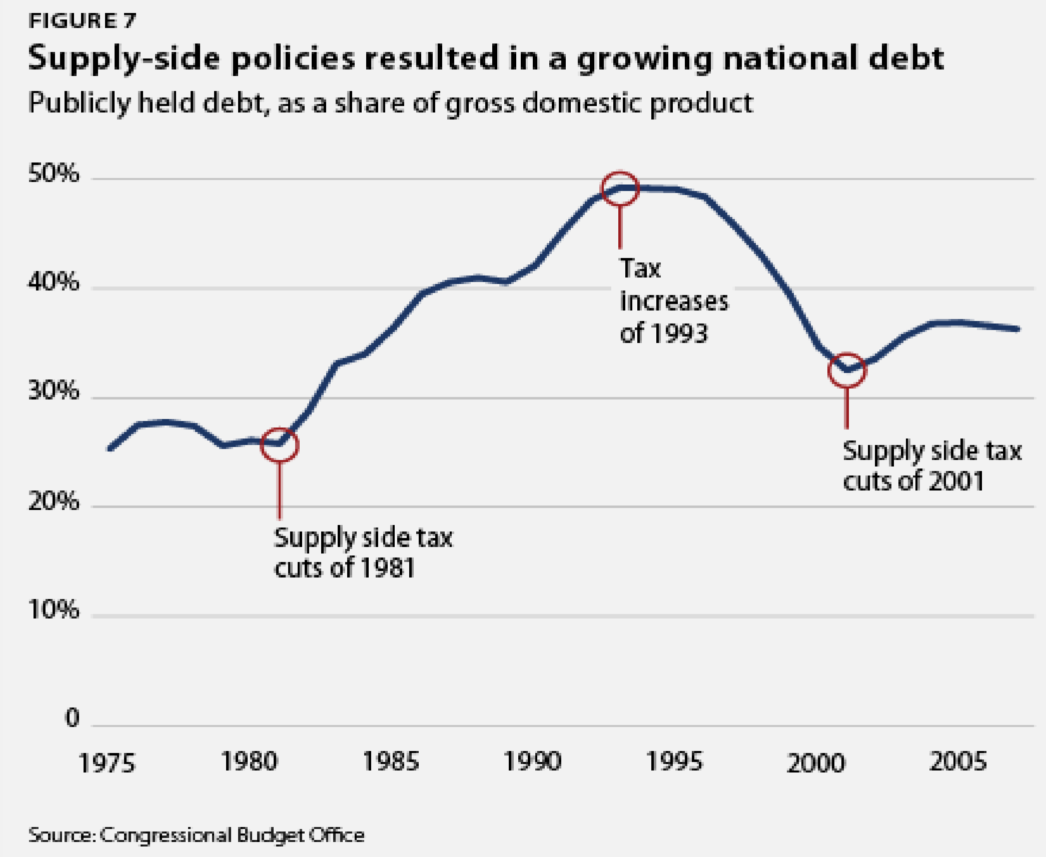
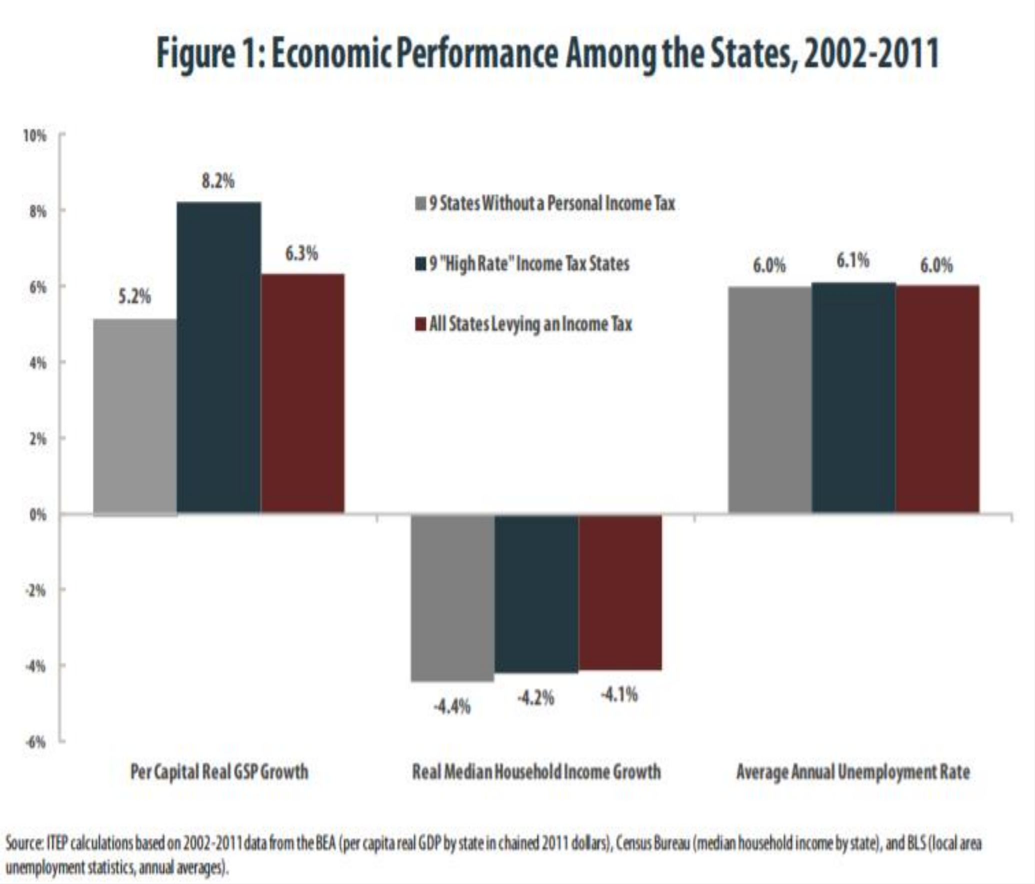


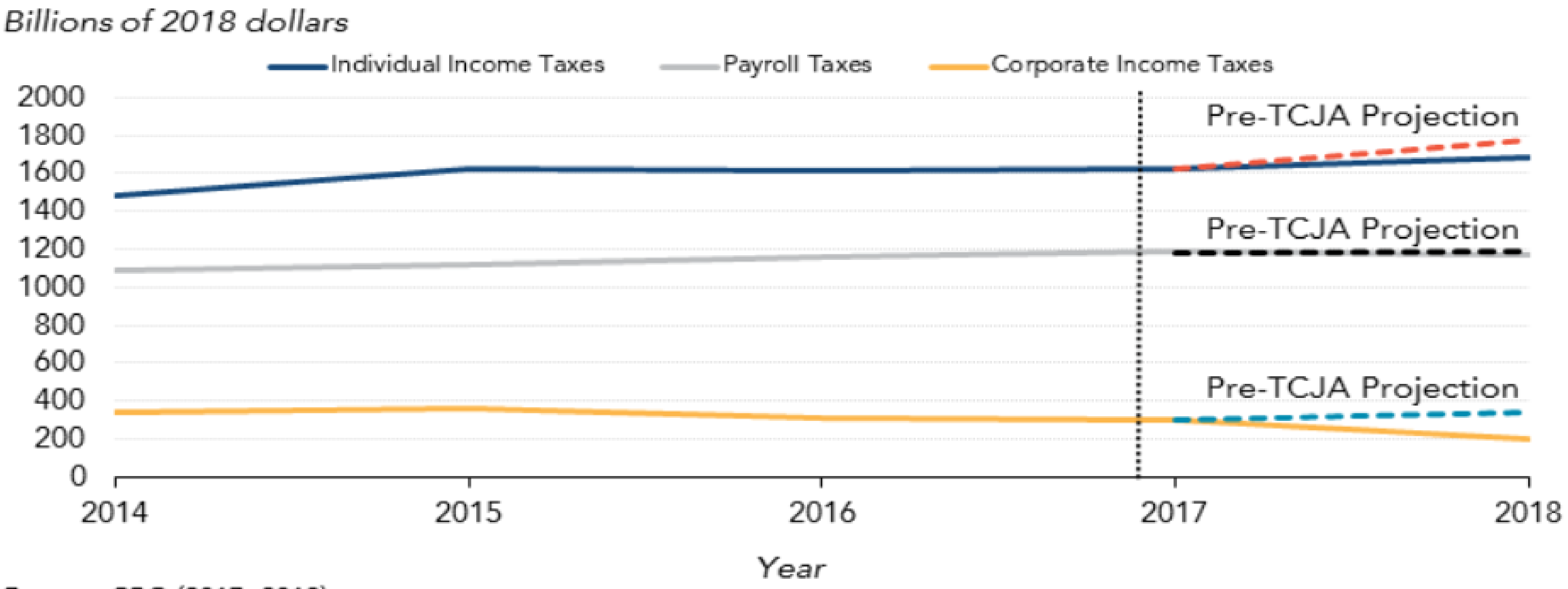


HISTORY OF ECONOMIC THOUGHT

FIGURE 2

Real Revenues by Source, 2014 - 2018

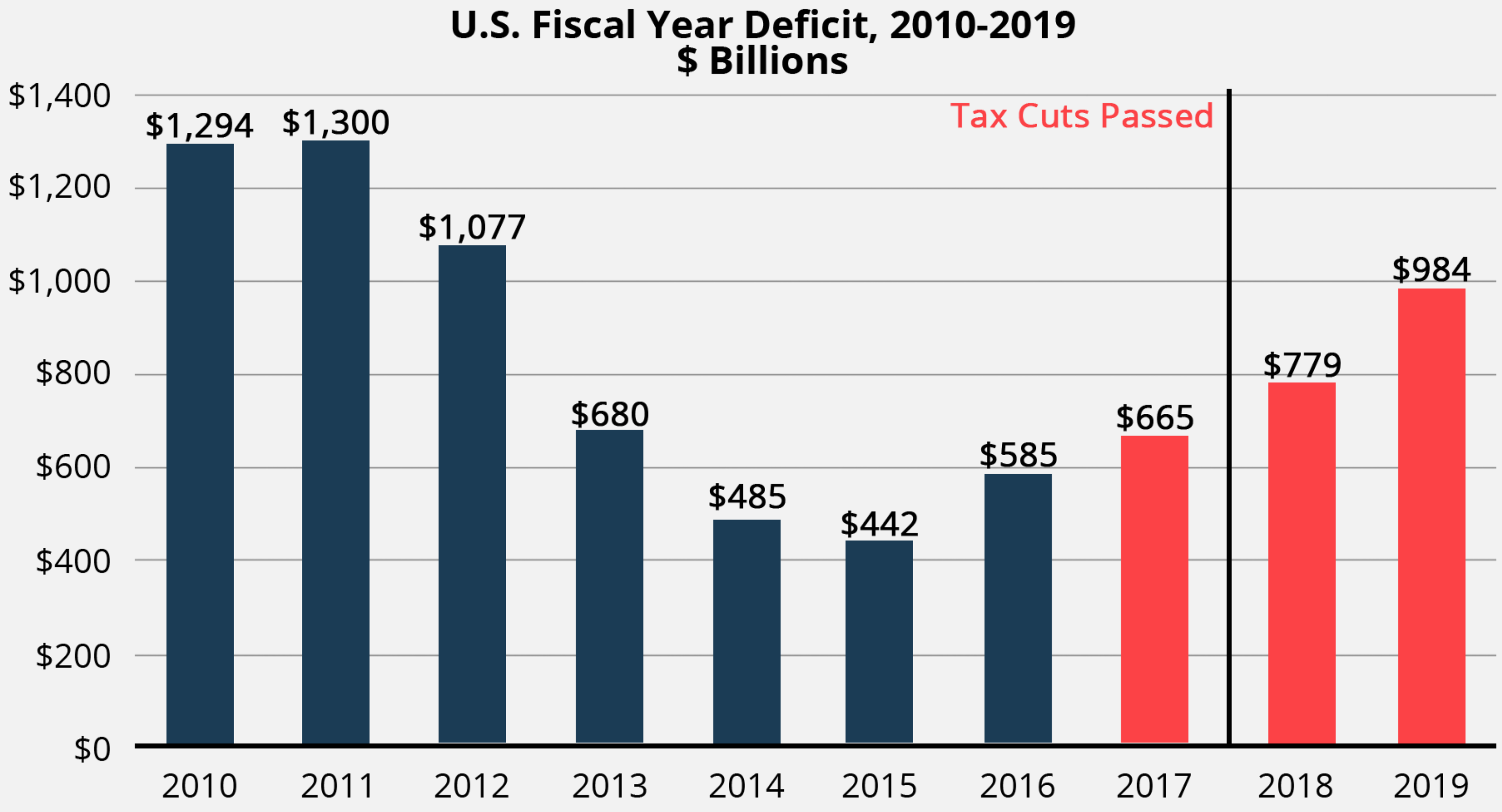
2018 Dollars



Source: CBO (2017, 2019).
Note: Projected and actual revenues are for fiscal years. Revenues for 2014-2017 were adjusted for inflation, using the calendar year average GDP price index.

HISTORY OF ECONOMIC THOUGHT

FIGURE 13: DEFICIT HAS EXPLODED SINCE TRUMP-GOP TAX CUTS



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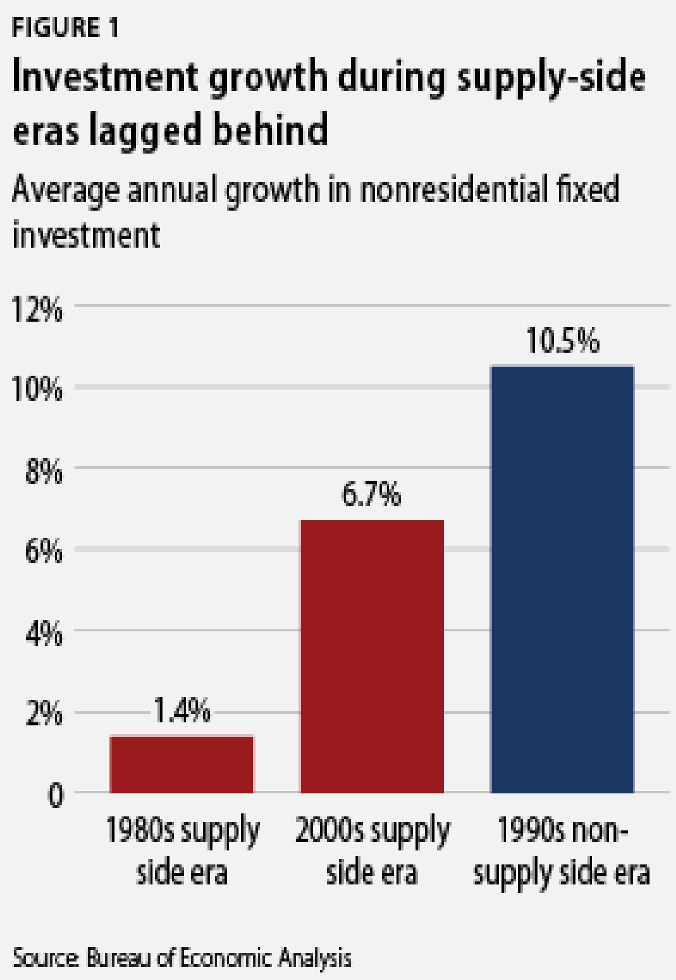

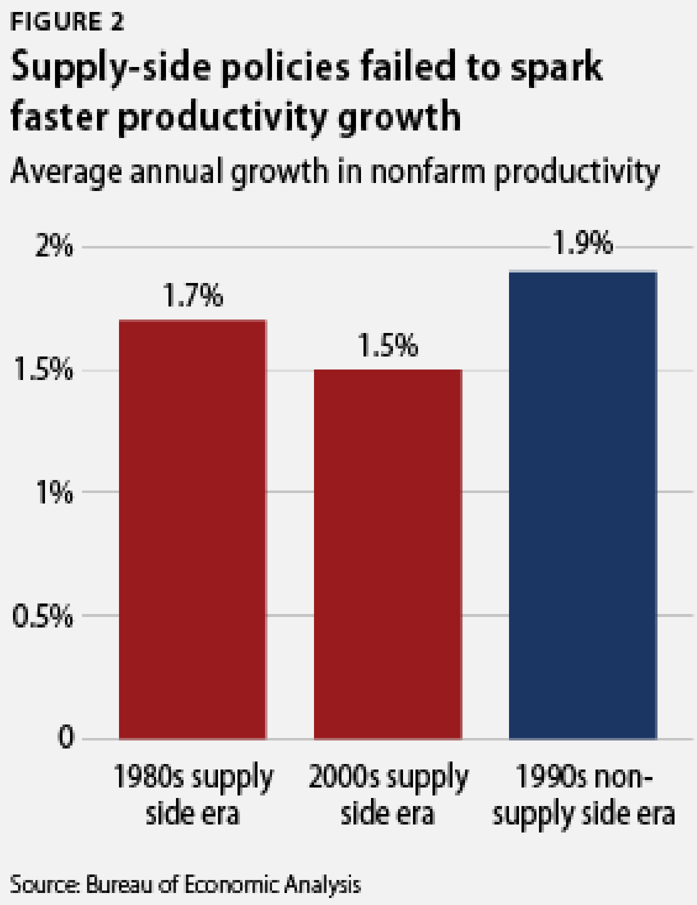

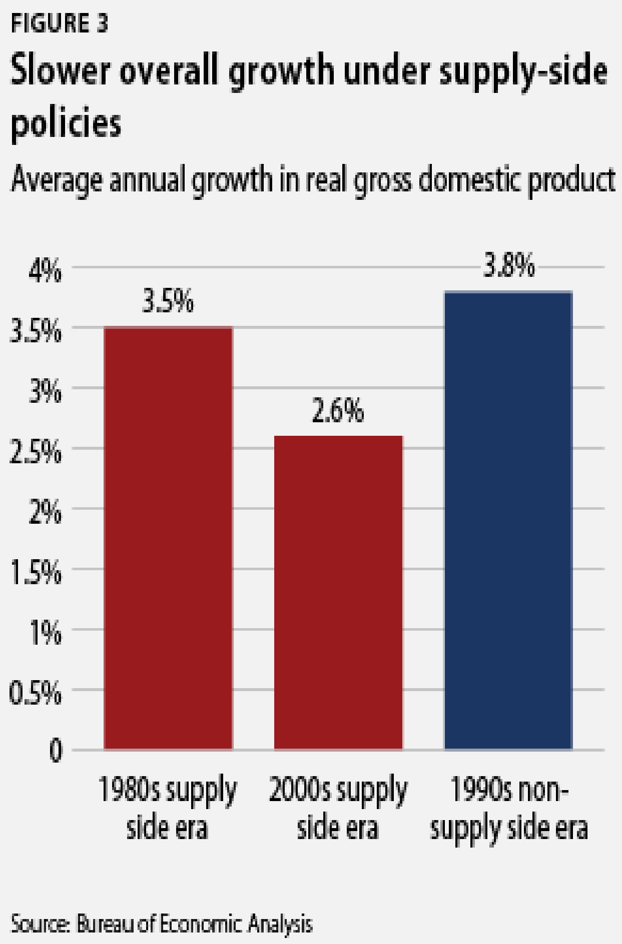

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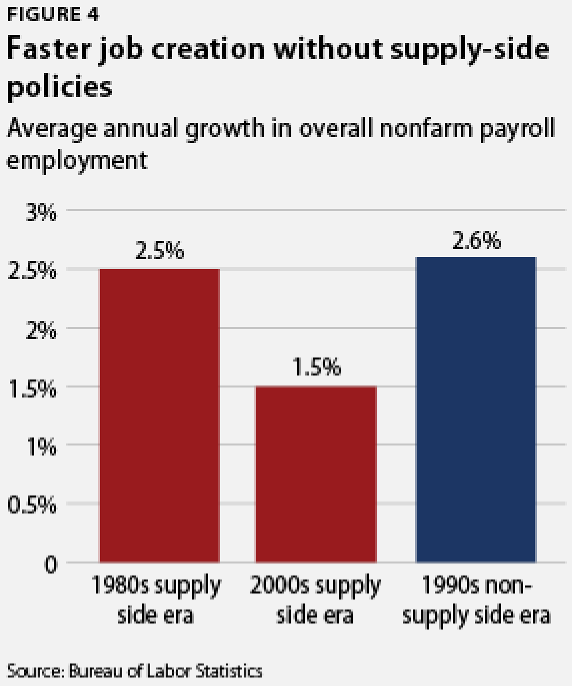

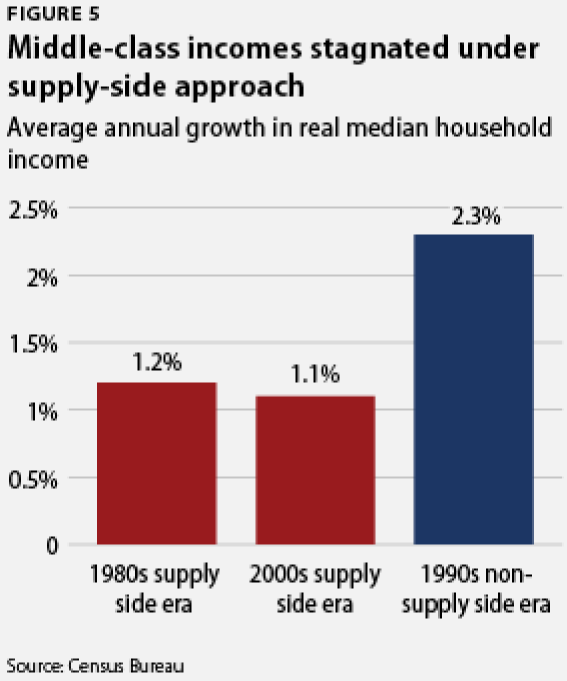

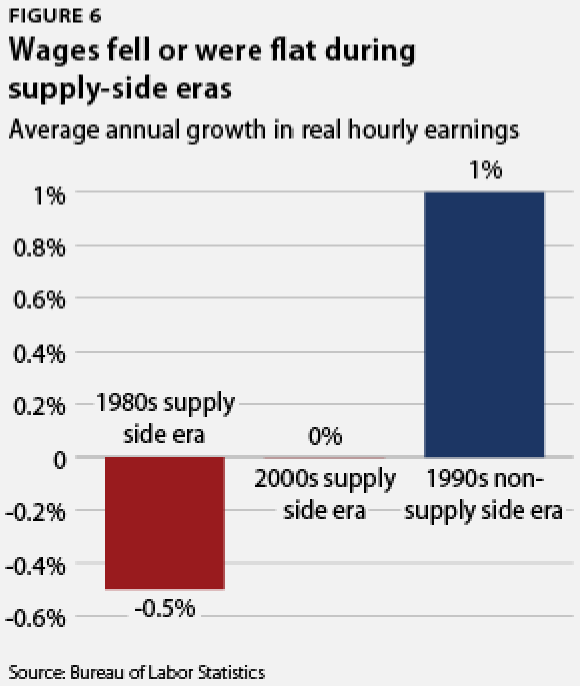

HISTORY OF ECONOMIC THOUGHT

- Behavioral Economics
  - Remember that neoclassical macroeconomics is based on the theory of rational expectations, maximizing utility and knowledge of wage rates and prices, and actions taken in self-interest
    - In neoclassical macroeconomics, taught in graduate economics programs today, human behavior can be modeled by mathematical optimization subject to budget constraints
  - In behavioral models on the other hand:
    - People have limited computational capacity - they aim to satisfy rather than maximize
    - They are strongly influenced by social networks (where copying behavior is common)
    - They often act reciprocally by making kind and generous gestures; act altruistically
    - They lack self-control and they tend to be present-biased (e.g., by discounting future benefits in favor of now)
    - They are loss averse - hating losses far more than commensurate gains
    - They are influenced to some extent by persistent cognitive biases, a systematic deviation from what is believed to be rational choice
    - Brought to the fore by psychologists Amos Tversky and Daniel Kahneman, Nobel winners in economics in 2002 (despite being psychologists)
      - Their story was told in <u>The Undoing Project</u> by Michael Lewis

HISTORY OF ECONOMIC THOUGHT

- Modern Monetary Theory (MMT)
  - Highly controversial and rejected by many mainstream economists, including the likes of Lawrence Summers and Paul Krugman, among others
    - Rejection often based on misunderstanding
  - MMT is not a prescription for how things ought to work (except for the Job Guarantee which we will come to in a future session)
    - Rather, it is a description for how things actually work
    - One does not "do" MMT, it just is

HISTORY OF ECONOMIC THOUGHT

- Modern Monetary (or Money) Theory (MMT)
  - While MMT's foundations go back to earlier economists, the current formulation of MMT has only been around for about 25 years with the work of Randall Wray (Levy Institute at Bard College), Warren Mosler (an American economist and founder of the Center for Full Employment and Price Stability at University of Missouri-Kansas City), Stephanie Kelton (Stony Brook), Bill Mitchell (an economist at the University of Newcastle, New South Wales, Australia) and a few others
  - Concepts drawn from the work of John Maynard Keynes, Abba Lerner, Hyman Minsky, Wayne Godley and others
  - A sovereign nation that has its own currency which is not pegged to the currency of another country or to a fixed commodity, like gold, cannot go bankrupt – what is technically possible is affordable (Minsky)
  - Taxes drive the currency, that is, the currency has value because it is the only way in which to pay taxes
  - Taxes are not needed for the government to spend; spending comes before taxation (Beardsley Ruml, FRBNY, 1946)
  - Finance should be "functional" (to achieve a public purpose, Lerner), not "sound" (to achieve some arbitrary balance between spending and revenues)
  - Government "debt" is the private sector's asset (the sectoral balance approach discussed later)
  - Monetary policy is weak and its impact is, at best, uncertain
  - Capitalist economies are naturally unstable – subject to boom and bust and to occasional financial crisis (Hyman Minsky's financial instability hypothesis)
    - The neoclassical notion of a "natural state of unemployment" does not exist
  - The Job Guarantee (discussed later) is a critical component of MMT to achieve price stability and full employment

HISTORY OF ECONOMIC THOUGHT

- Modern Monetary Theory (MMT)
  - What MMT is not saying:
    - Deficits don’t matter
    - Inflation doesn’t matter
    - Federal debt does not need to be repaid (but it can be rolled over indefinitely)
    - Taxes are unnecessary
    - Government bonds (aka debt) are unnecessary

HISTORY OF ECONOMIC THOUGHT

- Demand Side Economics
  - Consistent with Keynesian and MMT: Economic growth and full employment most effectively managed by focus on demand
- Supply Side Economics
  - Two definitions:
    - Production (supply) underlies consumption and living standards (similar to Say's Law)
    - More commonly, marginal tax rates influence economic theory