Keynesianism and U.S. Economic Transformation: Institutional Challenges, Policy Limits, and Global Interdependence

Hiroaki Hayakawa*
Chuo University, Japan

Abstract

This paper presents a historically grounded reinterpretation of Keynesianism within the context of U.S. economic development and the transformation of global capitalism. It traces the progression of Keynes's original insights into structural Keynesianism—a framework that synthesizes macroeconomic stabilization, institutional reform, and a power-sensitive approach to political economy. The analysis examines this evolution through the development of institutionalist, post-Keynesian, new Keynesian, and heterodox schools of thought, while critically engaging with competing paradigms such as monetarism, rational expectations, supply-side economics, computational macroeconomics, and game theory. The trajectory of Keynesianism has been shaped by major economic crises—including the Great Depression, stagflation, the 2008 financial crisis, and the COVID-19 pandemic—each of which has exposed the limitations of prevailing orthodoxies and prompted theoretical and institutional adjustments. These changes have occurred within an environment characterized by rapid technological innovation, globalization, and increasing market concentration. In this setting, power elites have consolidated their interests through rent-seeking enabled by regulatory capture and state capture, progressively diminishing transparency and accountability in economic governance. The paper further analyzes how widening income and wealth disparities, along with the concentration of financial and corporate power, threaten the stability and resilience of democratic institutions. This synthesis demonstrates that structural Keynesianism provides a robust framework for comprehending the current dynamics of the U.S. economy, which plays a central role in maintaining the global order of trade and capital flows, while facing challenges such as concentrated power, rent extraction, rising inequality, institutional erosion, emerging geopolitical threats, and the risk of protectionist measures.

Keywords: Keynesianism, classical economics, major crises, market power concentration, distributional disparities, institutional failures, regulatory reform, institutional adaptation, global order

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* Professor (Retired), Chuo University, Japan;
742-1 Higashinakano, Hachioji-shi, Tokyo 192-0393; Email: hayakawah2@r4.dion.ne.jp
Tel: (81) 42 350 0487, Fax: (81) 42 350 0487; ORCID: 000-0003-0286-3873

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1. Introduction: The Great Depression, Transformation, and the Enduring Relevance of Keynesianism

The crash of 1929 and the ensuing Great Depression transformed not only the U.S. economy but also the intellectual foundations of economic thought. What began as a financial shock rapidly metastasized into a systemic collapse—industrial production declined, banks failed in waves, unemployment skyrocketed, and deflation exacerbated the crisis. The scale and persistence of the downturn shattered confidence in classical doctrines that assumed markets would self-correct through flexible prices and wages. Early policy responses, including monetary contraction and fiscal austerity, only worsened conditions, leaving governments without practical tools to restore stability. This intellectual and policy vacuum opened the way for John Maynard Keynes, whose *General Theory of Employment, Interest, and Money* (1936) revolutionized macroeconomics by explaining why demand shortfalls could endure, why markets often failed to recover on their own, and why active government intervention was indispensable.

Keynes's insights marked a fundamental turning point. By arguing that effective demand, rather than supply-side equilibrium, determines output and employment, he demonstrated how investment pessimism, uncertainty, and liquidity traps can lock economies into prolonged stagnation. This recognition shifted policy from passive reliance on "sound finance" toward active fiscal management designed to sustain full employment. In doing so, Keynes not only challenged prevailing orthodoxy but also laid the intellectual foundation for the modern welfare state, postwar economic governance, and the enduring role of government as stabilizer of last resort.

Over subsequent decades, Keynesianism evolved through both refinement and contestation. The rise of rational expectations and real business cycle theory in the 1970s sought to restore classical principles by framing fluctuations as equilibrium responses to real shocks and by dismissing discretionary policy as ineffective. In turn, New Keynesians responded by incorporating price rigidities, imperfect competition, and informational frictions into formal models, reaffirming the case for stabilization policy within a more microfounded framework. Yet the most significant evolution of Keynesianism has not been merely theoretical. Real-world crises—from the stagflation of the 1970s to the financial collapse of 2008 and the pandemic shock of 2020—have repeatedly demonstrated that the stability of capitalism cannot be understood in isolation from the institutional structures and power dynamics that shape it.

Today, these institutional dimensions are more urgent than ever. The rise of platform economies, financialization, and concentrated corporate power has led to the emergence of new forms of market dominance and rent extraction. Regulatory capture and institutional inertia have weakened governments' ability to adapt, while globalization and technological disruption have heightened inequalities in income, wealth, and opportunity. These structural imbalances recall Keynes's warnings about the dangers of excessive speculation and underconsumption, but they also extend them into new domains where economic and democratic resilience are at stake. For professionals in law and policy, the implication is clear: economic governance must now contend not only with cyclical instability but also with the systemic risks posed by concentrated power, distorted incentives, and institutional misalignment with evolving markets.

In this light, Keynesianism remains indispensable not only as a toolkit for managing recessions but as a comprehensive framework for addressing capitalism's structural weaknesses. Its core insight—that market economies are not inherently self-correcting—remains as relevant today as it was in the 1930s. The central challenge now is not simply whether fiscal and monetary policy can stabilize demand, but whether institutions can evolve rapidly enough to ensure broadly

shared growth, resilient financial systems, and the continued ability of democracy to regulate capitalism in the public interest.

Reviewing the evolution of Keynes's original insights through stages of debates between the opposing camps of economic thought and our understanding of how inequity in income and wealth distributon and erosion of democratic governance has energed over the years through power concentration, this paper argues for a renewed Keynesian institutionalism that integrates three essential elements: first, reforming and recalibrating institutions both domestically and internationally to curb rent-seeking and economic concentration that extend beyond national borders; second, deploying robust fiscal and monetary stimulus to manage crises—whether financial, pandemic-related, or geopolitical—with institutional readiness for deployment and reforming; and third, coordinating these efforts in line with global interdependence to mitigate systemic risks globally. Without such a structural approach, the United States and other closely linked economies risk entering a deepening cycle of inequality, financial fragility, and democratic erosion.

2 Keynes' Contributions

In *The General Theory*, John Maynard Keynes shifted macroeconomic analysis from the classical view of self-adjusting markets to the central role of aggregate demand in determining output and employment. He rejected the assumption of automatic full-employment equilibrium, arguing that economies could settle at various levels of output depending on effective demand, which explained fluctuations in economic cycles and unemployment.

Keynes's theory integrated the consumption function, investment function, liquidity preference, and aggregate demand schedule to show how changes in spending drive economic activity. He demonstrated that nominal rigidities in prices and wages prevent automatic adjustment to full employment, challenging the classical belief that flexible markets always clear. Keynes also critiqued the loanable funds theory of interest rates, introducing the liquidity preference theory, which emphasized the role of money demand and market expectations in determining interest rates.

His framework introduced key concepts such as the marginal propensity to consume, the marginal efficiency of capital, and the interest elasticity of money demand, all of which explain how fiscal and monetary policies can amplify or dampen economic activity. Keynes highlighted the instability of investment due to uncertainty and the multiplier effect, showing how economies can experience prolonged unemployment and underutilization of resources.

Ultimately, Keynes's work transformed macroeconomic thinking by linking goods and labor markets through price and wage rigidities, emphasizing expectations, and integrating real and financial sectors. Rather than overthrowing classical economics, Keynes generalized it, demonstrating that equilibrium can exist at multiple levels of output and employment depending on aggregate demand. Later Keynesian developments formalized and extended these insights, deepening the theoretical foundations of modern macroeconomics.

3 Early Solidification: The IS-LM Model

One of the earliest and most influential formalizations of Keynesian economics in the United States was Alvin Hansen's (1953) development of the IS-LM framework, building on John Hicks's (1937) initial formulation. Hansen extended Keynes's insights into a systematic model linking goods and money markets, providing graphical and algebraic representations of macroeconomic equilibrium. This framework became central to postwar Keynesian economics, serving as a key analytical tool for evaluating fiscal and monetary policy. Hansen also played a pivotal role in

popularizing Keynesian economics in the U.S., advocating fiscal policy as the main instrument for economic stabilization and helping institutionalize Keynesian macroeconomics in academia and policymaking.

Beyond the IS-LM model, Hansen incorporated the accelerator principle, which posits that net investment is directly related to changes in output or income. In *Business Cycles and National Income* (1951), Hansen emphasized how the interaction between the multiplier effect and the accelerator could drive cyclical economic fluctuations. His collaboration with Paul Samuelson led to the multiplier-accelerator model (Samuelson, 1939), illustrating how these dynamics can generate business cycles even without external shocks.

Hansen's work laid the foundation for large-scale Keynesian macro-econometric models, pioneered by Lawrence Klein and Arthur Goldberger (Klein, 1950; Klein & Goldberger, 1956). These models used statistical techniques to estimate relationships among macroeconomic variables, aiming to empirically validate Keynesian policy prescriptions and enable governments to forecast the effects of fiscal and monetary interventions.

However, early Keynesian econometric models faced challenges, particularly in formulating expectations and dealing with data limitations. Their reliance on historical data and adaptive expectations often led to errors in predicting business cycle turning points, a weakness exposed during the 1970s by unanticipated supply shocks and stagflation. The inability to anticipate simultaneous inflation and unemployment undermined confidence in Keynesian forecasting.

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4 Later Solidification: Aggregate Demand and Aggregate Supply

The IS-LM framework was later expanded into the aggregate demand and aggregate supply (AD-AS) model. In this model, aggregate demand reflects the equilibrium between the IS and LM curves, while aggregate supply represents labor market equilibrium and the transformation of labor input into output via the aggregate production function (Blanchard, 2017). A central debate in this framework concerns the price elasticity of aggregate supply. Classical and monetarist perspectives maintain that, in the long run, aggregate supply is vertical, meaning output is determined by capital, labor, and technology rather than shifts in aggregate demand (Friedman, 1968). In contrast, Keynesians argue that short-run aggregate supply is upward-sloping due to nominal rigidities—such as sticky wages and prices—which allow output to respond to policy interventions (Mankiw, 2001).

This dynamic is especially evident in the treatment of price expectations. Under the adaptive expectations hypothesis (Cagan, 1956), workers adjust their inflation expectations gradually,

extrapolating from past price changes. Expansionary monetary or fiscal policies can temporarily boost output by exploiting the gap between actual and expected inflation; workers perceive higher real wages and supply more labor, increasing production. However, as expectations adjust, this effect fades and output returns to its natural level, preserving long-run neutrality (Phelps, 1967).

The inflationary episodes of the late 1960s and 1970s suggested that workers and firms may not be as systematically misled as adaptive expectations imply. This led to the development of rational expectations theory (Lucas, 1972, 1976), which posits that economic agents use all available information, including anticipated policy changes, in wage and price setting. As a result, anticipated policies do not systematically affect real output, since expectations adjust before policy implementation (Sargent & Wallace, 1975).

This theoretical shift underpinned the New Classical critique of Keynesian stabilization, emphasizing policy ineffectiveness and the importance of credibility and supply-side factors in macroeconomic performance. Keynesians responded by incorporating rational expectations into their models while retaining nominal rigidities. The New Keynesian framework, particularly the New Keynesian Phillips Curve, demonstrates how wage and price stickiness allow policy to influence real activity in the short run while maintaining long-run neutrality (Clarida, Galí, & Gertler, 1999).

5 Key Statutes that Delineate Economic Responsibility

In response to recurring economic fluctuations, the United States enacted key statutes that define the responsibilities of the federal government and the Federal Reserve System, particularly with respect to employment and price stability. These laws institutionalized Keynesian principles by reinforcing the role of active government intervention in economic management.

The Employment Act of 1946 established it as the continuing policy and responsibility of the federal government to use all practicable means, in cooperation with industry, agriculture, labor, and state and local governments, to promote maximum employment, production, and purchasing power. The Act directed the government to foster conditions under which there will be useful employment opportunities for those able, willing, and seeking to work, but it stopped short of guaranteeing a job for every American. It also created the Council of Economic Advisers to assist the President in preparing an annual Economic Report to Congress, outlining economic conditions and recommending policies to achieve these goals.

The Full Employment and Balanced Growth Act of 1978 (Humphrey-Hawkins Act) amended the 1946 Act by requiring the President to set explicit short-term and medium-term numerical goals for employment, unemployment, and inflation, and to report annually to Congress on progress toward these goals. The Act also mandated that the Federal Reserve submit semiannual reports to Congress detailing its monetary policy objectives and how they align with the goals of maximum employment, production, and reasonable price stability. While the Act articulated targets (such as reducing unemployment to 3% for persons aged 20 and over and inflation to 3% or less), these were aspirational and not legally binding. The Act further formalized the expectation of active government and monetary policy intervention to promote full employment and balanced growth.

The Federal Reserve Reform Act of 1977 amended the Federal Reserve Act of 1913 by explicitly directing the Federal Reserve to "maintain long run growth of the monetary and credit aggregates commensurate with the economy's long run potential to increase production, so as to promote effectively the goals of maximum employment, stable prices, and moderate long-term interest rates." This statutory language established what is commonly known as the Federal

Reserve's "dual mandate" (though it includes three goals), making the Fed explicitly responsible for both employment and price stability, and increasing its accountability to Congress.

Collectively, these statutes affirmed the Keynesian view that economic fluctuations require active policy responses. They established the principle that government intervention—through fiscal measures such as public investment and deficit spending, and through monetary measures such as interest rate adjustments and liquidity provision—is essential for maintaining macroeconomic stability.

However, these interventions have also generated controversy. Critics argue that government and Federal Reserve policies can themselves become sources of economic instability, as the timing and magnitude of interventions may not always align with business cycles. Monetarists, led by Milton Friedman (1968), contended that improper monetary policy could contribute to instability rather than stability, emphasizing the importance of controlling the money supply rather than relying on discretionary interventions. New Classical economists, notably Robert Lucas (1976), further challenged Keynesian prescriptions by arguing that rational expectations and market-clearing mechanisms render discretionary policies ineffective. These critiques led to equilibrium-based theories that highlight supply-side factors, productivity shocks, and market efficiency as primary drivers of economic fluctuations.

Keynesians have responded by adapting their theories. New Keynesian economists, such as Mankiw and Romer (1991), incorporated microeconomic foundations and emphasized market imperfections, such as wage and price stickiness, which justify government intervention. The financial crises of 2008 and the COVID-19 pandemic revived Keynesianism, as governments worldwide employed aggressive fiscal stimulus to stabilize their economies, demonstrating the continued relevance of interventionist policies.

While these acts remain central to economic governance, the ongoing debate between Keynesians, Monetarists, and New Classical economists underscores a fundamental question: How effective are fiscal and monetary policies in stabilizing the economy, and is government intervention always necessary? Keynesians maintain that actively addressing market disequilibria is crucial, especially during financial crises, to prevent catastrophic downturns such as the Great Depression, the Panic of 1907, and the 2008 financial crisis. This intellectual debate has strengthened both perspectives, shaping the evolution of macroeconomic policy and highlighting key institutional misalignments that must be addressed to ensure sustained growth, efficiency, and equity.

6 The Disequilibrium Approach in Keynesian Economics: Clower and Leijonhufvud

A major critique of traditional Keynesian models is their lack of microeconomic foundations. Standard Keynesian analysis, especially within the IS-LM framework, often assumes price and wage rigidity without explicitly modeling the underlying processes that generate disequilibrium. In response, Robert Clower and Axel Leijonhufvud developed disequilibrium macroeconomics, shifting the focus from rigid prices and wages to the dynamic constraints in goods and labor markets that prevent full market clearing. Rather than presuming rigidity, they examined how economic agents behave under quantity constraints, showing how these disequilibrium dynamics shape macroeconomic outcomes.

Clower (1965) introduced the dual-decision hypothesis, challenging the Keynesian assumption that consumers always optimize based on their full income potential. He argued that when involuntary unemployment exists, households adjust their consumption and savings decisions according to their constrained income, not an equilibrium wage. This perspective linked

demand shortfalls in the goods market to persistent unemployment, offering a more dynamic explanation of Keynesian unemployment beyond wage stickiness. By highlighting the interdependence of labor and goods markets, Clower demonstrated that unemployment results not only from rigid wages but also from insufficient demand. His work laid the foundation for non-Walrasian disequilibrium models, which explore how price and quantity constraints in one market can propagate to others, reinforcing economic stagnation.

Building on Clower's insights, Axel Leijonhufvud's *On Keynesian Economics and the Economics of Keynes* (1968) argued that Keynes's main concern was not simply wage or price rigidity, but systemic coordination failures in decentralized economies. According to Leijonhufvud, unemployment arises from the inability of firms and households to synchronize expectations and decisions amid uncertainty and imperfect information. He emphasized disequilibrium dynamics, showing that economies can remain far below full employment due to slow or misaligned adjustment mechanisms. His concept of corridor stability illustrated that while self-correcting forces may absorb minor shocks, larger disturbances can push the economy out of this corridor, leading to cumulative declines and prolonged recessions. Leijonhufvud's work further advanced the development of non-Walrasian models.

7 Extensions to Coordination Failures and Multiple Equilibria

The disequilibrium approach subsequently influenced *theories of coordination failure*, formalizing the idea that the economy may converge to multiple equilibria depending on how agents form expectations and interact. Russell Cooper and Andrew John (1988) introduced the concept of *strategic complementarities*, describing situations in which the optimal choices of individual economic agents depend on the decisions of others. When firms anticipate low demand (corresponding to low choices by others), they tend to reduce hiring and investment, thereby reinforcing a low-output equilibrium. Conversely, if firms expect high demand (i.e., high choices by others), they tend to increase production, leading to a higher-employment equilibrium. This framework highlighted how recessions can persist due to coordination failures, even in the absence of fundamental productivity shocks.

Another extension of Keynesian thought was the development of multiple-equilibria models in macroeconomics. Dixon (1990) demonstrated that self-fulfilling expectations can generate multiple equilibria, in which the economy may become trapped in a low-demand state even without adverse shocks. Farmer (1999) advanced this perspective by incorporating financial markets into coordination failure models, showing that fluctuations in confidence—often transmitted through asset prices—can themselves drive macroeconomic cycles. This line of research highlights how expectations and financial dynamics interact to create instability, underscoring the importance of stabilization policies to prevent self-reinforcing downturns.

While disequilibrium models are often criticized for their mathematical complexity, limited empirical support for certain assumptions (such as persistent quantity constraints), and failure to fully address rational expectations or the practical challenges of policy implementation, they still reinforce a key insight of Keynesian economics. By illustrating how economies can become stuck in suboptimal equilibria due to coordination failures, these models support the notion that active fiscal and monetary intervention is necessary to steer the economy toward better outcomes.

8 Asymmetric Information in Economics

The concept of asymmetric information, introduced in the 1970s by George Akerlof (1970), Michael Spence (1973), and Rothschild & Stiglitz (1976), challenged the classical assumption of

perfect information in markets. Asymmetric information arises when one party in a transaction possesses superior knowledge, leading to inefficiencies such as adverse selection —where high-risk individuals dominate a market —and moral hazard —where hidden actions distort incentives. These insights fundamentally transformed the economic understanding of rational agency, influencing labor markets, insurance, finance, education, and policy design, and providing a foundation for modern contract theory and regulatory policies.

(1) Asymmetric Information and Wage Rigidity: Efficiency Wage Theories

A key implication of asymmetric information is the persistence of wage rigidity and involuntary unemployment. Efficiency wage theories, as developed by Stiglitz (1984) and Shapiro & Stiglitz (1984), posit that firms rationally pay above-market wages to address informational constraints that prevent them from distinguishing between high- and low-productivity workers. The principal mechanisms are: (1) productivity enhancement—higher wages deter shirking by increasing the opportunity cost of job loss; (2) turnover reduction—efficiency wages help retain skilled employees and reduce recruitment and training costs; and (3) adverse selection—if firms offer only average wages, high-productivity workers may perceive the wage as insufficient and seek employment elsewhere, while low-productivity workers are more likely to accept such offers. To attract and retain high-productivity workers, firms set wages above the market average, accepting the risk of attracting some lower-productivity applicants, to improve the overall quality of the workforce.

Akerlof and Yellen (1985) further introduced the concept of near-rationality, highlighting that minor deviations from perfect rationality—attributable to menu costs, cognitive limitations, coordination costs, and considerations of efficiency wages—can engender substantial macroeconomic effects, including persistent rigidities in wages and prices. These mechanisms explain why wages do not invariably adjust downward during economic downturns, thereby resulting in sustained unemployment —a phenomenon that aligns with Keynesian insights.

(2) Financial Market Imperfections: Credit Rationing and Adverse Selection

Rothschild and Stiglitz (1976) established the theoretical foundation for adverse selection, demonstrating how asymmetric information can lead to market inefficiencies. Building on this, Stiglitz and Weiss (1981) demonstrated that lenders, unable to assess borrower risk perfectly, engage in credit rationing rather than simply raising interest rates. Higher rates disproportionately attract riskier borrowers, who are more likely to undertake projects with greater downside risk for lenders, thereby increasing the likelihood of loan defaults. As a result, even creditworthy firms and households may be denied loans, exacerbating economic downturns by restricting investment and consumption. These findings provide a theoretical basis for understanding financial crises, where credit contractions can lead to severe declines in output, validating Keynesian concerns about the role of aggregate demand during downturns caused by financial market imperfections.

(3) Asymmetric Information, Signaling, and Human Capital Accumulation

Signaling games offer a way to understand how markets function with asymmetric information through signaling. In labor markets, Spence (1973) demonstrated that although firms look for productive workers, they cannot directly measure individual productivity. As a result, education acts as a costly signal. In a separating equilibrium, productive workers pursue more education because it costs them less, while less productive workers rationally abstain, since the cost outweighs potential wage increases. Firms then reward higher education with higher wages, interpreting it as proof of productivity. Conversely, in a pooling equilibrium, education provides no useful information, and firms pay all workers a wage based on average productivity. In this

scenario, neither worker group has a strong reason to differentiate, and education becomes an ineffective signal to distinguish between them. Importantly, in Spence's model, education does not directly boost productivity; instead, it functions as a signal to distinguish worker types.

In contrast, Becker's (1964) human capital theory considers education as directly increasing productivity, thereby elucidating wage disparities as returns to skill. Both perspectives perceive the labor market as a filtering mechanism—whether through signaling inherent ability (Spence) or by gauging acquired productivity (Becker). In either paradigm, financial obstacles to education may distort results by restricting access for talented individuals, either as a signal or as a method of augmenting marketable productivity, thus potentially impeding economic growth.

These dynamics become especially important during downturns when firms cut back on hiring regardless of an individual's educational background, thereby reducing both the signaling value and the productivity benefits of education. This intensifies Keynesian concerns about underused resources and involuntary unemployment, as even capable workers stay idle. Such inefficiencies justify interventions, such as subsidized education and job training, which can help preserve human capital and support economic growth.

(4) Regulatory Implications and Policy Responses

Asymmetric information within labor and financial markets necessitates regulatory intervention to rectify market failures and stabilize economic activity. In the labor market, policies such as minimum wages, unemployment insurance, and job training programs counteract the adverse effects of efficiency wages and persistent unemployment. In the financial market, where it is challenging to monitor risk-taking and speculative activities, financial regulation, prudential supervision, capital adequacy requirements of financial institutions, and deposit insurance serve to mitigate systemic risks and prevent financial crises. Simultaneously, central banks act as lenders of last resort to address liquidity shortages. Fiscal intervention is particularly critical during economic downturns, especially when credit markets malfunction. Without such intervention, wage rigidity and job losses, as well as financial contraction, may worsen downturns and destabilize the economy. Historical episodes, such as the 2008 financial crisis and the Great Depression, underscore the vulnerability of financial markets and the risks associated with insufficient regulation. These events demonstrate that government intervention is not merely desirable but indispensable for correcting market inefficiencies and maintaining economic stability.

9. Sticky Prices, Wages, and Monopoly Power

Nominal rigidities—especially the slow adjustment of prices and wages—are a cornerstone of Keynesian economics. These rigidities prevent markets from self-correcting rapidly, leading to prolonged deviations from full employment and justifying counter-cyclical policy interventions. Several mechanisms contribute to these rigidities, including menu costs, contractual agreements, bounded rationality, and monopoly power in goods and labor markets, all of which influence macroeconomic stability.

One principal explanation for sticky prices is the concept of menu costs, as formalized by Mankiw (1985). Menu costs refer to the expenses firms incur when adjusting prices, such as printing new catalogs or updating systems. Although these costs may seem minor, they can prompt firms to delay price changes, especially in response to small demand fluctuations. When many firms simultaneously postpone price adjustments, the aggregate price level remains inflexible, impeding the self-correcting mechanism of classical economics and potentially exacerbating recessions.

Wage stickiness arises from several sources. Long-term contracts (Taylor, 1980) specify fixed wages over extended periods, limiting firms' ability to adjust labor costs in response to

economic changes. Efficiency wages, in which firms pay above-market rates to boost productivity and reduce turnover, lead to wage rigidity even during downturns. Insider-outsider dynamics further entrench wage rigidity and persistent unemployment, as incumbent workers resist wage cuts while unemployed outsiders lack bargaining power (Lindbeck & Snower, 1988).

Monopoly power also reinforces price rigidity. Firms with monopolistic characteristics, including those in monopolistic competition, possess pricing authority and can set prices strategically rather than responding immediately to market pressures. Romer (1993) explains how New Keynesian models incorporate imperfect competition and monopoly power into price determination, showing that firms with market power tend to set prices above marginal cost and resist price reductions during recessions, thereby prolonging output losses. Blanchard and Kiyotaki (1987) further formalize these effects in macroeconomic models.

Strategic complementarities in price setting further contribute to price stickiness. Firms rarely make decisions in isolation; Ball and Romer (1990) demonstrated that individual firms consider competitors' pricing behavior when setting their own prices. If firms expect others to maintain prices, they are likely to refrain from making adjustments themselves, reinforcing overall price rigidity. This phenomenon, illustrated by Cooper and John's (1988) model of coordination failures, shows that price rigidity stems not only from market frictions but also from strategic decision-making among firms.

The persistence of nominal rigidities has significant macroeconomic implications. Keynesian models show that output gaps and unemployment can persist without policy intervention, highlighting the crucial role of monetary and fiscal policies in stabilizing the economy. Monetary policy remains effective when prices and wages adjust slowly, influencing real activity without immediately causing inflation (Clarida, Galí, & Gertler, 1999). Fiscal policy is especially impactful in the short run, notably when monetary policy is constrained by the zero lower bound and nominal rigidities persist (Romer & Romer, 2010). Inflation targeting is also advocated to facilitate real wage adjustments without nominal wage cuts, thereby mitigating labor market rigidities (Akerlof, Dickens & Perry, 1996). As long as nominal rigidities persist, New Keynesian economists emphasize the necessity of policy intervention.

10 The Rise of Monetarism

Milton Friedman, the key architect of modern monetarism, argued that changes in the money supply mainly influence output through their effects on nominal spending and inflation, while challenging the effectiveness of Keynesian fiscal policy. He believed that monetary policy, rather than fiscal intervention, is the main cause of economic fluctuations. Friedman and Schwartz (1963) provided empirical evidence that contractionary monetary policy worsened the Great Depression, supporting the idea that fluctuations in the money supply drive business cycles. According to the quantity theory of money, increases in the money supply initially raise aggregate demand and output, but over the long term, prices adjust and output returns to its natural level (the level that is neither inflationary nor deflationary), making monetary policy's real effects temporary.

Friedman (1970) further critiqued Keynesian fiscal policy, arguing that deficit-financed government spending crowds out private investment by raising interest rates, thereby limiting its expansionary impact. He also introduced the permanent income hypothesis, emphasizing that individuals adjust their expectations and savings in anticipation of future tax burdens, which consequently diminishes the effectiveness of fiscal stimulus. Friedman's monetarist perspectives prompted a strategic transition towards monetary targeting during the 1970s and 1980s, thereby reducing Keynesian fiscal activism. Nonetheless, the limitations inherent in strict monetarism—

particularly the instability of money velocity—necessitated refinements in monetary policy frameworks.

(1) Friedman Challenged the Stability of the Phillips Curve

Milton Friedman's (1968) address to the American Economic Association fundamentally challenged the Keynesian interpretation of the Phillips curve, which posited a stable trade-off between inflation and unemployment. Introducing adaptive expectations, Friedman argued that while expansionary monetary or fiscal policy may reduce unemployment in the short run, this effect dissipates as workers and firms adjust their inflation expectations based on past trends. As expectations catch up, real wage gains vanish, and the economy returns to its natural rate of unemployment (corresponding to the natural output level). This reasoning underpins the expectations-augmented Phillips curve, which holds that only unexpected monetary shocks can affect real output, while systematic policy changes influence only nominal variables such as inflation. Friedman thus demonstrated that the Phillips curve is endogenous to policy and expectations, not a fixed relationship.

(2) Friedman Challenged the Keynesian Consumption Function

The Keynesian consumption function correlates current consumption with current income, serving as a foundation for the theory of income determination and the multiplier effect. Milton Friedman (1957) challenged this perspective with the Permanent Income Hypothesis (PIH), which posits that consumption is determined by permanent income, formally defined as the annuitized present value of anticipated lifetime earnings (human wealth). While Keynesian theory indicates that increases in current income significantly influence current consumption, Friedman's PIH suggests that short-term income increments, such as tax rebates, exert only limited effects on consumption, as such gains are spread over a lifetime, thereby diminishing the efficacy of fiscal stimulus. Empirical evaluations, including Hall's (1978) random walk hypothesis, yield mixed results. Also, the presence of liquidity constraints, precautionary savings, or credit market imperfections—either empirically or analytically—affects the responsiveness of current consumption to current income and, consequently, the magnitude of the multiplier effect (Flemming, 1973; Flavin, 1981; Deaton, 1991; Carroll, Holm, & Kimball, 2021). Nonetheless, Friedman's insights into lifetime planning and resources have significantly influenced macroeconomic models by emphasizing the forward-looking behavior of economic agents. This approach laid the foundation for the rational expectations revolution and the advancement of contemporary intertemporal consumption theories.

11 The Rational Expectations Revolution and the Critique of Keynesian Policy

The concept of rational expectations was initially introduced by John Muth (1961), who posited that price expectations should not be constructed using *arbitrary or* backward-looking rules. Instead, they should represent the expected value of the equilibrium price derived from the model itself. This suggests that agents utilize all available information and the model's structural framework to form expectations that align with the model's equilibrium. It is this concept that Robert Lucas (1972, 1976) and Thomas Sargent (1973, 1979) incorporated into macroeconomic models to illustrate that stabilization policies are ineffective—the policy ineffectiveness proposition, which refutes the Keynesian assertion that systematic policy can influence output and employment. Their scholarly contributions catalyzed the development of New Classical macroeconomics, a paradigm rooted in microfoundations, market clearing, and forward-looking expectations.

(1) Key Contributions of Lucas and Sargent

Robert E. Lucas Jr.'s "Econometric Policy Evaluation: A Critique" (1976) questioned the reliability of large-scale macroeconometric models for policy analysis, arguing that their parameters—based on historical data—fail to remain stable when policy regimes change. Since economic agents adjust expectations and behavior endogenously, models that ignore these dynamics produce misleading forecasts.

From the 1950s to the early 1970s, several major econometric models shaped policy design and forecasting. The Klein–Goldberger model (1955), developed by Lawrence Klein and Arthur Goldberger, was among the first comprehensive econometric representations of the U.S. economy. It was followed by the Brookings Model (1965; revised 1969), directed by James Duesenberry, Gary Fromm, Lawrence Klein, and Edwin Kuh—a sectorally disaggregated system linking consumption, investment, government, trade, and monetary behavior for aggregate forecasting and policy simulation. The FRB–MIT–PENN model (developed in the early 1970s), coordinated by Bert Hickman and colleagues from the Federal Reserve, MIT, and the University of Pennsylvania, further integrated fiscal and monetary mechanisms, becoming a central tool for policy evaluation.

While these models advanced empirical macroeconomics and guided mid-century stabilization policy, Lucas's critique exposed their key limitation: structural relationships derived from past data could not reliably predict outcomes once policy changes altered agents' expectations and behavior.

Sargent (1973, 1979) expanded on Lucas's work by developing models that incorporated rational expectations into inflation and unemployment dynamics. He and Neil Wallace (1975) formulated the expectations-augmented Phillips curve, which demonstrated that attempts to stimulate the economy through monetary expansion would only lead to higher inflation without reducing unemployment when agents form rational expectations. Sargent later attributed the stagflation of the 1960s and 1970s to Keynesian policy programs that, in his view, failed to account for the role of expectation (Lucas & Sargent, 1979, pp. 6-8).

It is essential to note in this regard that empirical research has demonstrated that actual expectations formation often diverges from the rational expectations assumption. Survey data and micro-level studies indicate that households and firms usually rely on adaptive or information-constrained processes, adjusting their expectations gradually based on past inflation rather than instantaneously incorporating all available information (Coibion, Gorodnichenko, & Kamdar, 2018). This gradual adjustment helps explain the persistence of inflation cycles and stagflation, phenomena more consistent with Friedman's adaptive expectations hypothesis than with rational expectations. As a result, the rational expectations revolution did not entirely refute the validity of Keynesian models, especially in environments where expectations are formed adaptively or under information frictions.

(2) Pros and Cons of Rational Expectations

The rational expectations approach established a microeconomic foundation for macroeconomics by emphasizing the forward-looking, optimizing behavior of rational agents. It provided a coherent framework for evaluating economic policy by recognizing that agents adjust their expectations and actions in anticipation of policy changes. By incorporating expectations endogenously—rather than assuming adaptive behavior—it explained policy effects within models grounded in optimizing decision-making, reinforcing the idea of monetary and fiscal policy neutrality under predictable regimes.

However, Keynesian economists raised major criticisms. Rational expectations models assume that all agents possess the same information and can process it efficiently—an unrealistic

assumption in economies characterized by costly, uneven, and uncertain information. Akerlof (1970) and Stiglitz and Weiss (1981) demonstrated how asymmetric information leads to adverse selection, credit rationing, and market inefficiencies that are overlooked by these models. Moreover, the notion that all agents can accurately predict others' reactions to policy changes overlooks coordination failures and behavioral complexity. Rational expectations also fail to explain nominal rigidities, unemployment, and persistent disequilibria observed in real economies. As Summers (1991) argued, many such models function more as abstract theoretical "fables" than as empirically grounded representations of economic behavior.

12. Real Business Cycle (RBC) Theory: The Core Premise and Logic

Rational expectations models laid the foundation for Real Business Cycle (RBC) theory and the rise of computational macroeconomics. Developed by Kydland and Prescott (1982), RBC theory attributes business cycles primarily to real, supply-side shocks, especially technological innovations, rather than to monetary or demand disturbances. Building on Solow's (1957) growth accounting framework, which identified technological progress as the dominant source of long-term output growth, RBC models posit that fluctuations in total factor productivity (TFP) drive variations in output, labor supply, and investment.

Households and firms are assumed to be forward-looking, intertemporally optimizing agents who adjust consumption, work effort, and investment in response to expected productivity changes. With flexible prices and wages ensuring continuous market clearing, observed unemployment is interpreted as voluntary, reflecting optimal labor–leisure choices rather than involuntary job loss due to deficient demand. Consequently, economic downturns are viewed as efficient adjustments to real shocks, implying that stabilization policies cannot systematically improve welfare or correct cyclical fluctuations.

RBC theory is criticized for downplaying demand-side shocks, such as shifts in consumer confidence, investment cycles, and financial crises. It contends that recessions stem from reductions in the voluntary labor supply, which contradicts evidence of involuntary unemployment during downturns. While RBC models explain long-run growth, they struggle to account for short-term, demand-driven crises, such as the Great Depression or the 2008 financial crisis.

13 Dynamic Stochastic General Equilibrium (DSGE) Models

As the Real Business Cycle (RBC) theory matured, computational methods became indispensable for solving increasingly complex macroeconomic models, leading to the development of Dynamic Stochastic General Equilibrium (DSGE) frameworks. These models derive aggregate outcomes from microfoundations: households maximize utility and firms maximize profits, subject to stochastic shocks such as technological innovations or policy changes. Early DSGEs extended the RBC logic by incorporating refinements—namely, nominal rigidities, financial frictions, and heterogeneous agents—that allow for richer transmission mechanisms between demand and supply in policy evaluation. For example, Smets and Wouters (2007) demonstrated how a Bayesian DSGE approach could be used to estimate and analyze the impact of various shocks and frictions on U.S. business cycles, providing policymakers with a powerful tool for simulating how fiscal and monetary interventions propagate through the economy.

Despite their sophistication, Dynamic Stochastic General Equilibrium (DSGE) models retain a foundational reliance on rational expectations and steady-state equilibrium structures. This reliance limits their ability to capture nonlinear, out-of-steady-state phenomena such as financial crises, sudden shifts in sentiment, and self-reinforcing collapse dynamics. Standard linearized

solutions assume only small perturbations around equilibrium, which prevents them from endogenously generating large-scale crises of the kind observed in practice. As Blanchard (2018) emphasizes, mainstream macroeconomic models often neglect the complex macro-financial interactions and behavioral heterogeneity that shape real-world instability.

In response to these shortcomings—made evident by the 2008 global financial crisis—macroeconomic modelers have sought to extend or transcend the conventional DSGE paradigm. One notable direction is the development of Heterogeneous Agent New Keynesian (HANK) models, as surveyed by Violante (2021). HANK models enrich the standard framework by incorporating financial frictions, distributional heterogeneity, and richer behavioral dynamics, allowing for a more realistic representation of household responses to shocks and the transmission of policy. This added complexity enables HANK models to capture nonlinearities, endogenous instability, and mechanisms of crisis propagation that standard linearized DSGEs struggle to reproduce.

A second direction involves Agent-Based Models (ABMs) or Agent-Based Computational Economics (ACE), which dispense with equilibrium altogether, embracing path dependency, emergent crises, and bounded rationality (Dilaver et al., 2018; Fagiolo & Roventini, 2012; Dawid, 2018). Both HANK and ABM approaches aim to address the limitations of traditional models by capturing adaptive behavior and mechanisms of crisis propagation, thereby offering a richer understanding of macro-financial instability in complex economies.

14 Game Theory in New Keynesianism and the New Classical Economics

Game theory has played a pivotal role in shaping both New Keynesian and New Classical economics—particularly through its analysis of how strategic agents make interdependent decisions. These agents —whether individuals, firms, or policymakers —select strategies to maximize their payoffs, which depend not only on their own actions but also on others' anticipated choices. At the core of game theory lies the Nash equilibrium, a set of mutually consistent strategies from which no player has an incentive to deviate unilaterally, given the strategies of others. Many forms of market disequilibrium, such as excess demand or unemployment, can be interpreted as Nash equilibria arising from agents' strategic behavior under imperfect coordination. When expectations enter the analysis, equilibrium also requires consistency between what agents foresee and what ultimately occurs. This leads to the concept of an expectations equilibrium, in which beliefs and realized outcomes coincide. The Rational Expectations Hypothesis formalizes this principle, asserting that individuals use all available information and correctly anticipate the effects of policies and market conditions. Rational expectations, however, are not confined to New Classical theory; they are also integral to Keynesian frameworks, which emphasize that agents form expectations strategically in response to one another’s actions within an interdependent economic system.

(1) Game theory in New Keynesianism

New Keynesian economists incorporated game-theoretic insights to demonstrate that real-world markets often exhibit coordination failures, nominal rigidities, and strategic interactions that justify government intervention. John Taylor (1979, 1980) and Stanley Fischer (1977) showed that when firms and workers set prices and wages under staggered contracts or menu costs, strategic complementarities emerge: if each firm expects others to keep prices fixed, it will also refrain from adjusting its own, resulting in persistent unemployment and short-run monetary non-neutrality. Extending this logic to labor markets, George Akerlof and Janet Yellen (1986) introduced the efficiency wage hypothesis, arguing that firms may rationally pay above-market wages to enhance

productivity and reduce turnover, thereby further undermining the New Classical view of frictionless adjustment.

Joseph Stiglitz (1987, 1991) advanced the case for policy coordination under multiple equilibria, demonstrating that economies may become trapped in self-reinforcing, low-employment equilibria when pessimistic expectations inhibit investment and demand. Credible and coordinated fiscal and monetary interventions, by influencing expectations, have the potential to shift the economy towards a higher-employment equilibrium—challenging the New Classical assertion of inherent policy ineffectiveness.

(2) Game Theory in New Classical Theory

Robert Lucas, Thomas Sargent, Finn Kydland, and Edward Prescott advanced the policy neutrality proposition by embedding rational expectations within game-theoretic frameworks. Their analyses demonstrated that anticipated policy interventions are often neutralized by the strategic, forward-looking responses of economic agents, leading to policy ineffectiveness.

Lucas (1972, 1976) formalized the rational expectations hypothesis by showing that individuals and firms anticipate policymakers' actions and adjust their behavior accordingly. As a result, systematic policy interventions lose their effectiveness because agents anticipate and internalize the expected policy effects in advance. Lucas and Sargent (1979) extended this reasoning in their critique of traditional Keynesian models, arguing that once expectations are rational, predictable monetary and fiscal policies cannot systematically influence real variables such as output and employment. Their work emphasized the necessity of integrating forward-looking expectations into macroeconomic models for credible policy analysis.

Kydland and Prescott (1977) expanded this framework through their theory of time inconsistency, which demonstrated that policymakers might have incentives to deviate from previously announced policies to exploit short-term trade-offs between inflation and output. Rational agents, however, anticipate such deviations, causing discretionary policy to lose credibility and produce suboptimal outcomes. This insight reinforced the case for rule-based policy frameworks, where credible, pre-committed rules constrain opportunistic behavior and enhance long-term stability.

Building on these foundations, Barro and Gordon (1983) developed a formal game-theoretic model of monetary policy that analyzed the repeated strategic interactions between central banks and the public. They showed that under discretionary regimes, policymakers' incentives to stimulate output through surprise inflation lead to an inflationary bias, as rational agents adjust their expectations accordingly. In contrast, commitment to rules or the establishment of a reputation for low inflation can discipline expectations, anchoring inflation and improving welfare without the need for constant policy intervention. Their model highlighted the crucial role of credibility and reputation as informal constraints that can substitute for formal policy rules.

Game theory thus provided a framework for analyzing the strategic interplay between policymakers and the public, revealing the informational, reputational, and expectation-driven mechanisms that determine the effectiveness of policy. Nonetheless, the impact of policy interventions remains complex and contingent, shaped by evolving information dynamics and the ongoing challenge of maintaining credible commitments in a changing macroeconomic environment.

15 Policy Intervention, Information Dynamics, Reputation Building, and Uncertainty

Policy intervention is inherently complex, entangled in uncertainty, reputation building, diverse information flows, and the strategic responses of rational agents—all of which shape the

evolving probability distribution of the economy's state. Two pivotal works by David Kreps illuminate this challenge.

Kreps' (1982) theory of reputation under imperfect information explains how economic agents, including policymakers, make strategic decisions to sustain their credibility. Consistent adherence to policy, such as the Federal Reserve's anti-inflation stance, can signal commitment and strengthen institutional trust. Yet, excessive rigidity risks policy inertia, where adherence to precedent hinders necessary adaptation to changing conditions. This tension between credibility and responsiveness lies at the core of New Keynesian and New Classical debates. New Keynesians emphasize the importance of credible commitments to guide expectations (e.g., forward guidance). In contrast, New Classical economists warn that overreliance on reputation can diminish flexibility and delay essential policy shifts.

Kreps' framework also suggests that reputation-building can yield suboptimal outcomes when policies fail to adjust to new realities. His earlier work, "Temporal Resolution of Uncertainty and Dynamic Choice Theory" (1978), underscores how agents revise their expectations as information evolves. When policymakers prioritize reputation, agents may interpret policy signals too rigidly, slowing adaptive responses across the economy. Kahneman and Tversky's (1979) prospect theory complements this insight by revealing how loss aversion fosters risk-averse behavior. If reputation-driven policies cause prolonged inflation or unemployment, agents' heightened sensitivity to losses may exacerbate downturns and slow recovery.

The interaction of reputation, imperfect information, and dynamic choice has profound implications for Keynesian stabilization policies. While Keynesianism supports active fiscal and monetary interventions, reputation-driven rigidity may blunt their effectiveness. From a New Classical perspective, rational agents anticipate predictable interventions, neutralizing systematic policy effects.

Barro and Gordon's (1983) time inconsistency model formalized this dynamic through a game-theoretic lens. They demonstrated that discretionary policies can create short-term surprises but ultimately lose credibility as agents adjust their expectations over time. Rule-based frameworks, by contrast, reduce inflationary bias and stabilize expectations, while reputational mechanisms can substitute for formal rules depending on agents' discount rates. Their analysis reinforced the argument that only credible, rule-based commitments—such as low, stable inflation—can sustain long-term stability.

Reputation under imperfect information thus creates a policy paradox: credibility enhances expectation management but can also lead to rigidity and delay in adjustment. Integrating insights from Kreps and prospect theory provides a nuanced critique of Keynesianism, suggesting that policies may falter when reputation is valued over adaptability. The challenge is to strike a balance between credible commitment and flexibility to respond to new data and shifting structural conditions.

In practice, economic agents rely on multiple information sources beyond those provided by policymakers. They weigh official statements against independent analyses from private institutions, academics, and market indicators. Divergence among these sources complicates interpretation. The Federal Reserve's emphasis on flexibility—its readiness to revise outlooks as data change—adds to uncertainty, as agents must judge whether policymakers possess superior information. When respected economists or institutions dispute the Fed's stance, agents must navigate competing narratives, which in turn influence investment, hiring, and financial decisions.

Policy uncertainty is further amplified by political cycles. Shifts in governing parties or ideologies can cause abrupt fiscal and monetary pivots, disrupting long-term planning. Firms

respond by diversifying strategies and maintaining liquidity buffers to hedge against policy risk. In a globalized economy, such unpredictability multiplies: U.S. policy shifts reverberate through interconnected markets, affecting investment and currency dynamics worldwide.

These challenges are compounded by technological innovation, which alters productivity, investment horizons, and information structures. The informational content of the real economy—defined by technological change and innovation—interacts with the informational content of policy, shaped by fiscal, monetary, and research decisions. Agents integrate both domains when forming expectations. Policymakers must therefore avoid both extremes: excessive rigidity that stifles innovation and erratic shifts that undermine institutional trust. A balanced approach acknowledges the multiplicity of information channels, adaptive agent behavior, political turnover, and the broader geopolitical context. Ultimately, effective governance may depend less on finely calibrating reputation and more on promoting transparency, consistency, and adaptive capacity in policy design. This approach can mitigate informational uncertainty and anchor expectations in a dynamic, innovation-driven economy.

Given the constant influx of new information, Bayesian decision-making provides a valuable framework for understanding how agents—whether households, firms, or governments—update beliefs under uncertainty. As new data emerge, agents adjust their probability assessments to minimize the divergence between expectations and reality. This iterative process reflects not only rationality but also the adaptive logic of survival in a changing environment.

The economy can thus be viewed as a complex adaptive system that continually expands its informational boundaries. Innovations—technological, institutional, or policy-based—broaden the scope of possible actions and enhance adaptability. Growth and stability emerge from the dynamic interplay between expanding information and evolving strategies. This perspective challenges the notion that policy can unilaterally steer outcomes; instead, it emphasizes the co-evolution of information, expectations, and institutions as the foundation of long-term resilience and prosperity.

16 The Financial Crisis, the Great Recession, and the Resurgence of Keynesian Economics

The 2008 financial crisis and the Great Recession (2007–2009) marked a turning point in economic thinking, challenging the rational expectations paradigm and revitalizing Keynesian analysis. The collapse of major financial institutions and the ensuing global downturn exposed the fragility of market mechanisms and underscored the need for government intervention. Keynesian concepts—such as demand deficiencies, liquidity traps, and financial frictions—regained importance as policymakers aimed to stabilize economies amid widespread economic contraction.

The financial crisis demonstrated that financial markets do not always function efficiently, contrary to the assumptions underlying rational expectations models. The destabilizing role of financial market imperfections, long emphasized by Bernanke and Gertler (1989), became evident as unregulated credit expansion and excessive risk-taking led to the implosion of the housing bubble. As the crisis deepened, monetary policy alone proved insufficient in countering the downturn. With interest rates at the zero lower bound, conventional monetary tools lost effectiveness (Krugman, 2009b), necessitating large-scale fiscal interventions. The American Recovery and Reinvestment Act (2009) marked a significant return to Keynesian policy, with Romer and Bernstein (2009) demonstrating that large-scale fiscal stimulus was essential for boosting employment and economic growth during the crisis.

Although these stimulus measures helped prevent a deeper downturn and stabilize financial markets, they did not address the underlying structural issues. Decades of deregulation left the financial sector increasingly detached from the real economy, concentrating wealth among elites

and saddling middle- and lower-income households with unsustainable debt. When the bubble burst, millions lost homes and jobs, while financial institutions received unprecedented bailouts, fueling public outrage over inequality. The crisis reignited concerns about widening income and wealth gaps, as corporate profits rebounded faster than employment and wages, leaving many workers facing stagnation and insecurity.

The financial crisis and Great Recession exposed the limitations of short-term Keynesian measures, which mitigated immediate impacts but failed to address long-term problems in financial regulation, labor markets, and income distribution. As a result, macroeconomic models now incorporate Keynesian insights on financial instability, demand fluctuations, and the effectiveness of policy. The crisis also underscored the need for institutional reforms to foster resilience, prevent future excesses, and promote economic equity.

The vulnerability of modern economies to financial instability is powerfully captured by Hyman Minsky's Financial Instability Hypothesis. Minsky argues that sustained prosperity encourages financial institutions to shift from hedge to speculative, and ultimately to Ponzi, finance, as risk-taking escalates in pursuit of higher yields (Minsky, 1977, 1986, 1992). His 1986 book, *Stabilizing an Unstable Economy*, is especially significant for systematically developing these concepts and demonstrating how endogenous financial dynamics foster asset bubbles that, when they burst, threaten the broader economy. Recent theoretical and empirical studies support Minsky's insights, showing that financial instability can arise from internal market dynamics even in the absence of external shocks (Solomon & Golo, 2014; Golo et al., 2015).

The 2007–2008 crisis vividly demonstrated these dynamics, exposing the destructive interplay among deregulation, speculative leverage, and systemic fragility. In response, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 introduced institutional reforms to reduce systemic risk. The Act imposed stricter risk oversight for systemically important financial institutions (Omarova, 2011; Omarova & Hockett, 2017) and implemented the Volcker Rule, which limits banks' proprietary trading and restricts their investments in hedge funds and private equity. These measures reflect a shift toward recognizing that financial stability requires not only supervision of individual firms but also constraints on high-risk activities across the financial system.

Beyond regulatory responses, post-Keynesian perspectives deepen our understanding of instability by linking financial fragility to structural power dynamics in the real economy. Frederic Lee and Tae-Hee Jo's (2018) social provisioning theory emphasizes that financial instability is not merely a consequence of mispricing risk, but of systemic market power. According to this framework, firms engage in markup pricing, influenced by industry norms, institutional factors, and profit targets. As financial and non-financial firms consolidate power through mergers, acquisitions, and financial innovations, they raise profit expectations and markups. This, in turn, drives the proliferation of complex financial products designed to deliver higher returns, reinforcing speculative tendencies and heightening systemic risk (Jo, 2017, 2021). This dynamic resonates with Thomas Piketty's (2014) observation that historically, the rate of return on capital has tended to exceed the economy's growth rate ($r > g$), a divergence fueled by monopolistic strategies and rent-seeking behavior that underpin financial concentration.

In this light, financial instability is best understood not as an anomaly but as a structural feature of capitalism, rooted in the interdependence between the financial and real sectors and mediated by institutionalized power relations. Keynes' original insight into the non-neutrality of finance—its capacity to shape, rather than merely reflect, real economic activity—has been inherited and expanded by post-Keynesians. Building on Minsky, Lee, and Jo, this tradition

highlights that cycles of instability and reform are driven by evolving institutions, concentrated market power, and firms' organizational routines. For policymakers, this underscores that sustainable financial stability cannot rest on technical fixes alone but requires continuous institutional reform that reins in speculative excesses, disciplines concentrated market power, and aligns financial practices with long-term social and economic goals.

17 The Role of Institutions in Managing Markets and Reducing Inequality

Joseph Stiglitz has consistently emphasized the necessity of institutional reforms to address economic inequality and ensure market stability. In *The Price of Inequality* (2012), he argues that unregulated markets often exacerbate disparities, leading to wealth concentration among a small elite and leaving significant portions of the population economically marginalized. Stiglitz advocates progressive taxation, strengthened labor market institutions, and regulation of rent-seeking behavior to mitigate these issues.

In *People, Power, and Profits: Progressive Capitalism for an Age of Discontent* (2019), Stiglitz introduces the concept of "progressive capitalism," which emphasizes government regulation of markets to promote social welfare and reduce inequality. He contends that markets alone cannot address systemic issues such as environmental degradation and social inequities, and proactive government intervention is essential.

Furthermore, in his article "Inequality and Democracy" (2023), Stiglitz links economic inequality to the erosion of democratic institutions. He argues that excessive wealth concentration undermines public trust in democracy and fuels the rise of authoritarian populism. Stiglitz calls for political reforms to make democracies more inclusive and responsive to citizens, alongside economic reforms to address the root causes of inequality.

In *The Road to Freedom* (2024), Stiglitz expands on these themes, directly challenging the neoliberal claim that unregulated markets promote individual freedom. He argues that extreme economic inequality does not enhance personal freedom but rather curtails it, as concentrated wealth translates into disproportionate political power, limiting economic opportunities for the majority. Stiglitz argues that markets must be embedded within a framework of democratic accountability and social responsibility to serve the collective good.

Several economists echo Joseph Stiglitz's call for institutional reforms to address economic inequality and market instability. Thomas Piketty, in *Capital in the Twenty-First Century* (2014), argues that unchecked capital accumulation leads to wealth concentration, necessitating progressive taxation and robust social policies to mitigate inequality. Similarly, Paul Krugman (2007) has highlighted the role of government intervention in correcting market failures and promoting equitable growth. In *The Conscience of a Liberal* (2007), he emphasizes the importance of social safety nets and regulatory frameworks in maintaining economic stability. These perspectives align with Stiglitz's advocacy for comprehensive institutional reforms to create a more equitable economic system.

17.1 The Rich-Get-Richer Dynamic: Market Failures and Structural Inequality

The persistence of inequality is not merely a function of individual effort but rather the outcome of systemic factors embedded in modern capitalist economies. Thomas Piketty (2014) highlighted the structural tendency of wealth accumulation to outpace economic growth, exacerbating inequality. He demonstrated that when the return on capital exceeds the overall economic growth rate, wealth naturally accumulates among those who already own assets, leading

to hereditary economic elites. This contradicts the notion of self-correcting markets and suggests that, without intervention, inequality will persist and continue to rise.

Empirical studies have reinforced these concerns. Saez and Zucman (2016) documented how wealth concentration in the United States reached levels not seen since the Gilded Age, with the top 0.1% controlling an increasing share of national wealth. The 2008 crisis accelerated this process, as asset prices rebounded faster than wages, benefiting financial elites disproportionately.

To counteract these forces, economists have proposed a new institutional framework that balances market efficiency with equity. Some key recommendations include Universal Basic Income (UBI) —a guaranteed income to counteract rising automation and wage stagnation (Van Parijs and Vanderborght, 2017) and Financial Market Regulation—stricter oversight of speculative finance to reduce systemic risks (Mian and Sufi, 2014).

The Great Recession underscored the limitations of unregulated capitalism and revitalized Keynesian thought. However, while countercyclical policies helped in the short term, they did not resolve deeper structural inequalities. Joseph Stiglitz, Thomas Piketty, and others argue that inequality is not an accident but a consequence of specific institutional choices. Moving forward, economic policy must focus on creating inclusive institutions, balancing efficiency with fairness, and ensuring that economic gains are broadly shared rather than concentrated at the top.

17.2 Regulating Rent-Seeking and Restoring Economic Democracy

Rent-seeking has become a pervasive challenge in modern market economies, as influential actors increasingly shape institutions and regulations to secure unearned advantages rather than foster productive activity (Olson, 1965, 1982; Krueger, 1974; Hirshleifer, 1991). This behavior manifests through corporate lobbying, monopolistic strategies, speculative finance, regulatory capture, and tax avoidance, all of which distort competition and impede sustainable growth. As economic power consolidates among a select few, democratic oversight erodes, fueling cycles of inequality and institutional decay. Tackling these issues demands robust regulation, progressive tax policies, and institutional reforms to revive economic democracy and align markets with public interests.

The expansion of financialization, deregulation, and technological monopolies has accelerated rent-seeking across global capitalism. Stiglitz (2012, 2016) highlights how corporate influence has shaped policies that disproportionately benefit the wealthy. Notable forms include: (1) monopoly and market concentration—major firms in technology, finance, and pharmaceuticals leverage their dominance to stifle competition and extract rents (Zingales, 2017); (2) regulatory capture—industry leaders sway policy through lobbying and campaign finance, resulting in rules that favor established interests (Gilens & Page, 2014); (3) financialization—speculative investment has widened wealth gaps, rewarding capital over labor (Mazzucato, 2018); and (4) tax avoidance—multinationals exploit loopholes and offshore havens, depriving governments of essential revenue (Saez & Zucman, 2016).

A comprehensive response to rent extraction and the erosion of economic democracy should include enforcing antitrust laws, dismantling monopolies, and supporting SMEs (Zingales, 2017; Wu, 2018). Limiting lobbying and campaign contributions, increasing transparency in public procurement, and strengthening protections for whistleblowers are also vital (Gilens & Page, 2014). Corporate governance must shift from prioritizing short-term shareholder returns to investing in workers, innovation, and sustainability (Stout, 2012), while speculative finance should be curbed through transaction taxes and stricter regulation (Mazzucato, 2018). Expanding worker representation on boards can help balance corporate power. Progressive taxation on capital gains,

inheritance, and high incomes, alongside coordinated efforts to combat offshore tax avoidance, is essential to reduce wealth concentration (Piketty, 2014; Saez & Zucman, 2016).

Unchecked rent-seeking deepens inequality and weakens democratic institutions, risking stagnation and instability. Revitalizing regulatory frameworks, progressive taxation, and corporate governance, together with stronger democratic oversight, is crucial for fair and efficient markets. As Stiglitz (2012, 2016) contends, well-designed institutions can redirect incentives toward productive activity, fostering a more inclusive and resilient economy. By confronting the structural distortions of monopoly, financialization, and political influence, policymakers can restore the balance between markets and democracy, ensuring prosperity is more widely shared.

18 Keynesianism, Technological Advancement, and Economic Equity for Democratic Resilience

The rapid advancement of artificial intelligence (AI), automation, and digital platforms presents profound challenges for economic equity and democracy. These technologies have the potential to increase productivity and innovation, but they also risk exacerbating inequality by displacing low-skill workers, concentrating wealth in technology-intensive sectors, and amplifying market power among dominant firms. If unaddressed, these trends could weaken civic engagement and erode democratic institutions by marginalizing large segments of the workforce and consolidating economic influence among a small elite.

Technological progress has historically been a double-edged sword. While past industrial revolutions ultimately created new jobs and increased overall prosperity, they also caused significant short-term dislocations and social upheavals. The current wave of automation and AI differs in several ways: job displacement without proportionate job creation as AI and robotics threaten to replace not just manual labor but also cognitive and creative work (Autor, 2015). New institutional frameworks are needed to address these effects, making it harder for workers to negotiate fair wages and conditions.

Addressing these challenges requires proactive policies that reshape labor markets, fairly distribute technological gains, and maintain a healthy balance between economic power and democracy. Keynesian economics, with its emphasis on aggregate demand management, government intervention, and full employment policies, offers several strategies: (1) Public investment in job creation and human capital, (2) more expansive public employment programs in sectors that are less susceptible to automation, such as education, healthcare, and infrastructure (Mazzucato, 2018), (3) Reskilling initiatives and lifelong learning programs to help workers transition to higher-value jobs in the digital economy (Acemoglu and Autor, 2011), and (3) a modernized social contract that ensures that displaced workers have access to income support, retraining, and career mobility pathways (Stiglitz, 2019). By integrating Keynesian insights with modern theories of economic justice, institutional design, and labor-market policies, policymakers can harness technological progress to foster inclusive and democratic economic development.

19 Capitalism, Institutional Failures, and Sociopolitical Instability

The problem of coordination failures, once central to American Keynesianism, has evolved into a broader challenge: how to align capitalism with institutions that can contain expropriative behavior while promoting growth and equitable distribution. This alignment is essential not only for economic stability but also for safeguarding democratic institutions from undue economic influence.

Keynesian liberalism, originally focused on underemployment and demand-driven fluctuations, now confronts a deeper issue: economic growth and development are inseparable from institutional evolution. While traditional Keynesianism managed aggregate demand to maintain full employment, modern thought asks how capitalism can operate within frameworks that foster both efficiency and fairness. Competing equilibrium-based theories must also address this, as all economic activity occurs within institutional contexts. If institutions are misaligned with capitalism's changing conditions, innovation and productivity may stagnate, limiting income growth.

This institutional perspective traces back to Coase (1960), who argued that if property rights are clearly defined and transaction costs are negligible, parties will bargain to an efficient allocation of resources, regardless of the initial distribution of rights. Since capitalism is fundamentally a system of property rights, resource allocation and income distribution hinge on how these rights are assigned and transferred. In a frictionless world, resources would flow to their most efficient uses, but in reality, transaction costs—stemming from legal, historical, and social factors—often obstruct this process. Addressing these barriers is a core concern of institutional economics, as explored by Commons, Williamson, North, Ostrom, Hodgson, and others.

The stability and prosperity of capitalist economies depend on the adaptability of their institutional structures. Economists have shown how legal systems, regulations, and market mechanisms shape outcomes, especially amid technological change, globalization, and rent-seeking. As capitalism evolves, so must its institutions, ensuring that economic power does not undermine social and democratic stability.

Anthony Downs (1957) warned that citizens may abstain from political participation because their individual impact is negligible. This rational ignorance threatens democracy, which relies on civic engagement to check capitalism's excesses. Thus, institutional reform must encompass both economic and political spheres.

Joseph Stiglitz's Perspective on Economic Freedom

Joseph Stiglitz, recognizing that capitalism cannot function without institutions, challenges the notion that unfettered markets inherently yield optimal outcomes. He argues that without appropriate regulatory frameworks, markets can foster monopolies and exacerbate economic disparities, ultimately leading to societal grievances and instability. According to Stiglitz, true economic freedom is not merely about minimizing government intervention; rather, it requires institutions that ensure fair competition, curb rent-seeking behavior, and address income inequality.

This perspective fundamentally contradicts Milton Friedman's *"Capitalism and Freedom"* (1962) and Friedrich Hayek's *"The Road to Serfdom"* (1944), both of which promote the idea of minimal government intervention on the grounds that free markets are equivalent to individual liberty. Their positions mirror an American interpretation of the Austrian School's neoliberalism. Joseph Stiglitz contests this viewpoint, asserting that, even with formal regulatory oversight, markets can still be prone to uncompetitiveness, which may result in the concentration of economic power and social unrest.

The Development of Institutional Economics and Historical Observation

A wide range of scholars—including Commons, North, Ostrom, Hodgson, Acemoglu, Johnson, and Robinson—have shown that institutional frameworks are central to governing resources, fostering economic growth, ensuring equitable wealth distribution, and preventing

overuse of common resources. Their research, grounded in historical evidence, demonstrates how institutions shape development.

John R. Commons (1924, 1934) pioneered the idea that capitalism relies on legal institutions to enforce contracts and property rights, providing stability and predictability. He argued that institutions are path-dependent and must adapt to economic disruptions to support equitable growth. Building on this, Williamson (1975, 2000) developed Transaction Cost Economics, explaining that firms arise to internalize transactions when contracts are incomplete and asset specificity is high, emphasizing the importance of property rights and enforcement.

North (1990) further argued that well-defined property rights and effective legal systems are essential for growth, as they lower transaction costs and create a stable environment. However, vested interests often resist institutional change. Ostrom (1990) complemented this by showing that successful governance of common-pool resources depends on decentralized, adaptive, and overlapping institutions, rather than rigid top-down control. Hodgson (2015) expanded the framework, defining institutions as systems of social rules that structure interactions, and stressing that their continuous adaptation is vital for growth and stability.

These scholars converge on two key points: (1) Institutions—both formal (laws, regulations) and informal (norms, customs)—shape economic outcomes by defining property rights and reducing transaction costs within specific historical and cultural contexts; (2) Institutions must evolve with technological change and external shocks to maintain efficiency and equity.

This perspective underscores that economic development and equitable distribution depend on robust institutional frameworks. Today's challenge is to address institutional coordination failures and ensure capitalism remains aligned with institutions that promote both growth and equity. As rent-seeking and wealth concentration intensify, institutional reform becomes increasingly urgent. Since institutional change is driven by governing bodies, aligning capitalism with democracy is essential for effective reform.

Acemoglu, Johnson, and Robinson have extensively analyzed the role of institutions in development. In "The Colonial Origins of Comparative Development" (2001), they show that colonial powers established extractive or inclusive institutions based on local conditions, with lasting effects on global inequality. In "Why Nations Fail" (2012), Acemoglu and Robinson argue that inclusive economic and political institutions are crucial for sustained growth, while extractive institutions impede it. Their recent work, "Power and Progress" (2023), demonstrates that the benefits of technological change depend on institutional arrangements governing distribution. Their research reinforces that institutions are the primary determinants of economic trajectories: inclusive institutions foster innovation and prosperity, while extractive ones perpetuate inequality and stagnation.

Sociopolitical Instability and Institutional Failures

Arrow-Debreu's general equilibrium theory separates resource allocation from income distribution, claiming that perfect competition yields Pareto efficiency and any initial endowment can be supported as a competitive equilibrium with proper redistribution. Yet, this model ignores equity and social sustainability.

In practice, market imperfections are structural. Monopoly power—driven by technology, scale, or digital platforms—allows elites to accumulate wealth and influence. When innovation shifts toward rent-seeking, income is extracted without value creation, undermining efficiency and welfare. Economic power can capture political and regulatory institutions, entrenching inequality and reducing institutional flexibility.

Concentrated wealth and power breed discontent, weaken motivation, and fuel unrest, increasing uncertainty and depressing productivity and investment. These dynamics risk stagnation and crisis, while unresponsive institutions exacerbate inequality and erode democratic legitimacy. Institutional reform is needed to link efficiency with equity and restore confidence through inclusive, rule-based governance.

General equilibrium theory abstracts from institutional asymmetries and power dynamics, missing how unequal distribution and political inertia create systemic risks to capitalism's stability and democracy's integrity—a structural failure, not just a market failure. Gupta and Venieris (1981) stressed the need to integrate sociopolitical instability into economic analysis. Empirical studies confirm its macroeconomic costs: instability discourages savings and capital accumulation (Stewart & Venieris, 1985); inequality heightens political tension and retards growth (Venieris & Gupta, 1983, 1985, 1986); instability lowers investment and productivity (Alesina et al., 1996); and hinders capital formation and productivity growth (Aisen & Veiga, 2011).

These findings highlight the importance of responsive institutions for growth and cohesion. Persistent inequality and exclusion increase instability and undermine policy effectiveness. As North (1990) and Acemoglu, Johnson, and Robinson (2001, 2005) argue, inclusive institutions are essential for long-term prosperity. Sociopolitical instability should be seen as a symptom of institutional and distributive failures, requiring governance rooted in equity, adaptability, and democratic accountability.

The Crisis of Democracy in an Age of Economic Power Concentration

This consolidation generates monopoly rents and deepens inequality. As Piketty (2014) shows, when returns on capital outpace economic growth, wealth concentrates among capital owners, forming an "economic aristocracy" with outsized political influence. Gilens and Page (2014) empirically demonstrate that U.S. policy increasingly reflects elite preferences, as concentrated wealth translates into lobbying, campaign finance, and regulatory capture.

The erosion of democratic responsiveness signals a shift to what Crouch (2004) calls post-democracy: institutions remain formally democratic, but corporate and financial elites dominate policymaking. Neoliberal restructuring has accelerated this trend. Brown (2015) argues that neoliberalism turns citizens into consumers, commodifies public goods, and replaces deliberative democracy with technocratic governance, eroding accountability and civic trust.

Fraser (2013, 2022) extends this critique, showing how neoliberalism co-opts progressive movements into market-conforming frameworks that stabilize rather than challenge domination. Legal systems further entrench inequality; Pistor (2019) demonstrates how "legal coding" in corporate governance, intellectual property, and tax arbitrage creates mechanisms that insulate wealth from democratic control and weaken state fiscal capacity.

This architecture of rent-seeking, legal engineering, and regulatory capture produces a dual crisis: it discourages productive investment, fosters stagnation, and erodes the fiscal foundations of governance. As tax avoidance and inequality deepen, public revenues decline, constraining Keynesian countercyclical policy and weakening democratic legitimacy. A feedback loop emerges—diminished institutions amplify rent-seeking and financialization, thereby suppressing growth and hollowing out the state's policy capacity.

This dynamic echoes Schumpeter's (1942) warning that capitalism's vitality depends on entrepreneurial innovation, which monopolies and entrenched elites can extinguish. Today, consolidation—rather than creative destruction—defines capitalism's trajectory, turning growth into a zero-sum game prone to instability.

In sum, contemporary capitalism undermines the institutional foundations required for Keynesian policy. When democratic institutions are subordinated to concentrated wealth and fiscal sovereignty eroded by global capital, macroeconomic management loses traction. Reviving Keynesian instruments demands not just technical reforms but a political-economic transformation that restores democratic authority and public control over economic power.

20 Post-Keynesianism, Heterodox Economics, and Antitrust in Democratic Capitalism

The intellectual legacy of Keynesian economics has been carried forward through Post-Keynesianism and further developed in heterodox traditions that emphasize institutional structures, power dynamics, and social provisioning. Keynes (1936) rejected the classical view of markets as self-equilibrating systems, instead emphasizing the roles of uncertainty, aggregate demand, and institutional frameworks in shaping economic outcomes. Alfred Eichner (1976) deepened this insight by demonstrating that modern economies must be understood as historically contingent, institutionally structured processes rather than as neutral, self-correcting markets.

Building on Eichner, scholars such as Frederic Lee and Tae-Hee Jo (Lee, 1998; Lee & Jo, 2018; Jo, 2021) advanced a heterodox framework that conceives of the economy as a dynamic process of social provisioning. In this perspective, economic activity is embedded in evolving institutional structures and power relations. Social surplus—the output above subsistence needs—is collectively produced, contested, and distributed among workers, corporations, and the state (Jo & Todorova, 2016). Distribution is not the outcome of impersonal market forces but of institutional arrangements and political struggles. William Dugger's (1989, 1992) radical institutionalism reinforces this analysis by demonstrating how corporate hegemony and state stratification embed inequality into the very structures of capitalism, ensuring that large corporations exercise disproportionate influence over both economic and political life.

This institutionalist tradition inherits the Keynesian concern for full employment, equity, and stability, but embeds it within a broader critique of power. Its insights clarify why antitrust policy is indispensable to both economic performance and democratic governance. A competitive economy is not the natural state of markets but the product of deliberate institutional structuring. Historically, antitrust policy was conceived by Louis Brandeis as a democratic safeguard against the concentration of economic power. Yet, the turn to Robert Bork's consumer welfare standard reduced antitrust to a narrow focus on price effects (Wu, 2018). This shift legitimized unprecedented mergers and acquisitions, accelerating the concentration of corporate power, reducing labor bargaining capacity, and channeling an ever-greater share of social surplus toward economic elites (Lee & Jo, 2018). The consequences include widening inequality, regulatory capture, and what Stiglitz (2019) describes as "state capture," where corporate elites wield influence over legislatures, regulatory agencies, and courts.

To understand the stakes of this transformation, it is essential to recall Keynes's original vision. In *The General Theory*, Keynes (1936) was deeply concerned with the systemic instability of capitalism, which, left unchecked, produced unemployment, inequality, and social unrest (Ch. 3, Ch. 24). He argued that full employment was the cornerstone of economic and political stability, insisting that governments must actively manage aggregate demand through fiscal and monetary policy (Ch. 10, Ch. 22). At the same time, Keynes recognized that institutional reforms were required to stabilize expectations, channel investment, and ensure that markets operated within boundaries that served the broader public good (Ch. 12, Ch. 24). His rejection of wage flexibility as a cure for unemployment (Ch. 19), along with his advocacy of large-scale public investment

and the socialization of investment (Ch. 24), reflected a conviction that economic stability was inseparable from institutional design and democratic will.

Keynes's vision already implied a role for structural policies, including mechanisms akin to modern antitrust, to prevent markets from devolving into oligopoly or financial dominance. His call for "the socialization of investment" was not central planning, but democratic oversight to allocate surplus toward socially beneficial ends (Keynes, 1936). Post-Keynesians and heterodox economists have continued this tradition, arguing that full employment and equity are unattainable if elites capture economic institutions. Structural Keynesianism extends this insight, recognizing that antitrust and democratic governance are essential to sustaining the conditions for achieving Keynesian goals.

In today's global economy, antitrust must go beyond national boundaries. Transnational corporations exploit fragmented regulations and jurisdictional gaps to consolidate dominance and extract rents (Lee & Jo, 2021). Addressing these dynamics requires coordinated global responses. Foster and Thelen's (2022, 2024) concept of coordination rights provides a normative foundation, reframing competition policy to define which collective economic arrangements are permissible. This allows antitrust to support not only the prevention of monopolistic abuses but also cooperative initiatives that serve public purposes, such as labor protections, climate action, and equitable supply chains.

A recalibrated antitrust approach should respond to global capitalism while anchoring policy in democratic values. Domestically, Congress should move beyond the narrow consumer welfare standard and affirm broader goals such as democratic accountability, labor rights, innovation, and systemic resilience (Sanders, 1999). This pluralist mandate would restore antitrust as both an economic and constitutional safeguard. Effective implementation requires more than statutory reform: agencies like the FTC and DOJ need greater resources, independence, and insulation from corporate influence to proactively shape market structures and prevent excessive concentration (Berk, 2009). A modernized framework should also incorporate coordination rights, permitting sectoral bargaining, collaborative innovation, and climate initiatives—forms of cooperation that advance the public interest without eroding competitive discipline (Foster & Thelen, 2024). This dual emphasis on enforcement and constructive coordination positions antitrust as a foundational tool for reconciling competition with democratic legitimacy and long-term sustainability.

Reconnecting antitrust to structural Keynesianism is crucial. Keynesian objectives—full employment, wage stability, and equitable distribution—require democratic governance that institutionalizes these aims. Yet democracy is undermined when concentrated corporate power captures the state. As Berk (2009) shows, Brandeis's vision of regulated competition sought markets that foster innovation and accountability. In the context of globalization and digital capitalism, this means integrating antitrust with industrial policy, social protections, and transnational governance to align competition and innovation with public purposes (Ergen & Kohl, 2023).

Structural Keynesianism must be understood as inseparable from antitrust and democracy. Competitive markets, sustained by strong and coordinated antitrust policy, reduce reliance on reactive government intervention by securing wages, protections, and innovation within fair institutions. Because corporate power is global, domestic reforms must be matched by international coordination across areas such as taxation, digital platforms, and regulation (Pond, 2023). Without such coordination, global elites will continue to exploit loopholes, exacerbating inequality and undermining policy and democratic legitimacy.

Thus, antitrust is not solely an economic tool but a fundamental pillar of democratic capitalism. By restoring antitrust to its intended purpose within the Keynesian paradigm—namely, safeguarding workers, fostering innovation, and ensuring equitable distribution—societies can reconstruct the institutional foundations vital to democracy's prosperity. Structural Keynesianism, underpinned by institutional reforms and safeguarded by antitrust enforcement, provides a framework for governing global capitalism that allocates surplus towards human well-being rather than elite accumulation.

21 U.S. Budget Deficits and the Evolution of Expanding Government Expenditure: Structural, Social, and Geopolitical Drivers and Dilemmas

The traditional view of U.S. budget deficits has often been grounded in Keynesian economic theory, which holds that fiscal imbalances are justified as countercyclical tools to stabilize aggregate demand during economic downturns (Keynes, 1936). However, over the past several decades, the persistent and expanding nature of government deficits reveals a more complex set of drivers that transcend the boundaries of short-term demand management. These include structural economic changes, demographic pressures, geopolitical commitments, and responses to global crises. This section traces the evolution of U.S. budget deficits and debt accumulation, emphasizing how the growing scale and scope of government expenditure reflect deeper systemic and institutional transformations, with significant implications for both domestic economic health and global stability. It also highlights the dilemma the U.S. economy faces in this globalized economy, where free capital mobility and offshore production are common.

Beyond Keynesianism: The Expanding Functions of Fiscal Spending

While Keynesian economics laid the theoretical foundation for deficit spending during recessions, the trajectory of U.S. fiscal policy in the post-war era has steadily broadened its scope. This expansion reflects not only the need to stabilize aggregate demand but also a response to evolving socio-political imperatives and structural economic realities that have shaped the government's role in the economy.

A central development in this evolution has been the growth of social welfare and redistribution programs. Since the 1960s, an increasing share of government expenditure has been devoted to social insurance and welfare initiatives such as Medicare, Medicaid, and Social Security. These programs emerged as democratic responses to rising inequality, economic dislocation, and aging demographics (Piketty, 2014; Stiglitz, 2012). As a result, public expectations have shifted, with the state now seen as responsible for managing economic insecurity and promoting social mobility. Over time, the institutionalization of social spending has created fiscal inertia, making it difficult for policymakers to reduce expenditures even as debt levels rise.

Alongside these domestic priorities, geopolitical commitments and military expenditures have exerted persistent fiscal pressures. The United States' role as a global hegemon has required substantial and sustained military spending, driven by defense commitments, foreign interventions, and global security interests (Barro, 1989; Skidelsky, 2018). The wars in Iraq and Afghanistan, as well as ongoing obligations to NATO and other strategic alliances, demonstrate how national security imperatives can sustain long-term deficits, even when direct economic returns are limited.

Structural economic shifts and globalization have also transformed the landscape of fiscal policy. The rise of globalization and financialization has hollowed out the U.S. industrial base and disrupted traditional employment sectors. This has led to increased reliance on government transfers and stimulus spending to mitigate the adverse effects of job displacement (Rodrik, 2011).

Consequently, fiscal policy has evolved into a compensatory mechanism for economic transitions that market forces alone have been unable to resolve.

In recent years, the state's fiscal role has expanded further in response to systemic crises, particularly in the realms of the environment and public health. Environmental disasters and global health emergencies have necessitated significant emergency outlays. For example, the COVID-19 pandemic prompted unprecedented fiscal interventions to stabilize the economy, protect public health, and support households and businesses (Milanovic, 2016). These responses underscore the evolving expectations of the state as an insurer of last resort amid systemic vulnerabilities.

The Historical Trajectory of U.S. Deficits and Debt

Since the 1980s, the history of U.S. federal deficits has been marked by pivotal moments shaped by evolving ideas, economic challenges, and international developments. Rather than following a linear path, these fiscal episodes reflect significant shifts in the government's role in the economy and changing political consensus regarding public finance.

A decisive turning point occurred during the Reagan era, which marked a departure from post–World War II fiscal orthodoxy. The administration's adoption of supply-side principles, notably through the Economic Recovery Tax Act of 1981, introduced substantial tax reductions. At the same time, Cold War imperatives led to a major expansion in defense spending. These measures aimed to stimulate growth by enhancing incentives for private investment, entrepreneurship, and labor participation, under the assumption that lower marginal tax rates would generate enough growth to offset revenue losses. However, the anticipated surge in growth did not materialize as predicted. A key reason was the policy misalignment between expansionary fiscal policy and contractionary monetary policy. While the federal government pursued stimulus through tax cuts and spending, the Federal Reserve, under Chairman Paul Volcker, raised interest rates aggressively to combat entrenched inflation. This monetary tightening suppressed borrowing and aggregate demand, inducing a deep recession in the early 1980s. The discordant mix of expansionary fiscal stimulus and restrictive monetary policy undermined the supply-side strategy. Although inflation was eventually contained, the economy endured stagnation and persistently high unemployment. The simultaneous occurrence of high inflation and joblessness—stagflation—challenged both Keynesian and monetarist paradigms.

Meanwhile, the combination of tax cuts and sustained defense spending led to a dramatic fiscal deterioration. Between 1981 and 1986, the federal deficit more than tripled, rising from $74 billion to over $221 billion (Office of Management and Budget, 2023). Although inflation and interest rates later declined, the widening deficit stemmed primarily from reduced revenues and persistent military outlays. This period institutionalized deficit tolerance in U.S. fiscal governance, establishing a precedent for the structural budget imbalances that continue to define the U.S. political economy. Scholarly analyses confirm that aggressive tax reductions and increased military spending during the early 1980s were the primary drivers of these unprecedented peacetime deficits (Poterba, Stockman, & Schultze, 1994).

The 1990s represented a brief period of fiscal improvement. Under President Bill Clinton, strong economic expansion, moderate tax increases—particularly under the Omnibus Budget Reconciliation Act of 1993—and constrained discretionary spending helped generate budget surpluses from 1998 to 2001. These surpluses were fueled by capital gains tax windfalls during the dot-com boom, rather than by deep structural reforms (Office of Management and Budget, 2000). Despite their symbolic value, these surpluses were not embedded in a long-term fiscal framework and were soon reversed by tax cuts under the Bush administration, increased security

expenditures following the September 11 attacks, and the bursting of the tech bubble. As Stiglitz (2010) notes, the surpluses were politically fragile and ultimately unsustainable without systemic changes.

The post-2000 era ushered in a new phase, where fiscal deficits became more deeply linked to systemic crises and the evolving responsibilities of the federal government. Following the September 11 attacks, the United States embarked on extended military campaigns in Afghanistan and Iraq, financed mainly through borrowing rather than taxation. These engagements contributed to a rising debt-to-GDP ratio and entrenched the practice of deficit spending for geopolitical ends (Bilmes, 2013). The 2008 global financial crisis marked another turning point. In response to collapsing credit markets and widespread economic contraction, the federal government implemented aggressive fiscal interventions, including the $700 billion Troubled Asset Relief Program (TARP) and the $831 billion American Recovery and Reinvestment Act (ARRA). These measures, while necessary to prevent deeper economic collapse, significantly expanded the federal deficit (Krugman, 2009a). This trajectory was further intensified by the COVID-19 pandemic. In 2020 alone, the U.S. government enacted over $5 trillion in fiscal relief packages, including the CARES Act and the American Rescue Plan. These interventions reflected a broadening conception of the state's role—not just as a counter-cyclical agent, but as a stabilizer of last resort in the face of existential shocks (Tooze, 2021; Reinhart & Rogoff, 2010b). Thus, the post-2000 era is characterized by a normalization of large-scale deficit spending, not merely as a product of Keynesian cyclical policy, but as a structural response to globalization, geopolitical volatility, and social vulnerability.

Fiscal Expansion and the Geopolitics of Monetary Hegemony

Despite rising debt levels, the United States has managed to sustain persistent fiscal deficits without experiencing typical adverse outcomes such as runaway inflation or crowding out private investment. This anomaly is largely attributable to the dollar's status as the world's primary reserve currency and the strong global demand for U.S. Treasury securities (Blinder, 1981). As long as investors perceive U.S. debt as safe and liquid, the federal government enjoys what Eichengreen describes as an "exorbitant privilege"—the ability to borrow extensively at low cost.

This unique position enables what Blinder (1981) termed "deficits without tears," allowing the U.S. to finance ongoing shortfalls without immediate macroeconomic repercussions. However, risks persist. Summers (2016) warns that unchecked structural deficits could eventually undermine investor confidence, increase interest rate volatility, and constrain the government's capacity to respond to future crises.

The sustainability of U.S. monetary hegemony depends not only on market confidence but also on the geopolitical and institutional foundations of the global financial system. As the issuer of the dominant reserve currency, the U.S. dollar anchors global trade, capital flows, and debt settlements, granting the United States an outsized role in financial governance and shielding it from constraints faced by other debtor nations (Tooze, 2018). Yet, this privileged position comes with responsibilities: reckless fiscal expansion, political dysfunction, or inflationary mismanagement could erode U.S. credibility and prompt moves toward currency diversification, destabilizing global liquidity and financial stability (Reinhart & Rogoff, 2010a).

In this context, U.S. fiscal policy functions not merely as a domestic tool but as a global variable. While sustained deficits may be manageable in the short term due to international demand, they carry systemic risks. Maintaining this balance requires prudent fiscal management,

institutional credibility, and forward-looking reforms to ensure long-term sustainability in an increasingly multipolar financial order.

Reinterpreting Keynesianism in a Global Context

Deepening global interdependence and persistent structural imbalances call for a reinterpretation of Keynesianism—one that extends beyond national demand management to embrace global fiscal coordination, institutional integrity, and inclusive governance. While traditional Keynesian policy focused on countercyclical fiscal interventions, the scale of government deficits in the U.S. and elsewhere now reflects more profound structural changes driven by globalization.

Although Keynes is often regarded as a theorist of domestic stabilization, he also envisioned an international economic order grounded in coordinated finance. His role in creating the Bretton Woods institutions—the IMF and World Bank—demonstrated his conviction that national stability depends on global cooperation (Skidelsky, 2003). In today's interconnected markets, this insight is increasingly relevant. The aftermath of the 2008 financial crisis and the COVID-19 pandemic exposed the limits of fragmented national responses and underscored the need for coordinated global fiscal action (Tooze, 2018). Without such cooperation, stimulus efforts risk devolving into zero-sum competition and geopolitical instability.

A significant barrier to equitable Keynesianism is the dysfunction of political capitalism, marked by rent-seeking and institutional capture. Stiglitz (2012) argues that inequality stems not only from markets but also from political choices shaped by vested interests, with elites exploiting fiscal and regulatory systems through preferential tax codes and subsidies, thereby undermining public spending and accountability. Similarly, Acemoglu and Robinson (2012) show that extractive institutions entrench inequality and impede growth.

Addressing these failures requires more than fiscal adjustments—it demands institutional reform. Expanding the state's fiscal role without transparency and accountability risks reinforcing elite dominance. Reform should focus on reducing rent extraction, modernizing public finance, and restoring democratic oversight through progressive taxation, closing loopholes, and redirecting spending toward inclusive investments in healthcare, education, green infrastructure, and labor market resilience (Acemoglu & Robinson, 2012). Aligning fiscal governance with social equity and productivity is crucial for economic stability and for rebuilding public trust in democratic institutions.

Persistent U.S. budget deficits reflect not just cyclical factors but a structural transformation of the state's role in global capitalism. Fiscal pressures now arise from expanding social commitments, security obligations, and responses to deindustrialization, pandemics, and climate change. Meeting these challenges requires a renewed Keynesianism that integrates global coordination, institutional accountability, and social justice. Keynes anticipated such a synthesis, coupling countercyclical policy with institutions to govern global finance and trade (Skidelsky, 2003). As Tooze (2018) warns, the absence of coordination leads to instability and geopolitical tension.

Ultimately, a globally attuned Keynesianism must recognize that economic resilience and institutional legitimacy are interdependent. The sustainability of government deficits depends not just on markets, but on institutions capable of serving the public interest amid inequality and complexity. Without reform, fiscal expansion risks perpetuating elite capture and fragmentation, deepening instability rather than resolving it.

Saving-Investment Identity and the Double Deficit Problem

The saving-investment identity in national income accounting offers a powerful analytical framework for understanding the structural linkages between fiscal deficits and external imbalances. In its basic form, the identity asserts that a nation's total expenditures must equal its total income. In algebraic terms, for an open economy, the relationship is expressed as:

$$(S - I) + (T - G) = NX,$$

where S is private savings, I is private investment, T is tax revenue, G is government spending, and NX is net exports (exports minus imports). Rearranged, this equation shows that when domestic savings (S) fall short of the sum of private investment (I) and the government budget deficit (G – T), the gap must be filled by foreign capital inflows, which appear as a current account deficit—or, equivalently, a trade deficit (Obstfeld & Rogoff, 1996; Krugman & Obstfeld, 2009).

This relationship underpins the "twin deficits" hypothesis, which posits that persistent fiscal deficits reduce national saving by widening the gap between government expenditures and revenues. When private investment remains strong, insufficient domestic savings necessitate foreign borrowing, generating a current account deficit (Summers, 2004; Blanchard, 2007). Since the 1980s, the United States has exemplified this pattern, as tax cuts, rising military spending, and low household savings have coincided with growing reliance on foreign capital and widening trade imbalances.

Consequently, U.S. fiscal policy decisions—especially sustained budget deficits—have direct implications for the external balance. Large deficits can crowd out private investment if domestic capital markets tighten. Yet, owing to the depth of U.S. financial markets and the dollar's status as a reserve currency, the United States has maintained access to foreign capital without significant upward pressure on interest rates. This has enabled simultaneous public and private financing through external inflows, but at the cost of rising external indebtedness and greater exposure to shifts in global investor sentiment (Obstfeld & Rogoff, 1996).

Ultimately, the interdependence between fiscal policy and the trade balance highlights the structural roots of the U.S. twin deficits. Without measures to boost national savings—through budgetary consolidation, increased private saving, or more balanced investment—the continued dependence on foreign capital will deepen trade imbalances and heighten vulnerability to external shocks.

Global Imbalances, Capital Flows, and the Savings Glut Hypothesis

The persistent U.S. current account deficits since the 1980s have been a focal point in discussions about global financial stability. A significant contributor to these deficits is the phenomenon known as the "global savings glut," a term popularized by then-Federal Reserve Governor Ben Bernanke. In his 2005 speech, Bernanke argued that excess savings from emerging markets, particularly in Asia and oil-exporting countries, were channeled into U.S. financial markets, suppressing long-term interest rates and fueling asset price inflation (Bernanke, 2005).

This influx of foreign capital was facilitated by capital account liberalization, which allowed for greater cross-border financial flows. While such liberalization aimed to optimize global capital allocation, it also led to unintended consequences. The U.S., with its deep and liquid financial markets, became a primary destination for these excess savings, leading to an overvaluation of the dollar and contributing to trade imbalances.

Ricardo Caballero has extensively analyzed the implications of global financial imbalances. He argued that the global financial system faced a persistent shortage of safe assets, prompting the

U.S. financial sector to create increasingly complex financial instruments to satisfy this demand. However, the rapid proliferation of such instruments, often without adequate risk assessment, played a significant role in precipitating the 2008 financial crisis (Caballero, Farhi, & Gourinchas, 2017).

These dynamics underscore the interconnectedness of global savings behavior, capital account policies, and financial market stability. Addressing the challenges posed by global imbalances requires coordinated international efforts to manage capital flows, enhance financial regulation, and promote sustainable economic policies.

Globalization and the Hollowing of Industrial Capacity

Over the past few decades, the U.S. economy has undergone a major structural transformation, primarily driven by the globalization of production. Multinational corporations, seeking cost efficiencies and shareholder value, have increasingly offshored manufacturing to countries with lower labor and regulatory costs. This deindustrialization—or "hollowing out" of domestic productive capacity—has resulted in declining manufacturing employment and weakened supply chains (Rodrik, 2016; Stiglitz, 2012).

The shift of production overseas has contributed to persistent U.S. trade deficits, as domestic consumption relies more on imports. This trend has undermined America's ability to meet internal demand through domestic output and reduced the strategic resilience of key industries (Rodrik, 2016). In many sectors, global competition and cost-cutting have led to reduced long-term capital investment at home, further eroding industrial capabilities.

Capital account liberalization allowed U.S. firms and investors to access global labor markets and production networks, while also facilitating large inflows of foreign capital. These inflows, often from export-driven economies, played a dual role: financing fiscal deficits by sustaining demand for U.S. Treasury securities, and supporting private investment, especially in financial and service sectors—reinforcing the twin-deficit pattern (Piketty, 2014; Milanovic, 2016).

These trends have coincided with widening income inequality and regional economic dislocation. While capital owners and highly skilled workers benefited from globalization, many manufacturing-dependent communities were left behind. The resulting social and economic polarization has had significant consequences for political stability and the legitimacy of economic institutions (Stiglitz, 2012; Milanovic, 2016).

Policy Dilemmas in a Global Supply Chain Economy

Deepening global imbalances—persistent trade deficits, industrial decline, and rising economic insecurity—have led some policymakers to adopt protectionist measures, such as tariffs and other trade barriers, to revive domestic manufacturing. However, in today's interconnected supply chains, such strategies often backfire (Baldwin, 2016a). Modern production, especially in high-tech sectors, depends on components sourced and assembled across multiple countries. Tariffs on imported intermediate goods raise costs for domestic firms, reducing competitiveness and exposing the tension between national industrial policy and global integration (Baldwin, 2016b).

Restricting imports to reduce trade deficits can further weaken the domestic industry if local producers lack the capacity or infrastructure to manufacture complex goods independently. Protectionism often raises consumer prices without boosting employment or productivity, revealing a mismatch between policy goals and the realities shaped by deindustrialization and externalized supply chains (Rodrik, 2011).

Global trade still operates on the principle of comparative advantage, with many developing countries relying on export-led growth to offset weak domestic demand and attract foreign capital and technology (Krugman & Obstfeld, 2009). Disrupting these flows risks economic inefficiency and geopolitical instability, especially as emerging economies depend on access to developed markets.

These dilemmas highlight the challenge for national governments: pursuing economic resilience and inclusive growth while remaining embedded in a global system that rewards openness and specialization. Addressing this requires more than tactical trade policies—it demands a rethinking of industrial strategy, labor market investment, and global economic governance.

Redistribution, Institutionalized Spending, and Fiscal Inertia

Globalization has led to economic disruptions, including deindustrialization, wage stagnation, and labor-market precarity, prompting increased calls for redistributive policies and social protections. As job security declined and inequality grew—especially in places like the U.S.—governments expanded healthcare, unemployment insurance, income support, and education (Stiglitz, 2012). Over time, many of these programs became politically entrenched, forming the institutional backbone of the modern welfare state. Once implemented, such programs are difficult to retract, particularly in democratic systems where social spending garners strong public support (Acemoglu & Robinson, 2012). This political inertia constrains fiscal flexibility, as cutting expenditures can be electorally costly, even when debt levels rise.

This presents a paradox at the core of contemporary fiscal policy: the very process of globalization that diminished domestic manufacturing and contributed to increasing inequality has concurrently heightened the demand for redistributive actions by the state. In responding to the social repercussions of global integration, nations have effectively committed themselves to elevated levels of public expenditure. However, according to the saving-investment identity, persistent fiscal deficits—if not offset by an increase in domestic savings—necessitate current account deficits that are financed through foreign capital inflows. Consequently, redistribution efforts and global trade imbalances are inherently interconnected.

Global Perspective: From National to Systemic Balance

The persistence of U.S. fiscal and trade deficits must be examined within the framework of systemic global interdependence. While individual national economies can demonstrate imbalances—such as deficits or surpluses—the global economy, functioning as a closed system, must maintain the fundamental identity that total global savings equal total global investment. Thus, a national deficit is counterbalanced by a surplus elsewhere, indicating that not all imbalances are inherently destabilizing (Tooze, 2018).

The role of the United States as a last-resort importer has served as a stabilizing factor within the international economic framework. By maintaining consistent trade deficits, the U.S. has generated demand for exports from developing nations, supporting their industrialization and integration into the global market. This asymmetry has established a form of global Keynesianism, whereby U.S. consumption alleviates underconsumption in surplus economies (Baldwin, 2016a). Institutions such as the World Trade Organization (WTO) have helped sustain this structure by advocating for rules-based trade practices and dispute-resolution mechanisms. Nevertheless, the recent resurgence of nationalist economic policies—characterized by reciprocal tariffs and efforts to achieve bilateral trade equilibrium—poses a risk of fragmenting this cooperative system. If all

nations insist on balanced trade with every partner, the global economy could gravitate toward a low-growth equilibrium in which protectionism supplants mutual interdependence (Rodrik, 2011).

Addressing U.S. deficits—both fiscal and current account—thus requires not only domestic reforms but also a reaffirmation of the international institutions and norms that uphold global trade and capital flows. Without these, the pursuit of national fiscal sustainability may compromise global systemic stability.

Geopolitical Risks and the Limits of Globalization

Globalization depends on stable and predictable relationships among trading partners, especially in the flow of critical goods, capital, and technology. As long as these exchanges occur among liberal democracies operating under rules-based systems, the structure remains relatively resilient. But when authoritarian regimes control strategic segments of global supply chains—such as rare earth minerals or energy—they gain powerful levers of geopolitical influence (Baldwin, 2016b; Farrell & Newman, 2019).

Such nations can exploit trade dependencies to exert political pressure, restrict exports, or withhold key inputs, particularly when facing adversarial foreign policy or sanctions. The ability to disrupt production networks or manipulate markets for strategic gain transforms interdependence into a tool of coercion (Blackwill & Harris, 2016). For instance, if the production of essential raw materials, such as rare earths, is controlled by a single country, it can raise concerns about economic dependence and potential risks in sectors related to high-tech defense and communication infrastructure.

Moreover, similar distortions can arise when state power is used to protect industries by imposing tariff barriers on imports, or to protect and reward domestic champions or politically connected firms. David Vogel (1996b) famously described this phenomenon as "political capitalism," in which governments intervene in markets not merely for public welfare or national security, but to secure rents for favored actors or to protect domestic industries. In such cases, economic policies are shaped less by efficiency or competitiveness and more by the political economy of influence, leading to regulatory capture, fiscal misallocation, and disruptions to international trade.

These dynamics suggest that globalization is not purely governed by neutral market mechanisms. Instead, the global economy is increasingly shaped by strategic interests, institutional asymmetries, and divergent political regimes. Consequently, the persistence of U.S. fiscal and trade deficits—the so-called "twin deficits"—cannot be understood solely through macroeconomic identities. They are embedded within a broader geopolitical landscape in which economic interdependence is intertwined with political contingency and strategic uncertainty.

Rethinking Global Economic Strategy: Theoretical Responses

The growing recognition that economic interdependence is inseparable from geopolitics calls for a more nuanced and strategic approach to international economic relations. While Keynesianism has historically played a central role in demand management within national economies, it now faces limitations in addressing the structural, geopolitical, and monetary asymmetries of an interconnected global landscape. In response, several schools of thought and policy frameworks have emerged to confront the vulnerabilities and gaps left by traditional Keynesianism.

One influential perspective is Modern Monetary Theory (MMT), which emphasizes the restoration of monetary sovereignty for countries that issue their own currency (Kelton, 2020;

Wray, 2012). MMT contends that sovereign currency issuers, such as the United States, are not constrained by external borrowing requirements or balanced budget rules in the same way as households or eurozone members. This framework indicates that the United States government is capable of financing public expenditures in U.S. dollars, with its limitations primarily stemming from the availability of real resources and inflation, rather than reliance on foreign debt markets. By reducing reliance on foreign holders of U.S. Treasuries, MMT may help mitigate certain geopolitical vulnerabilities. However, the practical application of MMT in a globalized context is complicated by persistent trade deficits, international capital flows, and the need to balance national objectives with global interdependence. Policymakers must therefore adapt MMT's insights to the realities of a global economy, integrating domestic goals with international constraints related to trade, exchange rates, and capital mobility.

Another enduring challenge is articulated by the Triffin Dilemma, first described by Robert Triffin in the 1960s. The dilemma highlights the paradox that the U.S. must supply global dollar liquidity to sustain international trade, but doing so inevitably leads to rising external liabilities and potential instability (Triffin, 1960; Eichengreen, 2011). Contemporary responses to this dilemma encompass proposals for alternatives to dollar-based reserves, such as regional currencies or global clearing mechanisms. In the near term, efforts to strengthen domestic fiscal capacity and selectively de-dollarize strategic reserves are regarded as prudent measures to mitigate long-term structural imbalances.

A third approach reframes globalization as a vehicle for delivering global public goods, including poverty reduction, climate resilience, and technology diffusion (Sen, 1999; Sachs, 2015). Rather than reverting to national self-sufficiency, proponents such as Sachs advocate for rules-based multilateralism to raise global living standards and address pressing challenges, such as climate change. From this vantage point, international trade is not merely an economic transaction but a developmental and ecological necessity. Defensive measures such as tariff wars risk fragmenting the global economy and impeding the spread of vital green technologies, whereas targeted investments in innovation and international cooperation can help avert both economic stagnation and environmental decline.

Post-Keynesian and structuralist economists offer further insights by emphasizing the importance of institutional power structures and financial hierarchies in shaping macroeconomic outcomes. Scholars such as Lance Taylor (2004), Thomas Palley (1996), and Jan Kregel (1998) argue that factors like structural inequality, financialization, and capital flows can destabilize both national and international systems. Their policy recommendations include capital controls, industrial policy, and income redistribution to support endogenous demand, all while maintaining strategic autonomy within a cooperative international framework.

Finally, the theory of hegemonic stability, as advanced by Charles Kindleberger (1973), underscores the necessity of global leadership in providing public goods such as liquidity, open markets, and crisis management. Historically, the United States has played this role, but its capacity is now challenged by fiscal pressures and geopolitical resistance. Rather than retreating from global engagement, a recalibrated model of leadership is needed—one that leverages monetary and fiscal sovereignty to invest in innovation, strengthen alliances, and maintain open systems. This approach seeks to balance interdependence with protection against coercion, combining strategic autonomy with global responsibility.

Taken together, these theoretical responses advocate for a shift from vulnerability to strategic resilience. Rather than abandoning globalization, the goal is to embed it within renewed institutional frameworks and strategic self-reliance, supported by modern monetary tools, post-

Keynesian analysis, and ecological foresight. If the United States can harness its unique financial position to finance domestic investment and consumption while leading a transition toward equitable, sustainable, and secure global integration, it may reduce geopolitical vulnerabilities and sustain its historical role as a stabilizing force. This vision reflects a 21st-century Keynesianism, one that acknowledges the complexities of interdependence while advancing prosperity and planetary sustainability. As Baldwin (2016b) observes, the future success of globalization depends on technological feasibility, political will, and collective coordination. Only through non-coercive cooperation and mutual recognition of interdependence can globalization remain a force for shared benefit; without such norms, the system risks fragmentation.

22 Functional Finance and Modern Monetary Theory in the Globalized World

Keynes was among the first economists to challenge the classical view of money as merely a "veil" over real economic activity. In *The General Theory of Employment, Interest and Money* (1936), he argued that increasing the money supply could lower interest rates through liquidity preference, thereby stimulating investment and boosting output and employment.

Building on this, Abba Lerner developed the theory of functional finance in the 1940s, asserting that fiscal policy should be judged by its effectiveness in achieving full employment and price stability, not by adherence to balanced budgets ("sound finance"). Since the state can issue currency, Lerner argued, deficits should be limited only by the economy's productive capacity, not by debt levels (Lerner, 1943).

Modern Monetary Theory (MMT) revived and expanded Lerner's ideas, embedding them in a broader macroeconomic framework. Originating in the 1990s with Warren Mosler's *Soft Currency Economics* (1993), MMT holds that a currency-issuing government cannot "run out of money" like a household or firm. Bill Mitchell further developed the theory, emphasizing the Job Guarantee as a core component (Mitchell, Wray, & Watts, 2019; Mitchell & Muysken, 2008). L. Randall Wray's *Understanding Modern Money* (1998) and Stephanie Kelton's *The Deficit Myth* (2020) helped establish MMT as a coherent and policy-relevant school of thought.

However, in today's globalized economy, functional finance and MMT face new constraints. U.S. fiscal deficits, often financed by debt or money creation, are accompanied by persistent trade deficits, enabled by capital inflows from surplus countries (Bernanke, 2005; Summers, 2014). Over time, these trade deficits can weaken the dollar, raise import prices, and create inflationary pressures (Blecker & Setterfield, 2019). Money-financed deficits may further depreciate the exchange rate, intensifying imported inflation. Thus, the applicability of functional finance and MMT is constrained not only by domestic capacity but also by the balance of payments and the dollar's global role (Prasad, 2014).

If excessive deficits weaken the dollar, imports become more expensive, raising domestic prices. While this could encourage import substitution, many U.S. industries depend on imported inputs, so a weaker dollar can also raise production costs and erode competitiveness (Obstfeld & Rogoff, 2009). The impact depends on the industrial structure and reliance on foreign supply chains. Persistent fiscal and trade deficits, financed by foreign capital, tend to keep the dollar stronger than it would otherwise be (Bernanke, 2005). This "strong-dollar trap" makes U.S. exports less competitive and imports cheaper, reinforcing trade deficits and encouraging deindustrialization (Rodrik, 2016). The effect of deficits also depends on their use: financing consumption often increases import dependence, while investment in infrastructure or innovation can expand domestic capacity and reduce reliance on imports (Reinert, 2007).

The U.S. role as issuer of the world's primary reserve currency and principal importer creates strategic dilemmas. U.S. deficits sustain global demand and reinforce the dollar's dominance, granting the U.S. an "exorbitant privilege" to finance its deficits at low cost, while enabling foreign countries to accumulate U.S. assets such as Treasury bonds (Gourinchas, Rey, & Govillot, 2010; Gourinchas & Rey, 2007). This arrangement allows surplus countries to export goods to the U.S. and recycle their earnings by investing in dollar-denominated assets, thereby supporting the global financial system. However, this central position also exposes the U.S. to risks of capital flight and valuation shocks, especially during crises, echoing the Triffin dilemma: the very mechanisms that support dollar dominance can, over time, undermine systemic stability (Triffin, 1960).

Debate continues over the true extent of U.S. fiscal space. MMT proponents argue that as long as global demand for dollar assets persists, the U.S. retains significant fiscal flexibility (Wray, 2012; Mitchell, Wray, & Watts, 2019). Critics counter that reliance on foreign capital increases vulnerability to inflation, deindustrialization, and instability (Summers, 2019; Rogoff, 2019). More nuanced views, such as Blanchard's (2019), suggest that low interest rates allow for greater fiscal expansion, but open-economy constraints remain significant.

Ultimately, the challenge for policymakers is to adapt the insights of functional finance and MMT to a globalized context where the dollar plays a unique role. Effective fiscal and monetary policy must balance domestic full-employment goals with the international realities of trade deficits, exchange rates, and capital flows. This dual perspective highlights that while functional finance and MMT expand domestic policy options, their application requires careful integration with global economic governance.

23. The Evolution and Future of Keynesianism

Since the publication of The General Theory (Keynes, 1936), Keynesianism has evolved from addressing short-run disequilibria and mass unemployment to a pragmatic framework for fiscal and monetary stabilization, emphasizing government's role in countering market failures and sustaining demand. In the postwar era, this approach supported robust growth, full employment, and public investment. However, from the 1970s onward, Keynesianism faced criticism from monetarists and rational expectations theorists, who stressed market equilibrium and the limits to intervention. Despite these challenges, Keynesian principles endured and adapted, especially during crises like the 2008 financial meltdown, which exposed the fragility of deregulated markets and the shortcomings of austerity (Stiglitz, 2012; Blanchard, Dell'Ariccia, & Mauro, 2010).

Today, Keynesianism confronts new structural and geopolitical challenges. Decades of globalization, capital account liberalization, and offshoring have transformed the U.S. into a post-industrial economy reliant on imports, foreign capital, and services (Rodrik, 2011; Baldwin, 2016b). These shifts have weakened the trade balance and intensified domestic inequality, with stagnant wages and economic dislocation in manufacturing regions (Piketty, 2014; Milanovic, 2016).

Political demands for redistribution—through healthcare, income support, and education—have driven a path-dependent expansion of public spending, resulting in entrenched structural deficits (Stiglitz, 2012; Acemoglu & Robinson, 2012). These deficits, combined with external imbalances, have produced a persistent twin-deficit dynamic: fiscal shortfalls alongside current account deficits (Obstfeld & Rogoff, 1996; Summers, 2004).

A renewed Keynesianism must also address rent-seeking and economic concentration. The rise of a technologically empowered elite and dominant financial and platform monopolies has

exacerbated inequality and distorted innovation, with these actors shaping institutions to their advantage and eroding democratic accountability (Vogel, 1996; Stiglitz, 2012). Without structural reforms—such as stronger antitrust enforcement, campaign finance transparency, and inclusive innovation—Keynesian stabilization alone cannot ensure equitable or sustainable growth.

Geopolitical tensions further complicate the landscape. The weaponization of supply chains and resources by authoritarian regimes and the weakening of multilateral institutions undermine the global conditions that once allowed U.S. deficits to stabilize the world economy (Tooze, 2018). As international cooperation falters, the foundations of comparative advantage and efficient global markets become more fragile, demanding a Keynesian response that is both nationally grounded and globally aware.

Looking forward, the future of Keynesianism lies in expanding its core principles. A modern Keynesian framework must go beyond short-run demand management to address institutional inertia, structural inequality, and geopolitical vulnerability. It must balance market dynamism with social cohesion and develop policies that align private incentives with public goods.

24 Conclusion: Toward a Structural Keynesianism in a Globalized Economy

Since the publication of The General Theory, Keynesian economics has evolved from a remedy for cyclical fluctuations to a pragmatic framework for macroeconomic management. Its postwar success in mitigating downturns, fostering growth, and securing employment demonstrated the effectiveness of fiscal and monetary policies in stabilizing capitalism. However, globalization, financial liberalization, and technological change have transformed advanced economies, including the U.S., eroding industrial capacity, increasing inequality, and weakening the link between finance and production. The 2008 financial crisis exposed these systemic imbalances, showing that aggregate demand management alone is insufficient for financial stability and sustainable, equitable growth.

A renewed Keynesianism must move beyond short-term demand management toward structural transformation. The central challenge is not just demand fluctuations, but the concentration of economic and political power—seen in monopolization, rent-seeking, weakened labor bargaining, financial instability, and state capture. Structural Keynesianism advocates an integrated strategy to realign markets with democratic objectives: enforcing antitrust laws, reforming corporate governance, strengthening labor institutions, and directing finance toward productive, socially beneficial investments. By redesigning rules for competition, innovation, and distribution, this framework aims to restore reciprocity between market efficiency and social equity.

In a globalized economy, where production, finance, and policy are interconnected, structural Keynesianism must operate internationally. It requires coordination in antitrust regulation, trade policy, and institutional governance, while promoting technological progress and managing the global division of production. The goal is to harmonize economic vitality with democratic accountability, ensuring growth benefits a broad spectrum of society and that capitalism prioritizes public interests amid ongoing geopolitical risks.

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