

ECOP2612 - Economic Policy in a Global Context

- **Week 1: Introduction to Economic Policy in a Global Context**

- Capitalism is a method of social provision, based on a generalized process of exchange. Depended on a system of markets and its behavior - your expression of how you think the market behave (supply and demand) will guide the price theory.
- Political economists seek policies and institutions to achieve macroeconomic stability.
- With the onset of the recent bout of global instability, the mainstream economics profession has come up sort for methods to anticipate instability, to thwart instability, and to stabilize economies after instability happens.
- Why? – The theoretical underpinnings of the current approaches do not adequately model the dynamics of modern, capitalist market economies.
- Political economy encompasses a number of schools: classical political economists, mainstream economics, Marxians, Neo-Austrians, Post Keynesians, and Institutionalists. We will be concerned in this unit with mainstream, Post Keynesians, and, if time, the Neo-Austrians. (Note: Post Keynesian methodology overlaps a great deal with Institutionalists, so we won't explicitly cover the Institutionalists.)
- **The goals of EPGC** (economic policy in a global context) will examine: how economists have employed theoretical reasoning to justify their policy recommendations; where will they likely to locate their reasoned support in the future and how historical events can prompt the development of political economic theory and policies -> 3 goals:
 1. Policies and macroeconomic frameworks are closely connected.
 2. Management of a macroeconomy is driven by the predominant political economic framework of the time.
 3. Poor economics performance prompts revisions in macroeconomic theory (and subsequent policy) – and sometimes political change.
- **Characteristics of an economy that is performing well:** few unemployed workers (reflected int he unemployment rate), low increases in prices (reflected in the rate of inflation), stable growth rate in the output of goods and services (reflected int he growth rate of real gross domestic product - GDP).
 1. This implies that the goal of a logically coherent political economic framework needs to explain the determination of output, employment, and inflation.
 2. Policy recommendations then flow from a framework. (How does an economy need, or not need, to be managed in order to achieve the above characteristics?)
- It seems simple BUT successful management of an economy depends upon the availability of a political economic framework that can anticipate the outcomes of various courses of action -> To do that requires a framework which adequately captures the dynamics of a capitalist market economy. However, the predominant macroeconomic frameworks that have emerged since Post WWII have continually fallen short -> Why? They're not capturing the dynamics well. There is also a tendency to focus on aspects of economic performance than can be evaluated with metrics (need to shed light on in the weaknesses in the theoretical frameworks – and the policies they recommend.)

- Global context is a mix between political economy, political science and mainstream economics -> Economic policy recommendations justified by mainstream economics and key strands of political economy. Relationship between Political Economy, Economics and Political Science. Each of these disciplines has its own range of methods. How one “knits” the three together to explore a phenomenon depends upon the discipline selected.
- EX: Economics (strong American orientation), Political Science (strong British orientation; IPE). Political Economy (strong Continental European orientation) -> Similarities and differences between the three. For instance, both mainstream economics and political economy have at their heart theories of value and distribution; political scientists do not. (This is a key distinction between political economy and IPE). BUT, (mainstream) economics uses individual-based analysis; microeconomics underlies institutional and macroeconomic analyses. The strands of political economy rely on class-based analyses. The influence of class, along with social and institutional structures. However, class-based analyses have their limitations (the classes of capitalists, workers and landlords has become outdated). Future most likely lies in sectoral-based political economy – “modern” political economy.
- **Basic orientations:**
 - The various strands of mainstream economics carry within them an inherent vision that a capitalist market economy is inherently stable (economics)
 - Whereas the strands of political economy (heterodox economics), tend to carry a vision of the inherent instability of a capitalist economy (political economy).
- **The importance of vision:**
 - The basis of everything that we believe we know is a combination of vision and analysis. Vision is “the political hopes and fears, social stereotypes and value judgements ... that influence all social thought... as psychological, perhaps, existential, necessities: (Heilbroner and Milberg, 1996). Analysis is the process of deducing consequences from initial conditions.
 - A new paradigm for political economy entails an “institutionalist” vision which is legitimized in a different way. This requires a new vision and a change in the nature of economy analysis and focus and purpose of theory. (means-ends direct purpose).
 - **Heilbroner & Milberg (1995):** Market system can be cast as an object of analysis because it exhibits law-like regularities. Analysis involves chains of reasoning. The style of analysis is of a particular type in mainstream economics. Analysis has become the “jewel in the crown”; moreover, analysis has become increasingly removed from its social setting. -> There have been three classical situations. A classical situation is an understanding or summary agreement (“a moment”) about the work leading to that situation. The first situation is classical political economy (class-based analysis); the result of factual knowledge and concepts of “worldly” philosophers in combination with those of practitioners. The second revolves around the work of John Stuart Mill (who tried to synthesize classical political economy with marginalism (individual-based analysis). The third is marginalism (Jevons, Menger and Walras – and later Marshall). The situations were first identified by Schumpeter (1954), *History of Economic Analysis*. The next situation has struggled to emerge. Our goal is to examine the direction and basis where Heilbroner and Milberg thought the new front would likely emerge: sectoral-based analysis. Sectoral analysis would explicitly allow for social-political nature of capitalism and bring forth new ideas for guiding a market economy. ***This does not imply, however, that one relinquishes an understanding of how markets work (i.e., a theory of value and distribution or price).***
 - The new paradigm is prompted by struggle to attain full employment, increased pressure and dependence on public works and entitlement programs, the weakening of effectiveness of fiscal and monetary policies as financialization extends its reach and by the need to manage capitalism’s dynamics to yield more socially just outcomes.

- **Key Aspects of method - 2 divisions:**

1. A capitalist market economy is believed to be inherently stable

2. The other is that it is inherently unstable

- These two divisions are shaped by the social, historical, cultural and political settings and experiences of the individuals who hold them. This leads us to methods and how to capture these visions in structures of (economic) thought. Key features of the paradigm in economic thought involve uncertainty, time and equilibrium.

- Equilibrium as its related to competition, time & uncertainty and the unfolding of economic processes.

- Distinction between Cartesian/Euclidean mode of thought (method) and the Babylonian mode. Cartesian/Euclidean mode takes the form of axioms – logic – conclusions (deductive) or conclusions – logic – axioms (inductive). The Babylonian mode involves starting with a set of interrelated, mutually supporting arguments, applying the set to a situation, and working out the conclusions. Keynes' own work and the work of the Post Keynesians have a Babylonian flavor, whereas everything else that you see above has a Cartesian/Euclidean influence. - References to Dow, Botwinick and Eatwell and Foley.

- **Stability VS Instability (equilibrium):**

- **Vision of inherent stability** carries with it conception of equilibrium characterized by balance or complementarity of forces. That is, the market mechanism, if permitted to operate with little, if any government interference, is enough to balance supplies and demands of economic agents (firms and workers). Equilibrium is cast within the sphere of exchange and is either static (determined by initial conditions) or shifting over time in such a way that markets remain balanced.

- **Vision of inherent instability** carries with it a conception of equilibrium that is characterized by tendential regulation. Equilibrium shifts over time, but not necessarily in way that seeks balance.

- The activity of flexible prices – that is, free markets – are key for the allocation of scarce resources amongst competing ends. In both visions, equilibrium is **a centre of gravity** – it's how the centre is established and behaves which is different between the visions.

- **Classical political economy:** understanding of social classes ("macro" level) is necessary to understand the individual ("micro" level)

- **Marginalism:** understanding of the individuals and groups ("micro" level) is necessary to understand behaviour in aggregates ("macro" level)

- Mill tried to create a hybrid, but failed. A new paradigm will likely start with sectors (possibly, some form of "meso").

- **Time and Uncertainty:**

- The conceptions of equilibrium are complemented by particular concepts of time and uncertainty.

- **The vision of inherent stability** is characterized by mechanical and/or logical time. In this context, events and dynamics of market processes unfold in a way which is reversible.

- **The vision of inherent instability** is characterized by concept of time which is historical. In this context, events and dynamics in a way that cannot be reversed. This is because as processes evolves they change the social political, and institutional contexts. These will not return to the way they were if there is an attempt to reverse the dynamics. This is consistent with characterizing equilibrium a centre of gravitation which is tendentially regulated.

- Mechanical time is reversible and independent of events. Transition between states can be reversed. Logical time is actually timeless. Causality between variables and their evolution is determined solely by logical processes. Here, too, transitions between states can be reversed. Historical time is neither reversible nor independent of events. Transition between states cannot be reversed. Rather, "history consists of succeeding states, each of which is the outcome of the past (but not vice-versa)," (Dow 1996: 112).
- **Implications for uncertainty:**
- Mechanical and logical time – uncertainty can be reduced to probability distributions (modelled as risk). Processes and time are "deterministic".
- Historical time – uncertainty cannot be reduced to probability (or modelled as risk). Uncertainty remains a strong presence in the transition between states and attempts to represent it with risk will only lead to inaccurate forecasts.
- Implications for expectations: If processes can be reversed, then expectations can be reversed.
- **Competition:**
- The conceptions of equilibrium are also complemented by particular conceptions of competition. Mainstream conception of competition is designed to help demonstrate that supplies and demands will balance so long as prices are flexible and not interfered with:
- Key features: infinitely many, small agents, all agents are price-takers, perfect information, free entry and exit, homogeneous products.
- Competition between agents is active in periods of disequilibrium. Once equilibrium is established, agents become passive.
- Creating price-cutting strategies to grab market share are unnecessary and irrational.
- As price takers, agents can sell as much product or factors of production without changing price.
- Mainstream has a quantity theory of competition - fewer firms in the market place imply less competition.
- **Competition a la CPE (Marx's):** Classical (political economy) conception of competition - its clearest expression is within Marx's capital - is always present, there is never a time when the system rests as processes evolve in ever changing political, social, institutional and cultural contexts. It is an expression of capital's need to explain in order to survive. Law of capital accumulation. Competition is relentless and thrives on increasing the productivity of workers. To increase productivity, techniques of production must become more efficient. Here, fewer firms in the market place is the result of intense (not less) competition. - differences in the law of value.
- **Government's role:**
- Two visions imply different roles for the government:
- **Inherently stable:** little, if any, government intervention is best. Government needs to be aggressive in freeing and protecting the market mechanism. Mild imbalances are internal to the system, and the economy has the ability to quickly to recover or rebalance itself. A more severe event might require a wee bit of management.
- **Inherently unstable:** Government needs to be defensive in protecting citizens and its own interests against the externalities of free markets. There is a tendency for widening income and wealth inequalities and there is a tendency for rising unemployment. The natural tendency for concentration and centralization of productive activities leads to the emergence of market power of firms.

- Mainstream macroeconomists tend to disagree, not over objectives of government, but the policy recommendations & theory which underlie them.
- **The Thrust:**
- If capitalists market economy is inherently unstable, then policies designed from frameworks carrying a vision of inherent stability will likely exacerbate instability. policies which promote free market (or nearly so) unleash forces which are inherently unstable.
- Frameworks that carry a vision of inherent instability are better suited for designing policies that combat bouts of instability or soften their effects. However, it is unlikely that instability will be removed completely . More stable and socially desirable results than with reliance on free markets.
- Instability cannot be completely removed as the continual evolution of social, political and institutional underpinnings will shape – but not determine – the key dynamics of capitalist accumulation.

Readings - Week 1: Introduction to EPCG

- We begin with the importance of vision as underlying approaches to economic and financial stability. The mainstream's and non-mainstream's visions are been captured in their approaches to value, and ultimately underpin their justifications for macroeconomic policies. Their approaches are integrally related to their conceptions of competition, equilibrium and time.
- **Heilbroner, R. and Milberg, W. 1996. The Crisis of Vision in Modern Economic Thought. Chp. 7.**
- A new era of economic theory will have to take into consideration the current domestic scenario and take into consideration public intervention.

EX: The role of technology and automatization's constraints in the employment -> resulting in a prospective increase in the dependency on government-financed programs of unemployment relief or public works.

The economic importance of public spending is moving to the fore in the form of entitlements at all levels of the society, from welfare through social security to health insurance -> Entitlements are not the most rapidly mounting stream of government expenditures. These trends in advanced nations are giving rise to a difficult impending fiscal problems. New developments have enhanced the operational importance of the public sector, with rising number of multinational corporations.

- This globalization of production carries unsettling implications for all advanced capitalisms, including the lowering of social, environmental and labour standards though the forces of market competition, and the rise of new industrialized countries as major rivals for market shares.
- On a worldwide scale this internationalization of finance seriously limits the ability of advanced nations to carry out domestic fiscal and monetary policies that are not compatible with the will of a stateless world financial market. With the threat of a even larger population in the upcoming years, the raising immigration pressures, pressing ecological issues on a global scale and ethnic and nationalist unrest apparent with sporadic terrorism. Such developments represent a striking change in the realists to which a potential classical situation will have to accommodate itself, it needs to encompass the sociopolitical background of modern times. A new vision must incorporate the sociopolitical essence of historical setting in its choice of fundamental agents who will set into motion the economic drama itself, most likely to incorporate the private sector as relatively passive, although vitally important player and the public sector as strategic, although smaller sector.

- Government policy plays a dynamic and determinative role reserved mainly for the actions of the capitalists class or the decision of individual entrepreneurs. There is a far-reaching application of governmental power, and a much greater recourse to government- sponsored social coordination.
- Such an institutional vision must express the legitimization that must be accorder with the public sector.
- EX: The undue of government borrowing may crowd out the private borrowing. HOWEVER, such statement may underestimate the social gains form the crowd-out of private investment would warrant giving it priority over the public expenditure displacing it - this challenges the prevailing Anglo-Saxon world view about the implicit superiority of private expenditure compared to pubic, except in times of war. This concept does not mean that priority should now automatically be awarded to the public sector, but instead that the older vision of public activity is no longer affordable - necessity for a social viewpoint
- The enhanced legitimacy of the public sector as central to this new vision will require not only a change in the nature of economic analysis but also a transformation of the status of analysis in economic enquiry generally. HOWEVER, much will depend not he developments that cannot be foreseen: the character of specific technologies, the speed of advent of ecological threats, the character of the domestic political climate, and political possibilities and imporbiitiest that will develop int he international scene.
- The analysis will involve examination of consistency of arguments, reliability of statistical methods and apolitical criteria. In the traditional construction of economic theory, analysis begins where vision stops, accepting the entities it presents and proceeding to deduce the effect of any additional variable or variables by applying the powerful assumptions of lowlife behavior to determine the casual chains that follow. An increasing reliance on political means to some with internal and external challenges is apt to complicate and alter this traditional sequence to a change in the focus and purpose of the theory itself. Given the importance of the government policy whose intent is to counter the natural course of events, the conventional predictive orientation of economics must become instrumental - means-end direct purpose - with he use of analysis to infer the policy best suited to attain a necessary end result. The behavioral laws on which economics was built is an analytical apparatus applied only partially as a selection of means best suited to realize policy objectives. As a consequence, the analytical function loses some of its erstwhile science like ability to rely on underlying behavioral regularities and takes on aspects of political and social judgement absent in the traditional application of behavior guided by simple maximizing. All this presents a challenge to the fields of economics. It requires that economics must come to regard itself as a discipline much more closely allied with the imprecise knowledge of political, psychological and anthropological insights than with e precise scientific knowledge of the physical sciences. Indeed the challenge may in fact require that economics come to recognize itself as a discipline that follows int he wake of sociology and politics.
- A society whose economic activity is guided by politically self-conscious visions, and that utilizes means-ends analyses, will not exacerbate the ever-present dangers of polarization of its life. It will only incorporate politics into the agenda of society that wishes itself to be governed by its own choices, not only by obedience. There is a need for economics to abandon the conception of natural law and replace it with the explicit assertion of he inextricable connection between economics and its underlying social order - necessity to reorientate from the economic theory to the prediction of policy guidance. Capitalism is essential not he defensive before the forces of its making, but not under its immediate control.

- **Dow, S. 1996. The Methodology of Macroeconomic Thought: A Conceptual Analysis of Schools of Thought in Economics. pp. 56-59.**

*** The Marginalist Revolution**

- It's denial from the Ricardian theory soured from the case against reform in the theory, where wages were kept inevitably at the subsistence levels because of the Malthus theory of population because of capitalist exploitation with little scope for alleviating the plight of workers in the short run. There were 2 distinct traditions in this revolution: the English tradition emphasizing in the utility theory and preserving some features of the classical though - the neoclassical school; the general equilibrium school led by Walras and Pareto - a more strictly formalist approach and the Austrians whose subjectivist approach involved a strong attack on empiricism.
- Marginalism turned away from the classical approach, which raised uncomfortable class-related political issues, the marginalists attempted to create a complete analytics system encapsulating economic relationships deduced from axioms depicting a universal pattern of individual behavior exemplified by the economic man. The method was predominantly mathematical, employing calculus to incorporate the powerful notion of margin. Growth and income were no longer the primary concern, emphasis now was placed on the efficient allocation of resources and thus more on exchange than on production. Value, which was the outcome of a social process in the Classical school, was now perceived as arising from the subjective preferences of individual acting atomistically in markets. Along with the identification of value with utility, labor, which had formerly been regarded in the same way as land and capital, according to its marginal product. The main focus of the marginalists was at the micro level - in the determination of relative prices.
- In the Classical school, Say's law was the outcome of long-run tendencies, which referred to equality between total quantities demanded and supplied. It arose from the equality between wages and purchases of wage goods, and profits and investment and the response of population growth to wage levels, it was the outcome of the particular historical organization of society. In the marginalist framework, system solutions were ahistorical, they referred to positions of static equilibrium, and they arose from a representation of economic relationships designed to be universally applicable. These relationships were the outcomes of points based on demand and supply schedules aggregated over all individuals for application to any range of possible prices and quantities. The equality of demand for and supply of labour was ensured by competition in the labour market.
- The equality between saving and investment was ensured but the movement of their price, the interest rate, to the market-clearing level. In spite of the growing sophistication of the financial system but the stage, no hope was given interest rate to have a monetary role. The money supply, which provided the only focus for theory at a macroeconomic level, simply determined the general price level, as long as money was not hoarded, relative prices were independent of the general price level.
- The methodology of the marginalist school was primarily axiomatic and deductive. It relied on a finite set of axioms as to the individual behavior and the rest of the theoretical structure could then be derived using the deductive logic. The purpose of the study of economics had become to establish a complete logical system, rather than to answer policy questions. For the reformers, normative questions of social reform could be separated from positive economic analysis. Income distribution was no longer viewed as being class-related, but determined by the marginal product of the relevant factor. Marshallian partial equilibrium was designed to general value-free conclusions on policy question.
- Economic analysis consists of deductions from a series of postulated, the chief of which are almost universal factors of experience. Economics is a science which studies human behavior as a relationship between a given hierarchy of ends and scarce means which have alternative uses.

- **Botwinick, H. 1993. Persistent Inequalities: Wage Disparity Under Capitalist Competition. pp. 123-146.**

- The implicit acceptance of perfect competition as the logical starting point for the analysis of highly competitive markets are repeatedly forced these economists to rely on theories of monopoly power and the dual economy to explain the long-standing evidence of persistent differential profit and wage rates with a subsequent rejection of systematic competitive limits to wages, prices and profits with core sectors of the economy invariably led to serious problems of indeterminacy and inconsistency. BUT utilizing the Marx's theory of capitalist competition between and within industries, many phenomena previously considered to be evidence of imperfect competition and monopoly power can actually be explained within the framework of ongoing capitalist competition. Capitalist competition result in different profit rates among various firms and industries and wage differentials among workers who are employed in these locations.
- Within neoclassical economics, the highest level of competition - perfect competition - requires two extremely restrictive set of conditions which, in turn, imply a very peculiar set of behavioral assumptions concerning the competitive firm. First, given the assumptions of perfect information and mobility resources - no mobility of capital - neo-classicals suggests that all firms within a competitive industry will end to possess identical cost structures and hence, identical profit rates. Although the introduction of new and more efficient techniques may cause minor disturbances in the quality and cost structures, these disturbances tend to be short lived. Not only will other firms in the industry become aware of the new techniques via perfect information, but they will also immediately move to adopt them via perfect mobility. Second, highly competitive industries must also consist of an infinite number of infinitesimally small firms. This condition is necessary to ensure that individual firms can not have a significant impact on market supply and hence, market price. No firm views another firm as a competitor. Given the assumption of infinitesimally small firms, neoclassical theory has ensured that each firm (innovator or otherwise) can already sell as much product as it desires without having to lower its selling price. Thus, even though the innovator's new technique will probably require a significantly enlarged scale of production, it will not be necessary to lower prices to accommodate this increased output. If lowering prices is not required to realize the innovator's expanding output, the only other compelling rationale for active price outputting would have to come from possibly inflicting long-run damage to rival firms. Given the assumptions of perfect competition and perfect mobility, the innovator can only enjoy only a momentary cost advantage over its competitors. Consequently, to actively lower prices would only bring swift and equally capable retaliation from all other firms in the industry. Under these conditions the innovator would therefore be unable to secure any long-term advantage over its competitors. In fact, if all that would be accomplished by such an aggressive pricing strategy would be a more swift reduction in the market price and the elimination of any short term surplus profits that could have been achieved if the innovator had not initiated the price decrease.
- Marx's discussion of the general law of capitalist accumulation depends heavily on the observation that the capitalist production process was becoming increasingly mechanized and increasingly capital-intensive. Within the context of large-scale enterprise, the relentless drive to expand capital value is necessarily accompanied by growing struggle over market shares. These two dynamics, accumulation and rivalry are intractably bound up with one another. The battle of competition is fought by cheapening of commodities. The cheapness of the commodities depends, *ceteris paribus*, not on the productivity of labour and the scale of production - therefore, larger capitals beat the smaller capital. The key weapon in the competitive battle is the development of more efficient techniques of production, and the primary competitive strategy is to utilize these lower costs to drive the others from the field. The innovator, according to Marx will find it both necessary and advantageous to cut prices, price cutting is often required by the innovative firm because increased efficiency is generally achieved through larger scale production and significant increases in fixed capital costs. Thus, in order for the innovator to cover these rising fixed costs and enjoy the benefits of a larger scale production, he will be forced to expand its level of output. Price cutting is not only necessary in order to expand the market, but it can also be a highly effective competitive weapon that can inflict substantial, long-term damage on rival firms. Pressures of competition and the general law of

capitalist accumulation cause the methods of production to be continually revolutionized, given the presence of fixed capital investment, however, new techniques cannot be immediately adopted by all firms in the industry.

- Thus, in the Marx's view, within this dynamic analysis of technical change, the constant development of more efficient techniques causes a perpetual leapfrogging effect within the conditions of production of each industry. Rather than creating identical firms, competition therefore creates a continual re-differentiation of the conditions of production. Moreover, because competition within each industry also requires all firms to sell their products at roughly the same price, it also results in the constant differentiation of profit rates. Marx's analysis of effective competition entails both significant cost differential and prolonged turnover periods for fixed capital, we can begin to see why price cutting can become a powerful competitive weapon in the hands of the low cost-producer. As the slow-cost producer forces prices down to make room for its increased space of output, it also may be able to inflict sustained damage on rival firms who are suffering from both higher unit costs and the inability to alter their plant and equipment in the near future. Thus, innovating capital may eventually be able to make room for itself by extending the market as a whole and by expanding its own market here at the expense of the market share of less efficient firms.
- When the low-cost firm initially lowers its price, certain competitive advantages are evident. By initiating the price cut the innovating firm is able to enhance its competitive position by clearly establishing itself as the most efficient producer within the industry and in effect the price leader. To the extent that the producers are slow to react to the initial price decrease, the innovating firm can utilize its position to capture a portion of its rivals market shares. In the long run, this initial advantage will clearly become tempered as other capitals are eventually forced to cut their prices as well. As these less efficient firms lower their prices, the penalty they will have to pay may be steep depending on their cost position within the industry. Given that many of these other capitals possess substantially higher unit costs due to older and less efficient plant and equipment, their profit margins and profit rates may become seriously compromised, therefore, rival firms will not be able to retaliate with equal competence.
- Although the innovator may originally suffer from lower profit rates at the old market prices, given its higher unit investment costs, its lower unit prime costs and an aggressive pricing strategy may eventually allow it to seize the dominant profit rate position within the industry. Higher profit rates and profit margins will provide it with greater internal funds for further accumulation and increased research and development.
- Marx's analysis of competition does not suggest that rising amounts of fixed capital will automatically lead to rising barriers to entry.
- The most distinctive elements of Marx's analysis of competition within industries are:
 1. Marx's analysis of competition is derived from the laws of capitalist accumulation - large scale enterprise. Ongoing accumulation requires most capitals to continually make room for their expanding output. Competition therefore results in a contentious battle over market shares which intensifies as combatants grow larger. A more efficient technique of production, and the key strategy is to lower prices and drive less efficient capitals to the wall.
 2. Given the prolonged turnover periods for fixed capital, competition and technical change results in the continual re-differentiation of profit rates within each industry. Capitals with advanced techniques tend to have greater fixed capital outlays, higher capital/output and capital/labour ratios, lower unit costs and higher profit margins. As prices are driven down, they are all likely to enjoy higher profit rates.
 3. Although fixed capital investment increases with accumulation, this does not imply the notion of rising barriers to entry.
- In neoclassical theory, the assumptions of perfect competition imply that profit rates will not only be uniform within each industry, but across industries as well. Thus, only minor short term disturbances in the uniformity of profit

rates are to be expected within highly competitive economies, and anything more than marginal disturbances must be considered evidence of the lessening of competition.

- Marx argues that capitalist competition produces a tendency toward the equalization of profit rates that can only take place through the constant correction of substantial differentials in profit rates that often persists for several years. The equalization of profit rates is described as a process of tendencies regulation that involves both constant differentiation and constant disequilibrium. Marx argues that the most important characteristic of the capitalist mode of production is anarchy.
- Without any advanced planning amidst a great deal of uncertainty, rather than perfect competition, each private producer must nevertheless attempt to connect up with hundreds of other independent actors. Suppliers of necessary inputs and buyers of the final products must continually be found, all hopefully in the right proportions that will allow for sustained reproduction. Because the capitalist economy is largely unplanned, however, this necessary regulation of the social division of labour can only take place behind the back of producers through the constant correction of mistakes within the marketplace. The fundamental mechanism for this process of tendential regulation is the law of value which ultimately determines how much of its disposable working time society can expand on each particular class of commodities. Marx initially explains how the social division of labour is regulated by the continual deviations of market prices from market values.

EX: When too much labour is devoted to a particular commodity relative to effective demand, this product's market price will drop below its intrinsic value, which is determined by the socially necessary labour time required to produce it. Supply and demand is always equated when the whole is viewed over a certain period, but only as an average of past movements, and only as the continuous movement of their contradiction.

- Given that capitalists are primarily concerned with the production of surplus value and not use values, the continual reproduction of the system also requires that each sphere of production must at least tend to receive an average rate of return. If prices tended to fluctuate around a commodity's intrinsic market value, however, industries that are relatively labour intensive would tend to earn above average profit rates because they are exploiting larger portions of living labour relative to their total capital investment. Thus, the equalization of profit rates requires that prices of production rather than market values form the center of gravity of market prices.
 - Marx's prices of production are not points of convergence that act to dampen the market fluctuations into long run. Marx's concept of long run prices cannot be viewed as an equilibrium concept as formulated in neoclassical theory. Equalization of profit is a dynamic process that requires the constant convergence of profit rates as well as the continual re-differentiation of profit rates above and below the general rate. Marx's analysis of competition warns us that we must allow for sufficient period of time before we can attempt to assess whether or not certain branches of industry have been able to achieve sustained periods of above average profit rates as a result of monopoly power.
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Week 2: Pre-Keynesian Approach to macroeconomics

- **The setting prior to the wars:** Prior to the wars, large firms were owned and managed by dominant figures - EX: Rockefeller in the US (Standard oil), Carnegie in the US steel, Morgan in the US finance; Krupp in the steel and ammunition in Germany, Thyssen in Germany steel, Vickers in the UK steel -> Large firms were supported and complemented by a host of small firms (merchants, artisans and entrepreneurs).
- Union strength was weak and firms typically had rural populations and new immigrants to draw upon.
- The setting supports the idea that there are indefinitely many, small agents (firms and workers) who are unable to influence the price for their products.
- **Systematic approach to policies?**
- In the late 19th century, political support in capitalist ("market -organized") economies was oriented towards: protection of property rights, laissez faire approach to managing markets and anti-labour.
- Bank of England was discovering that it could influence the economy through its defense of the gold reserve to protect the pos's convertibility
- Limited theoretical justification for policies in the 1800s.
- What about the left? -> Ricardo (the British Corn laws), Marx (uniting the workers as a force) and underconsumptionists (Malthus, Sismondi, Luxemburg)
- **Influence of the (neoclassical) marginalist revolution:** What's the big deal about the revolution?
- The revolution gained a philosophical defense of free markets -> utilitarian: utility as happiness
- Rationalized property incomes for allocating resources
- Unregulated markets provide the best or optimal social outcomes.
- Money is simply a device to lower transaction costs.
- **Classical Macroeconomics (pre-Keynesian):**
- The vision is that of inherent stability of capitalist market economy. If the price mechanism is allowed to work freely, the state doesn't need to interfere. This system or framework is set up to logically yield this outcome and corresponding policy advice (EX: anti-trust regulation).
- 3 basic elements of this system: labour market (determination of employment), aggregate production function (determination of output) - say's law and classical theory of interest, quantity theory of money (determination of the price level or inflation) -> These 3 elements comprise a model of market, capitalist economy which is self-reflating -> 2 assumptions which underlie the entire analysis: perfect competition and rational behavior
- OBS: the separability of the real and monetary sectors.
- **Market System:**
- Each commodity or product has a market that is represented by a supply curve and demand curve
- The curves are derived given consumer preferences, technology and endowments of factors of production. Demonstration of existence of equilibrium set of prices - a set of prices which clears the markets simultaneously - is possible so long as capital is not reproducible. The approach breaks down if capital is reproducible (both an input and output).

- So long as prices are flexible, and not interfered with, supplies and demand of goods and services will seek balance.
- **Implications:**
 - Factors of production are rewarded according to their productivity. The more productive worker is the highest his/her real wage and likewise for other factors.
 - The price of a product is determined by its cost of production
 - The optimal quantity supplied of a product is determined by the balance of marginal costs with marginal revenue or price.
 - For the economy as a whole, aggregate demand equals aggregate supply.
 - Monopoly represents a flaw in the system. It prevents the price mechanism from operating in the way that ensures supply and demand are balanced in a way that maximizes the welfare of the society.
- **Labour Market:**
 - Labour is treated like any other commodity.
 - Demand for labor $DI = f(W/P)$ -> diminishing productivity and profit maximization
 - Supply of labour $SI = g(W/P)$ -> attitudes towards work and population
 - Equilibrium: $SI = DI$ -> Once achieved, there is no incentive to change unless there is a shock to the determinants of demand and supply.
- **Characteristics of the labor market:**
 - Use of the real wage, no menu illusion, any workers found to be without work in equilibrium are either frictionally unemployed or voluntarily unemployed.
 - Voluntarily unemployed: willing to work for a real wage that is higher than the equilibrium real wage.
 - Once the equilibrium quantity of labour is determined, output is determined via the (aggregate) production function.
- **Say's law:** Barter economy (goods and services change hands without money). Say's law holds automatically in this context as every act of production is interpreted as stimulating the demand to absorb the output - EX: hat and shoe markets
- **Monetary economy** (goods and services change hands using money). Say's law does not hold automatically in this context, as it is possible to use money's function as a store of values to defer demand. Possibility of glut opens. -> Solution: introduce financial intermediaries to channel savings back into the circular flow.
- **Role of financial intermediaries (Classical theory of interest):**
 - If demand is deferred through withdraw of money from the circular flow, it is immediately re-instated by banks through the activity of lending money to firms who want it for investment.
 - Supply for savings: $S = g'(i)$
 - Demand for saving: $I = f'(i)$
 - Depends upon the productivity of capital.

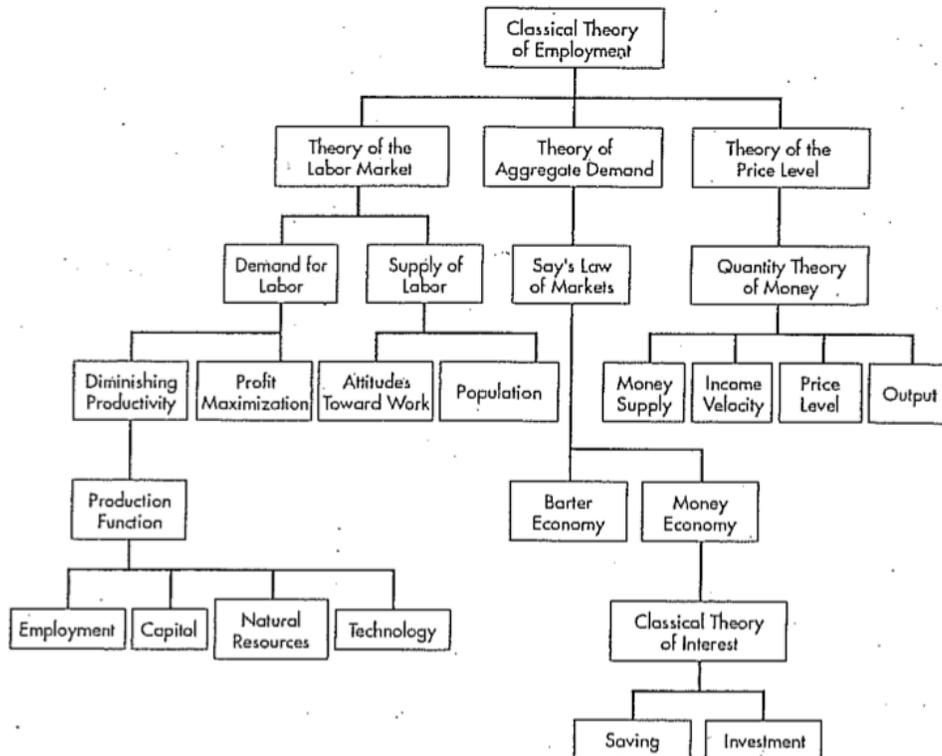
- Equilibrium occurs when $S=I$
- **Price level (quantity theory of money):**
- Equation of exchange: $Mv = PY$
- A truism (self-evident truth) until invested with behavioral relationship.
- $P = f(M)$, that is, the price level is determined but the level of the money supply.
- Graph illustration:
- Y vs. P is used to derive nominal Y , which is equivalent to Mv (inverse relationship between Y and P).
- Collect Y, P combinations for a level set of Mv curves.
- If you start from one point, and let M increase, the impact is on nominal Y , not Y real \rightarrow Y real is determined by labour market and production function
- Change in the nominal Y , due to a change in M , implies that P changes.
- **Overview of the classical model:**

 1. The labour market equilibrium determines the level of real output via the production function, given technology and resources and the real wage.
 2. Say's law ensures any leakages of demand via monetary hoards are re-injected by the activity of financial intermediaries (classical theory of interest).
 3. The price level is determined by the money supply given output and velocity.
 4. The money wage is determined by multiplying the real wage with the price level.

- **Classical system - Important points:**
- Closed economy
- Full employment of labour
- Any unemployment is voluntary or frictional
- Flexibility of wages and prices is necessary for the system to gravitate towards a full employment level of output and employment.
- The conditions of production will be the same for all firms (which are infinitely small and many). Perfect competition ceases and there is no incentive to change these conditions. Technological change or some other foreseen event will unsettle the system, causing capitals to flow to more productive uses.
- Capital flows re-establish balance both within and between industries and for the system as a whole.
- **Classical system insights:**
- Income distribution is no longer linked to class relations, but comes to be dependent on marginal products of workers. As such, policy recommendations could be less dependent on subjective value judgements.
- "The scientific process of abstraction" has become conflated with "the ideological process of idealization" -Botwick, 1993

- Economic and financial crisis should be addressed by letting markets function. Their functioning is supported by enforcing property rights and debt contracts and defending the gold standard.
- **What early marginalizes overlooked:**
 - Impact of technology on society - In the early 20th century there is a wave of inventions: electricity, automobiles and gas engine -> These inventions would not only be incorporated into production processes and enhance the productivity of workers, but they would also change the human environment - urbanization (away from farms and to the cities), automobile industry (grew to the largest industry in the US by 1923 - mass production, supporting industries grew such as chemicals, leather and radios and consumer spending rose), increased communication and transportation and interdependence (enhanced division of labour).
 - Changing nature of work: outdoors to indoors, physical/ artisan to sedentary (repetitive tasks) and routinisation.
 - Entrepreneurs: not poor immigrants, but people with connection and means.
 - Managers: keen industrial and financial strategies, with knowledge of entire operations
 - Change in market structure: early industries to concentrate (textiles, agricultural implements, locomotives, biscuits and crackers, steel, tobacco, sugar and refining).
- **Money - an important oversight:**
 - One of the most troubling aspects of this framework is that the separability of monetary and productive spheres means that: The theory cannot explain financial crises and fluctuations in output and employment.
 - While the early Fed reserve agreed to protect the gold standard as the basis of the world financial system, in practice it would stop if needed to protect the value of the dollar.

SUMMARY SKETCH OF BASIC CLASSICAL THEORY



- **The great depression:**

- The great depression was a pivotal moment in the development of economics and policy.
- OBS: Australia was actually in recession when the Crash, and then the Great Depression, occurred in the States. the depression made things a lot worse in Australia.
- The predominant explanation of how a capitalist market economy operated no longer appeared to work, as it couldn't explain the presence of prolonged periods of high unemployment. Policy recommendations based upon this approach were severely criticized.

- **Tutorial issue for week 2 (tutorial 1): Balanced budgets – how is a balance budget justified? What are some of the key underlying assumptions?**

* **Donald Trump's Questionable assumptions of his balanced budget goal:**

- President Donald Trump's proposal to balance the budget within the next 10 years includes some aggressive and potentially inconsistent economic assumptions and accounting devices. The White house predicts economic growth will peak up in the coming years with our much increase in the inflation or interest rate. It is expected to boost revenue growth and reduce the need for social-safety net spending. To achieve a fortifies mix of fast growth and low inflation and interest rates, the economy would need to deliver a worker productivity boom that many other forecasters don't foresee. The budget presented by Trump make bug cuts on education and research and development, two areas that could help stimulate the kind of productivity growth that would boost the economy's growth rate without causing a rise in either inflation or interest rate.
- The budget proposal's focus on reduced deficits also sets up potential collisions with Trump's the policy preferences, such as the boost in public-private infrastructure investment while cutting the funds for the maintenance of roads and bridges. The budget also double counts some of the benefits of faster economic growth, such as the offset of lower taxes rates on government revenue and closing the budget deficit with the belief that cuts in taxes will stimulate more economic activity, such a growth peak up mean that tax cuts will pay for themselves by enlarging the economic pie with the government getting a smaller share of a larger pie with economic policies that are tax revenue neutral, with the assumption that the tax plan will cover its costs with other strategies, such as limiting tax deductions and closing loop wholes.

* **Analysis of the balanced budget proposal:**

Austerity programs are a popular approach these days for adjusting fiscal imbalances towards balance. They rest on a vision of inherent stability of a capitalist economy. That is, the economy will gravitate to an equilibrium position if free markets are allowed to operate with little, if any, government intervention. This implies that there are trade-offs and that the economy can grow in a stable manner without being affected by inflation or interest rate changes.

The idea of a balanced budget is expressed through a budget constraint. A budget constraint – or any constraint – effects limits on choices of the agent involved. Something has to be allocated within this constraint. Constraints capture the idea of scarcity, whether in terms of natural resources (inputs to production) or finance. Resources need to be allocated between uses. The operation of free markets (via the operation of flexible prices and self-seeking individuals) are believed to be a robust mechanism for that allocation process.

For instance, each consumer has a budget constraint with which it allocates income between goods and services in order to its maximize utility or happiness. The utility-maximizing choices of consumers, collectively, are thought to achieve the highest level of welfare for the society as a whole. A shock to the system prompts consumers to reshuffle the goods and services they buy as they attempt to maximize utility, and firms follow suit by changing the production of those goods and services according to what consumers demand. Prices adjust to help bring the system back into balance. There is an equilibrium, and time is logical and mechanical (suggesting the reversibility of economic processes).

+ The idea of austerity is that a government has a constraint:

$$\text{Government expenditures (G)} = \text{Tax revenue (T)}$$

The government is treated like a consumer or household in that the government should not spend more than it earns. Well, it can – by printing money - but there are repercussions. What are some of the repercussions? Inflation, perhaps, which leads to falling real values of asset prices. It can also erode the real value of debt.

+If government has debt, then the equation changes to:

$$\text{Government expenditures (G)} + \text{debt service (iB)} = \text{Tax revenue (T)},$$

where i = interest rate and B is debt stock.

+Gaps, such as $G > T$, can be dealt with new borrowing ($+\Delta B$), where Δ represents “change”:

$G + iB = T + \Delta B$ +Gaps can also be monetized ($+\Delta M$), where M is stock of money:

$$G + iB = T + \Delta B + \Delta M$$

+Implications: If we assume no monetization, then eliminating the gap ($G > T$) can happen if government expenditures are reduced, taxes are increased and/or new borrowing takes place. If a government is deemed to have a debt problem, then the balancing happens with taxes and expenditures (and possible debt restructure.)

+ The Trump administration has proposed to balance the budget within 10 years. The idea is by strengthening economic growth, tax revenue will increase. A stronger economy also means slower growth, even negative growth, of spending through the social safety net. Moreover, this can be achieved without inflationary pressures or rising interest rates. (Interest rates tend to rise as inflation rises, partly due to monetary policy response.) How? Increasing working productivity.

+ Budget.gov.au on “balanced” budget seems to reflect some, not all, of these ideas.

A recent analysis by the WSJ notes that its plan rests on unquestionable assumptions, inconsistencies and double counting.

+ Many of the assumptions pertain to the economic forecasts. For instance, the White House sees short-term interest rates rising to 2.1% by 2019, whereas the Federal Reserve suggests 3% is more likely. This is a concern because the interest rates are thought to influence the pace of consumption and investment expenditures.

+ An inconsistency is that worker productivity rise even in the face of reductions in expenditures to support education and research & development. The expenditures include R&D support within the Pentagon, Aeronautics & Space Administration and National Institute of Health.

+ Double counting emerges when economic growth is supposed to increase tax revenue when tax rates are reduced. That is benefits of tax cuts were double counted.

Readings Week 2: The Pre-Keynesian approach

- This lecture introduces the structure of classical macroeconomic theory (macroeconomics as it existed prior to Keynes' alternative framework, *The General Theory*). Its policy recommendations for the promotion of economic and financial stability are examined. The heart of this approach is a vision of the inherent stability of a capitalist market economy.
- Classical macroeconomics is not the same as classical political economy.

- **Peterson, W. and P. Estenson. 1996. *Income, Employment and Economic Growth*, pp. 73-97.**

- The main measure of economic performance: output, employment, price level and trade balance.
- The classical economics or pre-Keynesians of the 19th century -> monetarists (neo-classical)

OBS: Economic relationships are expressed in functional terms between economic quantities to obstruct economic analysis. A functional relationship exists between two variables when they are related in such way that the value of one depends uniquely on the values of the other -> $y = f(x)$ -> This equation reads y is a function of x , which means that the variable y is related in a systematic and dependable way to x , the independent variable. The concept of a functional relationship enables us to express symbolically in a mathematical format the essence of a particular economic theory. Functional relationships are also depicted as schedules, which is an array showing all the possible values for the variables involved in a functional relationship. The term schedule is used to describe the data if a functional relationship is arrayed in a tabular form, whereas the term curve refers to the graphic representation of a schedule. There can be a movement along a given curve, which means that the dependent variable is changing because the independent variable has changed. There can also be a shift in the entire curve - this involves a different set of values for both the dependent and the independent variables in the functional relationship. The variables found in a functional relationship in economics are measured, the economists define and measure economic variables in either an ex ante or an ex post sense. An economic schedule or curve is an ex ante construct, this means that the values for the economic variables shown in the schedule or curve are intended or expected, not actual values. They represent values that become actual or realistic only if certain things happen.

EX: the typical supply schedule for a commodity decided in microeconomic analysis shows how much of the commodity will be supplied at various possible prices. Price is the condition that determines how much of the commodity will be supplied in a particular market. Such a schedule is ex ante in the sense that it depicts the intended responses of suppliers to different possible prices for the commodities. A price that brings a particular quantity of commodity to the market is called the supply price for that quantity of commodity - a supply schedule is therefore a series of supply prices for varying amounts of commodity. Demand and supply curves are the analytical tools used by economists at all levels of analysis, they include important economic magnitudes such as individual prices, the level of employment, the size of output, etc - are determined by an interaction between demand and supply curves.

- The Classical economics is the term used to describe the system of economic analysis developed in England in the late 18th/ early 19th century, a system which stood largely intact until the 1930s as the main body of economic principles accepted by economists - classical economics or pre-Keynesian economics describes pre-1930s theorizing about the determinants of output, employment and the price level. Classical economics wants to theorize how an economy organized on the basis of free, competitive markets and the private ownership of land and manufactured capital is supposed to work. The prime objective of classical analysis was to show how, through markets, an economic system so organized establishes prices for everything that is produced and prices for the

resources required so that production can take place, how efficient is the use of resources obtained, and how the material welfare or all-being of all participants in the system is maximized.

- Classical economics rests on two assumptions: the economy is dominated by the kind of rigorous competition that denies any control over prices to either the sellers of goods and services or the sellers of the services of economic resources. The social function of competition is to ensure that the free play of self interest in the commodity and resource markets will lead to results that are desirable for the whole economy where all wages and prices are flexible. Every producer, in seeking to promote his own gain, is led by the invisible hand to promote an end that was no part of his intention - Smith's invisible hand working through markets harnessed personal greed (the pursuit of self interest) to the social good (the maximum production of the things people want). The second underlying assumption of the classical economists was that people are rational. Rationality to the classical economist meant that essentially pleasure-pain calculus. In all activities, including those pertaining economics, people would rationally attempt to order their affairs so as to maximize pleasure and minimize pain. The balancing of pleasure against pain or gain against cost, is the strategic, motivating force in the economic system. As consumers, people attempt to maximize the satisfaction derived from the expenditure of income, whereas as resource owners or entrepreneurs, people sought to maximize the return obtained from the sale of goods and resources at their disposition. Assumption concerning human nature constructed by deductive logic constitutes the complex structure of economic analysis and rational expectations.
- Embodies in the classical analysis of how markets organize economic activity through competition and the pursuit of self interest is the theory of employment and output, the theory of resource allocation and income distribution.
- Classical employment theory consists of 3 basic propositions. First, the level of employment is determined by the total demand for and supply of labour - once employment is determined, output is also determined because how much is produced depends on the number of people at work - as labour goes up, so does output. The classical school regards the full employment of labour as a normal state for the economy (confronted by the mass unemployment of the 1930s crisis).
- Say's law of markets: even though the level of employment is determined by the total demand for and supply of labour, and this level utilizes all workers seeking work the possibility exists that the output produced with this labour might not be sold. It asserts the supply creates its own demand, which means that every act of production creates income and therefore demands equal to the value of that production. No general overproduction is possible - valid in a barter economy, since no person would bring goods to the market except to exchange them for other goods. In an economy that uses money, matters are not so simple. Production generated money income for the producers, but one of the virtues of money is that one does not have to spend it immediately. Thus, in a money using economy, the possibility exists that some income arising from production may not be spent immediately but saved. The Say's law links the supply of savings to the rate of interest and the latter to borrowing by the business executive to purchase new capital goods, including structures and equipment. Therefore, if more is saved, interest rates will fall, and more borrowing and spending for real capital will take place. In the classical theory, saving cannot cause a decline in spending and thus be responsible for more being produced than can be sold. Assuming that all savings are supplied to business for investment, Say's law works in a money-using economy as well as in a barter economy. So every act of production necessarily creates sufficient purchasing power to buy back that production - hence a general overproduction or glut of goods are impossible.
- The role of money in the theory of classical economics states the money's purpose to make the economy more efficient by avoiding the clumsiness of barter. Money serves, primarily, as a medium of exchange, so the purchasing power is really convertible into anything. Therefore any change in the amount of money will lead to more or less spending, but since resources are normally fully employed, more or less spending affects the price level primarily - the idea that prices are linked directly to the money supply is the quantity theory of money.

- Combining these propositions with competitive markets and the free play of interest by business executives, workers and consumers leads to a self-regulating economic system, one which employs resources fully and in the most efficient way possible. The logical or natural policy conclusion derived from this view is that of laissez faire or non interference by government in the running of the economy. Classical economics explained how employment, output and prices were determined, it predicted full employment would be the norm and it prescribed that governments should keep their hands off the economy. The formal classical model embodies the labour market, a theory linking both saving and investment to the rate of interest, and a theory of the price level. The theory that links saving and investment is essential to preserve the workings of Say's law in a money-using economy.
- There are two key propositions: the concept of the individual firm's production function (including the notion of diminishing productivity) and the principle of profit maximization.
- Individual firm's production function assumes that the quantity and quality of capital and natural resources as well as the level of technology is fixed, then the output of the individual firm will depend not on the quantity of labour it employs. Classical economists assume that entrepreneurs always attempt to maximize profits, consequently, entrepreneurs will be guided by the profit maximization principle in the use of labour. Essential to the most profitable use of labour is the principle of diminishing returns or diminishing productivity. According to the principle of diminishing productivity, the additional product resulting from the employment by the firm of additional units of labour will become smaller and smaller as the total labour used increases. In response to increased employment, the marginal physical product of additional units of labour will decline. What interests a firm is the yield that results from the employment of additional amounts of labour. This depends not only on the additional output it gets from additional labour, the marginal physical product, but also on the price at which additional units of output are sold. In a purely competitive market, the firm is concerned, this means all output can be sold through the value of the firm's marginal physical product will inevitably decline as more labour is employed.
- Profit maximization requires each firm adjust its level of operations to the point at which the value of additional output is just equal to the cost of that output. When this principle is applied to employment, it means that a firm should adjust its employment to that point at which the cost for the last units of labour hired is just equal to the value of the marginal physical product of that labour. The cost to a firm of the additional or marginal amounts of employment depends not on the number of additional workers hired and the prevailing money wage.
- The classical theory of labour market consists of the demand for and supply of labour and the production function. Employment is determined by the interaction of the demand for and supply of labour, and output through the production function is determined but the employment level - the equilibrium level.
- In the classical analysis both the demand for and the supply of labour are a function of the real wage (w/p), the real wage represents the purchasing power of the money wage and in a competitive economy is the value of the marginal product of labour. Individuals in their economic behavior seek to maximize their satisfaction or gain. For the business executives this means maximizing profit, and for the worker or consumer, it means maximizing the satisfaction to be obtained through consumption.
- When business executives hire labor or use more of any resource, they will employ more labour up to the point at which the marginal product of the last unit hired is just equal to the real wage. This is how the gain from the use of labour is maximized. Because of the economic law of diminishing marginal productivity, when more labour is employed, the added product from the additional units of labour will decline. The price at which additional units of output can be sold will decline. Thus the real wage (w/p) must decline if the business firm is to use more labour. By applying this relationship to the whole economy, the classical economists derived an aggregate demand curve for labour that slopes downward to the right. The demand for labour is an inverse function of the real wage. By the application of the maximization postulate to the supply of labour, they derived the aggregate supply of labour. Just as business executives seek to maximize the gain from the employment of labour, workers in offering their labour services seek to maximize their incomes. Since the real wage reflects the purchasing power of the money wage,

maximizing their incomes will also maximize the satisfaction derived from consumption. Therefore the utility (satisfaction) of the real wage must overcome the dissatisfaction (irksomeness) of work if more people are to be employed. Consequently, the classical aggregate supply curve of labour slopes upward to the right - this shows that the supply of labour is a direct function of the real wage. The functional relationship between the supply of labour and the real wage is also based on the classical assumption that workers and other resource owners do not suffer from the money illusion - refers to a failure to perceive that the dollar or any other unit of money expands and shrinks in value. The monetary unit is believed to be stable in value, and thus a rise in money income is considered, ipso facto, a rise in real income. In an economy suffering from the money illusion, the supply of labour could just as easily be a function of the money wage as the real wage. Money to the classical economist, is fundamentally a medium of exchange, means to an end, classical economists thought the use of money should not obscure the fact that basically the economic process is concerned with an exchange of goods for goods. Money is significant only because it is more convenient to have a generally accepted medium of exchange than barter. The implication of such a view is that resource owners, including workers, will value the services of their resources in terms of the real returns they can command. Money does not affect real output - money is neutral.

- The classical demand and supply curves for labour show how the interaction between these two curves determines the level of employment in the economy. The equilibrium level must be one of full employment. If any unemployment - aside from frictional unemployment - exists after equilibrium is obtained, it has to be voluntary. The classical analysis implies that if non-frictional unemployment persists after the equilibrium situation, it is because some workers are demanding wages too high in relation to the marginal productivity of labour. The workers are unemployed because of their refusal to accept lowest wages, their unemployment must be regarded as voluntary. If they would accept a reduction in money wages, the real wage would decline, other things being equal, and more employment would be forthcoming.
- The employment level is one of full employment because the classical theory maintains that money wage bargains between workers and entrepreneurs determined the real wage, consequently, the workers in general are in position to determine their real wage (through money wage bargains) and therefore the level of employment. Any unemployment that exists at a given level of real wages has to be voluntary unemployment, frictional unemployment aside.

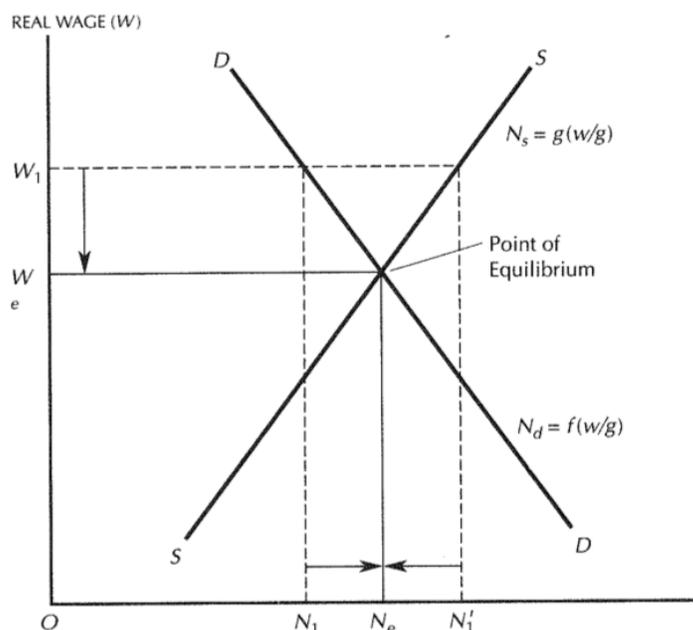


FIGURE 3-1 The Demand for Labor, the Supply of Labor, and the Equilibrium Level of Employment. If the real wage (W) is at the level W_1 , then the quantity of labor demanded (ON_1) will fall short of the quantity supplied ON_1' . Thus, the real wage will fall and labor demanded and labor supplied will shift to an equilibrium.