The Ideological Embeddedness of Macroeconomic Indices: Capacity Utilization Measurements in the Rise and Fall of American Keynesianism

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Abstract

The article examines how "capacity utilization," a statistic central to Keynesian demand management, was redefined during the Fordist crisis and the collapse of American Keynesianism. The scope is the United States from the 1930s to the 1970s, with attention to the institutional venues where measurement practices were designed and contested, including the Brookings Institution, McGraw–Hill surveys, and the Federal Reserve Board. Through a history of economic statistics, the analysis tracks how survey instruments, benchmarks, and revision protocols translated political choices into technical routines. It documents how alternatives such as Electric Motors Utilization and the Average Workweek of Capital were displaced as survey-based series secured authority. The argument shows a shift from capacity utilization as a policy lever to mobilizing idle capacity under Fordism to its use as an inflation sentinel amid the policy realignments at the dawn of neoliberalism. The contribution is twofold: analytically, it reframes American Keynesianism as government by numbers, highlighting the administrative routines through which indicators were stabilized and repurposed; empirically, it reconstructs the institutional processes that consolidated survey-based capacity-utilization measures while marginalizing competing, engineering-based metrics. The study concludes by underscoring the value of recovering plural measurement practices to support democratic contestation.

Keywords: Capacity utilization; American Keynesianism; Fordism; Macroeconomic Measurement; Ideology.
JEL Codes: E01; E32; B22; N12; P16.

1 Introduction

In 1973, Alan Greenspan declared that capacity utilization was meaningful only when it warned of inflation. A statistic that had anchored Keynesian demand management was re-coded as an inflation sentinel. His stance paralleled Milton Friedman's, who two decades earlier had already argued that fixed exchange rates and capital controls were shackles to market clearance. In doing so, Greenspan's comments fueled the re-codification of an index aimed at identifying the magnitude of idle resources as an inflation sentinel. As Kiely (2016) shows, these were not isolated technical shifts but elements of a long-standing neoliberal political project of de-democratization, this time taking place as an expression of capital's revolt against the full-employment coalition that had emerged throughout the Fordist era and its specific institutional form in the United States: the Keynesian Welfare National State (KWNS). This paper reconstructs that trajectory through the history of capacity utilization, tracing how a measure of slack became an instrument of discipline.

Capacity utilization is a key variable in heterodox economics debates on growth and distribution, either considered explicitly or implicitly (Tavani and Zamparelli, 2018; Blecker and Setterfield, 2019). Two recent overviews map its terrain from different angles: Trezzini and Pignalosa (2024) reconstruct the concept in economic theory from an evolutionary standpoint from earlier orthodox neoclassical accounts, through imperfect competition contributions, towards Keynesian and post-Keynesian theoretical approaches. By doing so, they highlight unresolved disputes over benchmarks, output variability, and competition. On the other hand, Nikiforos (2025) centers his overview around the so-called "utilization controversy," systematizing theoretical justifications and alternative measures (AWW, NEUR) to argue in favor of the demand-led endogenous determination of normal utilization rates. This means that up or downswings in demand that deviate from capacity utilization's normal conditions would not necessarily converge again towards a normal level, but its normal level would self-adjust to new demand conditions. Under these theoretical underpinnings, Nikiforos (2013) cast doubt on the Federal Reserve Board series on capacity utilization, arguing these are stationary by construction, casting doubt on their suitability for long-run analysis. Nikiforos (2016) develops this critique further. Nikiforos (2025) is cited here as given.

In distinction to a theoretical (definition-hunting-centered) or empirical overview (convergence tests-oriented), this contribution focuses on the institutional history of capacity utilization measurements, highlighting the ideological embeddedness of macroeconomic indices. It shows how U.S. private and public institutions—Brookings Institution, McGraw–Hill Company, the Federal Reserve—made one version of "utilization" operational for demand management throughout the Fordist period under American Keynesianism hegemony and re-coded it as an inflation sentinel during its crisis, thereby reshaping the policy dashboard itself, and marking the fall of Keynesianism in the United States.

The contribution is twofold. Theoretically, the paper reframes American Keynesianism through measurement: the state governed not an abstract "economy" but a dashboard whose shifting definitions conditioned the institutional arena in which distributive conflict unfolds, hence, shaping the policy-making space. Empirically, it documents how institutional actors operationalized one definition of utilization, while overlooking alternatives such as the Electric Motors Utilization index and the Average Workweek of Capital. What counted as "normal" utilization was not technically inevitable; it was the outcome of ideologically contingent processes, business information strategies of Monopoly Capital, and the strategic selectivities of the state prone to institutionalize some measurements in neglect of others.

Methodologically, the analysis undertakes a conceptual history of a particular index by locating

definitions and data-generating practices within their historical and institutional context of production and use. It traces how survey categories were codified, how indices were benchmarked and revised, and how these express discursive practices and operational routines. The aim here is not to identify a single "true" concept of utilization but to reconstruct the compromises that endowed one version with institutional authority and to assess the political economy of state power by means of this historical reconstruction. In this manner, the critical juncture when a shifting disciplinary economic mainstream re-interpreted high operating rates of capacity utilization as inflationary pressures, is historically traced, and its political consequences identified: the construction and elevation of an inflation sentinel that would come a central device of de-democratization of American society in the aftermath of the defeat and social disarticulation of an emerging full employment coalition by means of profit-oriented market discipline.

The article develops as follows. First, it unearths the pre-Keynesian endeavors made by the Brookings Institution, which provided the first empirical surveys to provide capacity utilization measures, also introducing the distinction between engineering and economic capacities. Second, it identifies the influences from Alvin Hansen and Paul Samuelson in policymaking and the cultural landscape of the US higher education institutions set up a pedagogy–policy corridor, making sense of how intellectuals of American Keynesianism exercise state power. Third, it develops the post-war debates showcasing the institutionalization of Monopoly Capital interests into policy monitoring and making, particularly by identifying that McGraw-Hill's production of business intelligence became the benchmark for official statistics, later consolidated by the Federal Reserve, resting on survey-based utilization as an adequate instrument to identify capacity utilization measurements. By doing so, it crowded-out alternative measurements, specifically physical intensity ones. Fourth, the article draws on regulation theory, recalling its first contributions by Aglietta ([1979] 2000) to identify the field of operation in which these developments took place, and the structural contradictions that would lead to the early 70s stagflationary crisis, arguing that this critical juncture opened the political space for capacity utilization measurements to be recoded as an inflation sentinel, sealing the shift from demand management to macroeconomic discipline.

In this light, capacity utilization can be portrayed as a thermostat rather than a thermometer. It registered performance, but it also set thresholds for intervention—tuned to mobilize idle resources in the postwar decades and was recalibrated to restrain demand under stagflation. Reconstructing this institutional history recasts American Keynesianism as discretionary government-by-measurement, shows how technical statistics are ideologically embedded and contested in dynamical political economy, and how their re-codification, particularly on capacity utilization, was a central political development for the de-democratization of American society.

2 Pre-Keynesian Endeavors on Capacity Utilization Measurements

The growing influence of Keynesian economic thought heightened concern with the business cycle and, correspondingly, with capacity utilization. Its early measurement in the United States did not originate in government statistics [1] or Keynesian policy shops but in a pragmatic, policy-oriented research program at the Brookings Institution, a private nonprofit founded by Robert S. Brookings.

[1] Early industrial output statistics preceded Brookings and the later institutionalization of capacity utilization measurement: the Federal Reserve began publishing monthly production tables and introduced early industrial production indexes in 1919, but these series did not yet incorporate a notion of productive capacity. See (Board of Governors of the Federal Reserve System, 2017).

In the aftermath of the Great Depression, Brookings pioneered modern empirical practices in measurement, cross-sectoral analysis, and macro-policy reporting, including sectoral estimates of capacity utilization. The program culminated in a four-volume study published in the mid-1930s:

i) *America's Capacity to Produce* (1934),

ii) *America's Capacity to Consume* (1934),

iii) *The Formation of Capital* (1935), and

iv) *Income and Economic Progress* (1935).

The first volume, *America's Capacity to Produce*, was the earliest large-scale empirical attempt to measure capacity utilization in the United States. Working in a pre-Keynesian, American-institutionalist framework and organizing the analysis by economic sectors, Nourse et al. (1934) distinguished three related notions of capacity utilization stated in operational terms:

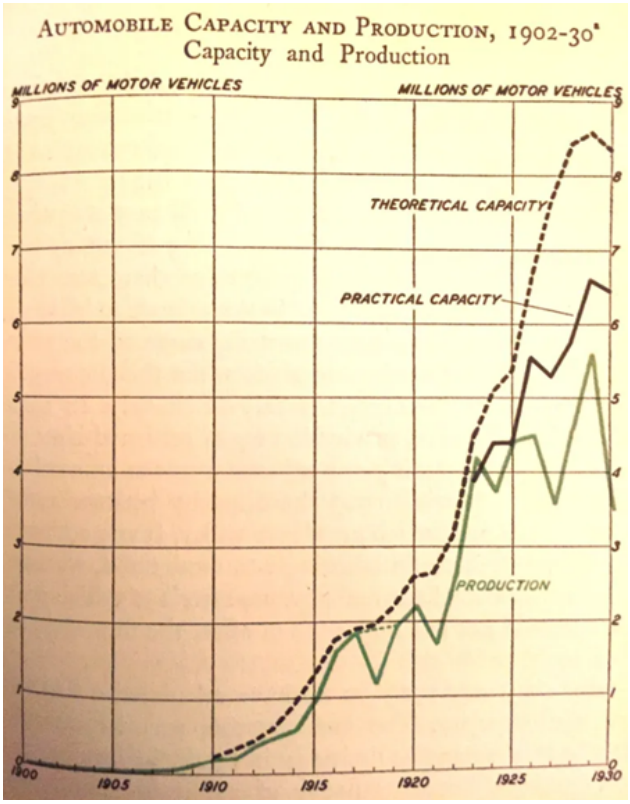
i) theoretical capacity, the engineering upper bound if plant runs continuously at rated speeds under ideal conditions (abstracting from maintenance and equipment turnover);

ii) practical capacity, the maximum sustainable output under prevailing production conditions, given organizational norms, normal shift schedules, and effective working hours, excluding unavoidable interruptions and idle plants; and

iii) capacity utilization, defined as the share of practical capacity actually used, with theoretical capacity serving as a benchmark.

Macro-aggregation was reported as a weighted average of sectoral indices, adjusted by a discretionary factor to reflect intersectoral "coordination failures."

Figure 1: Automobile Capacity and Production, 1902-1930



Source: Nourse et al. (1934, p.229) *"America's Capacity to Produce". The Brookings Institution.*.

Methodologically, the project combined plant-level reports, industry surveys, and administrative series. Missing observations were addressed through documented statistical imputations to harmonize reported capacity and hours, with weights proportional to an establishment's rated capacity. Sectoral coverage extended beyond heavy industry to consumer durables and selected services, which helped explain heterogeneity in depth and data quality across sectors. The macro index was therefore an explicitly constructed statistic rather than a passive average: a transparency the authors highlighted as a virtue even while acknowledging discretion in benchmarks and weights.

Brookings reports showcased that the Depression reflected demand-side contractions, especially weak consumption, rather than physical production limits. These findings foreshadowed Keynes's *General Theory* while eschewing its redistributive policy program. The Institution did not call for redistribution as a plausible policy pathway; instead, it recommended efficiency improvements and pricing reforms aimed at passing productivity gains to consumers via market mechanisms. Early assessments converged on this reading while drawing different boundaries on method and implication. Davis (1935) welcomed the first systematic sectoral study and its macro extrapolation but questioned arbitrary empirical choices and noted uneven depth across industries. Uggè (1936) praised the pragmatic approach, careful statistical treatment (including novel imputations), and wide industrial coverage, stressing the policy value of estimating idle resources. He also underlined the usefulness of standardized cost accounting and survey regularity for future business-cycle analysis. Commons (1937) situated the Brookings work within American institutionalism as incompatible with neoclassical full-employment theorizing. He praised its documentation of resource idleness as

an empirical break with equilibrium orthodoxy. Nevertheless, at the same time, he criticized the program's reliance on price reductions over redistributive or macro-stabilization measures and the absence of an explicit demand-management mechanism to mobilize spare capacity.

As Commons implied, the United States of the 1930s offered fertile ground for a new doctrine of macroeconomic policy. Brookings' economists documented that the 1929 Wall Street crash left the economy with widespread underutilization, including a sharp 1930 production downswing alongside continued growth of productive capacities across sectors (including automobiles, as shown in Figure 2), inaugurating the decade of the Great Depression. That empirical baseline matters for what follows: capacity became legible to policy not because theory demanded it but because measurement infrastructures made economic slack visible, and available to debate for businessmen, economic elites, and politicians, setting the stage for the rise of a new economic paradigm: "American Keynesianism" alongside its institutionalization through different pathways. Here, I shall emphasize two entangled ones: the standardization of industrial surveys aimed to provide aggregate measurements of capacity utilization by the Federal Reserve during the post-war period, and the consolidation of Keynesian economic thinking in the United States through its dominance in the cultural landscape of research, teaching, and learning, fueled by an increasingly developed and robust higher education system.

3 The Rise of Keynesianism with American Characteristics

Alvin Hansen stepped in to fill this gap in American economic reasoning. By the time of the Great Depression, Hansen had already established himself as a leading business-cycle economist, publishing his dissertation, *Cycles of Prosperity and Depression in the United States, Great Britain, and Germany* (1921) (Hansen, 1921). He framed business cycles as endogenous to capitalist economies, assigning a central role to expectations, investment, and technological change. Depressions were not merely external shocks but the result of endogenous dynamics, including mismatches between the production and consumption of capital and consumer goods and the over-investment and lagged self-adjustments they triggered. Observing that the United States' dynamism, once driven by technological progress and territorial expansion, was dying down, he anticipated his later thesis on secular stagnation (Hansen, 1938). As Barber (1987) emphasizes, Hansen's interwar work treated cyclical movements as endogenous adjustments within a capital accumulation process rather than as exogenous weather-like disturbances, a reading that helps explain his receptivity to policy design once a coherent stabilization framework became available after Keynes' *General Theory* was published and widely debated across the world.

In his 1936 essay, "Mr. Keynes on Underemployment Equilibrium," Hansen engaged Keynes's *General Theory* with cautious skepticism while acknowledging the novelty of equilibrium with labor underemployment (Hansen, 1936); Keynes, [1936] 2018. Between 1936 and 1938, he selectively adopted Keynesian tools to confront what he took to be the central empirical fact of the era: the persistence of idle resources, visible as mass unemployment and unused capacity (Barber, 1987). Hicks's IS–LM formalization consolidated his conversion, providing a teachable toolkit that Hansen used to mobilize ideas in the classroom and in print, culminating in his formulation of secular stagnation as a diagnosis of the 1930s downturn (Hicks, 1937). This is also where the measurement link begins to surface. The problem Hansen wanted to solve was not an abstract paradox but a practical one: how to diagnose and manage persistent slack. That required statistics that could register unused capacity and guide countercyclical action. Brookings' sectoral inquiries into capacity and the maturing Federal Reserve index of industrial production furnished early proxies, while

business surveys began to report plant load ratios in a way legible to policymakers (Barber, 1987).

This intellectual shift coincided with a move into policy and institution-building. In 1937, Hansen became the first Lucius N. Littauer Professor of Political Economy at Harvard's Graduate School of Public Administration. He combined Keynesian analysis with the data-minded habits of his early work and pursued an institution-building agenda (Musgrave, 1976). That orientation shaped his pedagogy and federal advising, pushing Keynesian stabilization into mainstream policy. The pathway from Cambridge to Washington is clear: his 1939 testimony before the Temporary National Economic Committee (TNEC) legitimated deficit spending and set up his *Fiscal Policy and Business Cycles* (1941), which (i) systematized countercyclical budgeting, (ii) linked bond finance and interest-rate pegs to real-side stabilization, and (iii) argued for automatic stabilizers and public investment as designed institutions rather than ad hoc fixes (TNEC 1939; Hansen, 1941). Even though Hansen did not work directly on capacity utilization measurement, he became central to the statecraft that governed it. Musgrave's (1976) portrait is telling: a scholar who coupled analytic tools to institutional imagination, translating classroom models into budget rules and administrative routines that required reliable indicators of slack.

Wartime and reconstruction widened this corridor. Advising Marriner Eccles at the Federal Reserve, Hansen supported rate pegs and bond finance (Board of Governors of the Federal Reserve System, 1945). Through the National Resources Planning Board (NRPB) and the Council on Foreign Relations' War and Peace Studies, he helped craft full-employment planning and an external monetary architecture compatible with high domestic employment (Hansen, 1942; Nerozzi, 2009). In parallel, wartime planning normalized the practice of monitoring bottlenecks and capacity limits across industries, habituating agencies to think in terms of potential output and utilization rather than just prices and quantities (Board of Governors of the Federal Reserve System, 1945). Domestically, this arc culminated in the Employment Act of 1946 and the creation of the Council of Economic Advisers (CEA), which made that commitment a continuing federal responsibility (Bailey, 1950). In this way, American Keynesianism crystallized as a macroeconomic policy regime oriented toward demand management and, implicitly, the governance of capacity utilization. Samuelson later recalled Hansen as the leader of the "Keynesian revolt" that made Cambridge, Massachusetts, a hub of American Keynesianism (Samuelson, 1988). In short, a feedback loop formed: pedagogy produced officials fluent in stabilization logics; those officials demanded operational statistics; those statistics, once institutionalized, reinforced the very style of macroeconomic governance that had prompted their creation.

Hansen's most prominent student, Paul Samuelson, developed a discrete-time model that synthesized Keynes's multiplier with Clark's accelerator, in which investment shocks, amplified by the multiplier, feed back through the accelerator to generate cyclical fluctuations (Samuelson, 1939; Clark, 1917); Keynes [1936] 2018. Guided by E. B. Wilson's methodological tutelage, Samuelson moved to MIT and completed the dissertation that became *Foundations of Economic Analysis* (1947) (Samuelson, 1947). *Foundations* supplied the optimization–stability toolkit (including the correspondence principle) and quickly became a touchstone for graduate training (Backhouse, 2014, 2015). By contrast, his *Economics: An Introductory Analysis* (1948) carried the undergraduate classroom, standardizing national-income accounting, the 45-degree Keynesian cross, and the Hicks–Hansen IS–LM reading (Samuelson, 1948; Dimand, 2010; Pearce and Hoover, 1995). Together, *Foundations* and *Economics* provided the architecture and the pedagogical vehicle of what became the neoclassical–Keynesian synthesis, with Samuelson as its principal architect and diffuser (Davidson, 2006). For measurement, this mattered: the 45-degree cross and IS–LM did not just inhabit lecture

halls; they shaped what agencies asked the data to reveal about gaps between actual and potential output, and therefore how "capacity" would be operationalized in practice.

Read within U.S. higher education, *Economics* had a broad cultural reach but was no neutral mirror of the discipline (Pearce and Hoover, 1995; Colander and Landreth, 1996; Colander, 2003). Treating the textbook as an active agent clarifies how the "neoclassical synthesis" label was normalized for mass pedagogy (De Vroey, 2004; Backhouse and Boianovsky, 2016). The same lens opens an internationalization angle: translations and adoptions, including early Japanese editions in the immediate postwar period, exported "American economic reasoning" directly into classrooms and into non U.S. academic cultures (Fourcade, 2009; Giraud, 2018). Concrete examples clarify the point. Early Japanese adoptions adapted the Keynesian toolkit to a reconstruction economy with explicit planning targets, folding utilization into industrial rationalization debates; in Western Europe, the same pedagogy interacted with indicative planning and social partnership institutions, where ministries and research institutes tracked capacity constraints as part of growth programs (Fourcade, 2009). These variants underscore that the "American" synthesis traveled, but it did not land on neutral ground. Work on textbook-market dynamics also tempers the "template" myth: standardization emerged from mutual stabilization across competing texts, iterative revisions, and publisher incentives, not one-way imitation (Colander, 2003; Giraud, 2018). These textbook and publishing dynamics foreshadowed the postwar infrastructure for measurement—from Brookings' capacity studies to the McGraw–Hill utilization series—which the next section examines.

The final piece is institutional. By the late 1940s and 1950s, business press surveys (notably McGraw–Hill) were circulating plant capacity questions at scale, while the Federal Reserve refined the industrial production index as a backbone for cycle dating. Together they formed a usable dashboard for officials trained in the Hansen–Samuelson idiom: utilization rates to gauge slack, production indices to track momentum, and budget rules to respond. That ensemble made capacity utilization a governable object rather than a background condition, closing the loop opened by Hansen's interwar analysis.

4 Postwar Debates on Capacity Utilization Measurements

Later assessments of *America's Capacity to Produce* converge on a familiar verdict: despite its seminal status, the study lacked firm methodological foundations. Burns (1954) noted that Nourse et al. (1934) conflated an economic definition of capacity with an engineering one, rendering policy prescriptions to mobilize idle capacity questionable. Klein and David (1958) echoed this concern, identifying Brookings' estimates as explicitly engineering measures of capacity utilization. They further observed that statistical compilations were not standardized and that any aggregation from sectors to the macro level required an input–output consistent framework if one hoped to capture the intersectoral "coordination failures" that Nourse emphasized without resorting to arbitrary adjustments.

This gap spurred private-sector efforts in the late 1940s that surveyed firms directly. *Fortune* magazine produced occasional capacity estimates based on survival-curve reconstructions derived from tax-based investment data. Contemporary commentators highlighted the lack of transparency and standardization in its methods and the large discrepancies relative to other survey-based measures (Butler, 1958; Phillips, 1963). While *Fortune* helped insert the concept of capacity utilization into business discourse and tied it more closely to an economic rather than purely engineering notion, the resulting series were too fragile for rigorous research.

In the late 1940s, McGraw–Hill pursued a dual trajectory that proved decisive: the diffusion of Keynesian pedagogy and the construction of systematic business surveys. As Samuelson (1999) recalls, the firm was already a major academic publisher positioned to bring *Economics* (1948) to a mass audience, thereby codifying postwar American Keynesianism. At the same time, McGraw–Hill leveraged its expanding business information services to collect empirical data, positioning itself at the intersection of pedagogy and measurement. Its corporate strategy was marked by a wave of acquisitions that consolidated a platform for publishing, information services, and broadcasting. These moves exemplify what Baran and Sweezy (1988) describe as the informational and financial infrastructures characteristic of monopoly capitalism, consolidated with McGraw–Hill Co. acquisition of Standard & Poor's financial services in 1966.

Table 1: McGraw–Hill Acquisitions, 1950–1972

Year	Company acquired	Sector
1950	Gregg Company	Vocational textbooks (education publishing)
1953	Platts Company	Petroleum industry information
1954	Blakiston (from Doubleday)	Medical textbooks
1961	F. W. Dodge Corporation	Construction industry information
1965	California Test Bureau	Educational testing systems
1966	Standard & Poor's	Financial services
1966	Shepard's Citations	Legal publishing
1968	National Radio Institute	Correspondence school and broadcasting training
1970	The Ryerson Press	Educational and trade publishing
1972	Television Stations of Time Life Broadcasting	Broadcasting assets

Source: Author's elaboration based on Munroe (2007).

The acquisitions reveal a deliberate horizontal and vertical expansion. McGraw–Hill extended from textbook publishing into specialized professional niches (medical, legal, vocational), while simultaneously acquiring sectoral information providers in petroleum, construction, and finance. The move into testing, correspondence education, and broadcasting further diversified its reach. Taken together, these steps demonstrate how McGraw–Hill embedded itself across multiple knowledge and information infrastructures, consolidating its position not only as a publisher but also as a central node in business intelligence and educational systems.

Against this backdrop, McGraw–Hill launched its first annual plant-and-equipment survey in 1948. What began as an investment survey soon incorporated direct questions about operating rates, producing the first sustained postwar series on capacity utilization in the United States. By the mid-1950s, questionnaires asked firms to report both their actual operating rates and their "preferred" or desired levels. Typical results showed firms operating in the low-80 percent range while citing a preferred benchmark near 90 percent (Butler, 1958; Phillips, 1963). This dual format

proved influential: it paired a measure of slack with a behavioral target and quickly became a standard reference in investment and policy discussions. For a time, the McGraw–Hill surveys were the most systematic private benchmark available, pre-dating the Federal Reserve's later adoption.

The surveys' influence nevertheless drew methodological critique. Butler (1958) documented the business-cycle sensitivity of reported operating rates and warned that responses reflected managerial expectations rather than standardized definitions. Phillips (1963) criticized the reliance on subjective and heterogeneous capacity concepts and highlighted problems of aggregation and reproducibility. He also underscored weaknesses in the Federal Reserve's subsequent regression approach, which blended industrial production, McGraw–Hill series, and capital-stock estimates, contrasting it with the Wharton "Trend-Through-Peaks" (TTP) interpolation rule. These debates illustrated a broader search, amid the ascent of econometrics, for more formal and analytically grounded methods (Louç a, 2007).

The Wharton Trend-Through-Peaks (TTP) procedure offered one influential response. It constructed a path of productive capacities by interpolating between observed output peaks, defining utilization as the ratio of actual output to the interpolated path of productive capacities anchored in output peaks identified through TTP analysis. By construction, it delivered a conservative benchmark with no long-run trend in utilization, thereby limiting the temptation to read structural change into cyclical noise (Klein and Summers, 1967). Building on this, Klein and David (1958) also proposed an explicitly economic definition: capacity is the output that minimizes average cost, so that utilization is actual output divided by this cost-minimizing level. To scale from sectors to the aggregate without logical inconsistencies, they suggested an input–output consistent calibration in which the Leontief system is expanded up to the point at which sectoral capacity constraints bind, yielding a macro utilization index that respects interindustry linkages.

By the late 1950s, the Federal Reserve had incorporated McGraw–Hill's operating rate benchmarks into its statistical apparatus, extending the official capacity utilization index back to 1948. This move reflected the relative availability and coverage of the McGraw–Hill data compared with fragile alternatives and marked the institutional consolidation of survey benchmarks within the KWNS (Jessop, 2002). The Division of Research and Statistics embedded the series in the Industrial Production program and disseminated results via the G.17 release (Board of Governors of the Federal Reserve System, 2017). Periodic assessments acknowledged the policy relevance of survey-based indicators while also noting their conceptual limitations and the case for model-based complements (U.S. General Accounting Office, 1996).

The conceptual tensions that motivated these reforms did not vanish. Because capacity" in surveys continued to reflect managerial assessments rather than engineering specifications or cost-minimizing constructs, comparability over time remained problematic. Smoothing, benchmarking, and revisions could add mean-reverting tendencies, while shifts in what managers regarded as normal" operations risked embedding sentiment into an index intended to guide stabilization policy. In short, the official measures rested on theoretical priors as much as on directly observed production capabilities.

Alternatives, therefore, sought to anchor utilization in observable indicators of capital services. Foss (1963) developed the Electric Motors Utilization (EMU) index, comparing actual electricity consumption with theoretical consumption implied by installed motor horsepower. EMU captured intensity of use, including multiple shifts that became characteristic of mid-century Fordism, and it typically registered higher utilization than the Federal Reserve index. Taubman and Gottschalk (1971) introduced the Average Workweek of Capital (AWW), defining capital services as a function

of shifts, hours per shift, and the share of the capital stock active in each shift. Quarterly estimates for 1952–1968 revealed turning points and volatility patterns distinct from the FRB measure, often yielding earlier signals of cyclical upswings and a closer match to operational realities on the shop floor. Both approaches emphasized how intensively capital was worked, rather than how much capacity managers reported usage of productive capacities, thereby aligning more closely with Keynesian concerns about cost dynamics and stabilization.

Despite their conceptual clarity and empirical appeal, EMU and AWW failed to secure institutional adoption. Path dependence within the Federal Reserve, where survey benchmarks had already been integrated into the Industrial Production program, implied high switching costs. The post-1970s policy turn toward NAIRU, output-gap frameworks, and production function estimates of potential output favored smooth series compatible with inflation targeting regimes, leaving physical indicators at the margins of economic debate. Even so, the research lineage persisted: Foss (1981) and Foss (1985) and subsequent work on capital services extended the physical indicator tradition, while heterodox analyses integrated utilization into broader narratives of long waves and profitability. From a Marxist perspective, Shaikh (1992) combined his previously developed critical assessment of neoclassical theory (Shaikh, 1974) with empirical series to expose the fragility of survey-grounded and neoclassical capacity concepts. Late Keynesian and early Post-Keynesian attempts to rehabilitate utilization measurement in the post Fordist era include Orr (1989), Beaulieu and Mattey (1998), and more recently Nikiforos (2016), sustaining an alternative tradition rooted in physical indicators in contrast to the institutionalized official survey-based approach.

Taken together, postwar survey infrastructures made capacity legible to policymaking, state planning, and demand management. At the same time, critics continued developing physically anchored indices that better tracked the intensity of capital use. This contest over concepts and methods set the stage for the 1970s re-coding of capacity utilization into an inflation disciplining instrument—what shall be in the next section.

5 The Crisis of Atlantic Fordism and the Fall of American Keynesianism

The Regulation Approach first introduced by Aglietta (2000) has interpreted the post-war period and the consolidation of United States hegemony in the capitalist world system, as a new stage of historical capitalism. Its qualitative difference with UK-led capitalism is identified by a higher scale of social reproduction, where an intensive regime of accumulation of mass production became structurally coupled with mass consumption through an institutional wage-productivity nexus across sectors stabilized growth during the postwar period. Building on this perspective, Vidal (2015) situates "Atlantic Fordism" as a multi-scalar hegemonic bloc that bound together nationally specific class compromises across the North Atlantic geographical sphere into a coherent, U.S.-centered anchored order at the core of the capitalist world system.

Within this framework, Jessop (2002) emphasizes the KWNS as the institutional form of the State in core geographies of the world market, embedding demand-management practices in state projects that sustained full employment, intervened the economy with strong regulation, and enhanced social reproduction through welfare policies. The financing of social reproduction rested on a complementary balance among employers, households, and the public sector: wages covered a substantial share, while female unpaid household labor and the KWNS reinforced this arrangement through a social wage in form of government expenditures as social aid and public services (Moos,

2021). The stability of this configuration also relied on the Bretton Woods system, which Vernengo (2021) interprets as a financial architecture that consolidated U.S. hegemony placing a key role in the Plan Marshall for European reconstruction and financial aid to the development of Asian countries—such as Japan and Taiwan—as a geopolitical strategy to contain communist advance. Taken together, these accounts underscore how Fordism cannot be reduced to a purely national settlement but must be understood as a historically specific accumulation regime supported by multilevel institutional and financial arrangement with Keynesianism as an economic rationality embedded in different modalities and pathways, with historically contingent interpretations, critiques, and adaptations of Keynes original formulations in *General Theory*[2]

Fordism hit its limits as the productivity–wage nexus increasingly delinked. With a shrinking reserve army and intensified wage militancy, profits squeezed (Weisskopf, 1979). U.S.-invited postwar development in Germany and Japan enabled a geopolitically enabled but non-expected catching-up that threatened U.S. market leadership (Lipietz, 1987; Vidal, 2019). While profits squeezed, profitability was sustained with rising capacity utilization (Weisskopf, 1979; Shaikh, 2016). Once stagflation emerged, it exposed the fragility of discretionary demand management and the incapacities of "Keynesianism of American characteristics" to manage demand and provide a fix to the crisis (Shaikh et al., 1999).

Moos (2021) makes clear that a growing gap between the cost of reproducing labor power and employer compensation was temporarily stabilized by the KWNS, which socialized part of the burden through transfers, services, and regulation, a policy-packaged mostly known as "the Great Society." This temporal fix sustained Fordism's class compromise into the early 1970s but could not be reproduced indefinitely within that institutional form, leaving the problem to resurface in the broader profitability and stagflation crisis. In this scenario, ideological struggles over what 'capacity utilization' measured became openly contested. In this sense, the very indicator that had served as a guide for stabilization policies was at the center of an institutional crisis, opening the door for contested interpretations of its discursive practices and operational routines.

Stagflation delegitimated the discretionary toolkit of American Keynesianism and triggered a reflexive re-specification of its theoretical and empirical toolbox. Rather than a clean rupture, mainstream economic reasoning re-coded its own operational routines, privileging model-based series over survey measurements. Anchored in the neoclassical synthesis that had institutionalized Keynesianism in the first place (Samuelson, 1947, 1948), a technocratic reconfiguration advanced rational expectations and credibility-based rules as policy benchmarks (Johnson, 2024). During a debate taking place at the Brookings Institution—the very one which pioneered the measurements of capacity utilization—Lawrence Klein presented econometric estimates of capacity utilization and convincingly argued to the audience that his estimates outperformed Federal Reserve Board (FRB)

[2]Keynes' *General Theory* became a cornerstone for critical interpretations around the world. As has been argued before, Alvin Hansen was critical of Keynes in the first instance but embraced Keynesianism to become its main figure in the United States. The publication of *A Guide to Keynes* in 1953 became the consolidation of his personal trajectory in becoming the pivotal figure of "American Keynesianism." Parallelly, Raúl Prebisch, the Argentinian director of the Economic Commission for Latin America and the Caribbean (ECLAC), would become known as the "Latin American Keynes," while being critical of some aspects of the *General Theory*. According to Caldentey and Vernengo (2016), the qualitative difference of Prebisch relative to Keynes were on dynamics and the cycle from an angle of the capitalist periphery from a global perspective, issues that were peripheral to Keynes' central message. In contrast to Hansen, Prebisch departed from his publication of *Introducción a Keynes* in 1947 to becoming the pivotal figure of a Keynesianism in Latin America and beyond through the global south (Prebisch, 1947). These parallel intellectual developments showcase that "Keynesianism" was an intellectual phenomenon of an epoch, with different interpretations and adaptations through different geographies, with their own and unique characteristics.

survey measures for identifying inflationary pressures (Klein et al., 1973), a view later echoed in FRB documentation adjusting the series under these considerations (Shaikh, 2016).

Greenspan's comments on Klein's exposition at Brookings 45 years after the publication of *America's Capacity to Produce* turned this assessment into a rule of thumb: if a capacity measure did not signal inflationary pressure, it was simply wrong:

> "In principle, 'capacity' has meaning. In the current period of lengthening lags in deliveries, and of all sorts of reported shortages and difficulties in obtaining goods (regardless of price), the economy must be producing at capacity in any meaningful sense. If the numbers do not indicate that the economy is currently at capacity, then I suggest that the numbers are wrong, and that the correct concept of capacity must reflect the situation." (Klein et al., 1973, p. 758)

In practice, "capacity" was being redefined as an output gap relative to long-run market-clearing output, displacing its earlier Keynesian meaning as an index of effective demand relative to productive capacities. While both measurements resemble each other, their theoretical underpinnings rely in qualitatively different theoretical grounds. Hence, sustained high operating rates were accordingly interpreted by a shifting disciplinary economic mainstream, as prone to inflationary pressures rather than as evidence of adequate demand management. That interpretation functioned as an ideological apparatus of the state, to break egalitarian claims in the politics of distributive conflict, reinforcing the technocratic closure of macroeconomic debate.

Vietnam-era military Keynesianism and domestic fiscal expansion functioned as a countertendency to the first signs of economic stagnation in the late 1950s through the 1960s. War spending and Great Society programs such as the Economic Opportunity Act in 1964, and the Fair Housing Act of 1968, fueled effective demand, pumping-up profit-oriented accumulation, pushing the economy towards full employment. Raising labor's income share and shrinking unemployment widened social inclusion beyond white working-class segments: black unemployment reached an historical trough during 1965–1969 at an average of 7.2%; a tight labor market led businesses to expand job training and create more promotion opportunities for women, recognizing them as an underutilized labor resource; poor communities benefited from the military's demand for recruits, with enlistment rates ranking among young cohorts of vulnerable backgrounds. Moreover, an increasingly empowered youth, due to labor shortages, opened job vacancies increasingly filled by inexperienced job seekers (Baker et al., 1996).

The U.S. path towards full employment engendered the emergence of a progressively radical coalition linking workplace and community demands around jobs, welfare, and democratic control of investment. This broad alliance was fueled by elements of a new, multiracial working-class, uniting civil rights proponents, progressive labor allies, feminist organizations, and anti-poverty advocates in a common movement for economic democracy and social emancipation (Dennis, 2022). This political articulation sometimes assumed explicitly radical forms, connecting employment to grassroots mobilization featured by anti-poverty and anti-imperialist agendas (Mohandesi, 2017). For instance, Black radicals in groups like the Black Panther Party implemented community-based programs, and pursued interracial working-class alliance politics (Tyner, 2006). As argued by Dennis (2022), these efforts mobilized a vision of economic democracy rooted in collective needs in detriment of corporate power and their profitability interests.

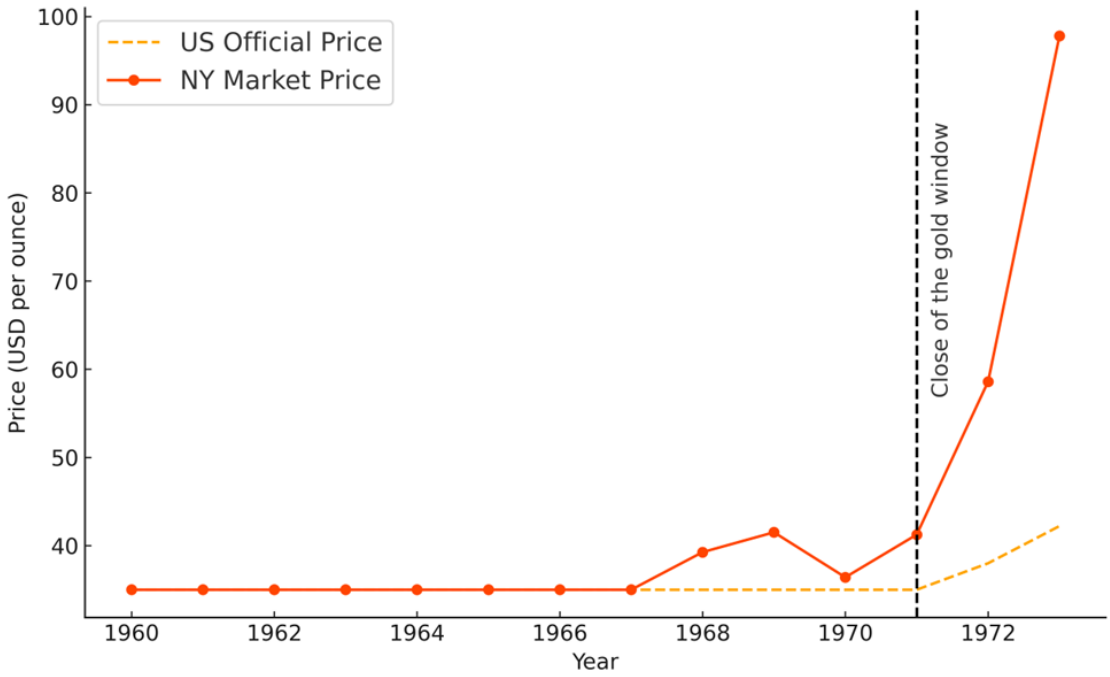
As Kalecki (1943) anticipated, movement toward full employment and redistribution carried political aspects: wage militancy increasingly threatened capital's interests. Yet gains were still

uneven across a racialized order in the aftermath of civil-rights struggles. The legal political architecture compounded this unevenness by routing labor claims through collective bargaining while channeling civil rights enforcement through courts and administrative agencies, a bifurcation that often procedurally pitted the two complementary agendas against each other when met at the institutional arena (Schiller, 2015).

This engendered a critical contradiction: as the base of support for radically progressive politics expanded, institutional channels to deploy its agenda within U.S. liberal institutional order narrowed and met increasingly state repression when civil society grassroots organization intensified. Measurements that once justified expansion were reinterpreted as constraints by the capitalist elite to resolve these contradictions and stabilize the capitalist order. Macroeconomic "credibility" was relocated to external anchors—balance-of-payments defense, exchange-rate management, and reserve protection—subordinating domestic full-employment commitments to external constraints. This shift signaled not only technocratic reordering but also a profound redistribution of power within capital class fractions in favor of financial capital, shifting the balance of power against labor, prioritizing international capital flows over full employment commitments and social rights (Vernengo, 2021).

In this setting, the August 1971 suspension of official gold–dollar convertibility arrived as a contingent break rather than a planned redesign, a critical juncture amid structural contradictions at the core of the postwar order. The "gold window" closure was an improvised response to European and Japanese capital flight to safety, adding mounting pressure on U.S. reserves held by the Fed. Archival evidence shows that the Nixon administration initially explored a managed adjustment combining exchange rate realignment, phased and soft reforms of financial liberalization, and coordinated IMF interventions. Nevertheless, these efforts collapsed under escalating speculative pressures and rising claims on U.S. gold (Zoeller, 2019). The pressures reflected a shifting balance within the capitalist core as export-led catching-up by Germany and Japan met rising U.S. wage incomes, tightening external constraints. Vernengo (2021) correctly argues that their catching up to the U.S. technological frontier was an effect of "U.S. invited development," cultivated for geopolitical interest within Cold War strategizing. Nevertheless, its success fed back as financial fragility and pressures on the U.S. balance of payments. The upshot was an unplanned break resolved through drastic measures favorable to U.S. ruling class interests set in motion with the close of USD convertibility to gold by the Fed (Zoeller, 2019; Vernengo, 2021).

Figure 2: US Official Price of Gold vs NY Market Price, 1960-1973



Source: Author's own elaboration based on Officer and Williamson (2025). "The Price of Gold, 1257–Present." MeasuringWorth .

Figure 2 plots official and New York market gold prices from 1960 to 1973 and shows the widening gap between the official price at 35 dollars per ounce and market quotations, especially after 1968 and into 1972–73. The divergence signaled more than speculative turbulence. By dissolving the legal constraint of convertibility, the breakdown of Bretton Woods created space for financial capital to reassert command over the hegemonic bloc in power, taking control of monetary and macroeconomic policy in the U.S. and, by fiat standard, over the world market (Vernengo, 2021; Alami et al., 2023). Neoliberal economists had long supplied the ideological grammar for such a shift; Friedman (1953) framed fixed-rate coordination as a "straitjacket" on market adjustment. Abandoning convertibility thus functioned as a domestic hinge: it loosened capital controls that had kept funds within national borders and cleared the ground for redefinition of mainstream macro policy. The emergent consensus prioritized price stability and "discipline," and it dismantled full-employment commitments and their social base. It also allowed the dollar to operate as a global reserve without the discipline of gold, reinforcing U.S. hegemony through financialization.

The collapse of American Keynesianism was not merely conjunctural; it was rooted in its intellectual architecture. Samuelson's *Foundations* (Samuelson, 1947) and successive editions of *Economics* (Samuelson, 1948) institutionalized the neoclassical synthesis, tying legitimacy to the performance of discretionary demand management. When stagflation exposed its weak flanks, the same apparatus that had legitimized Keynesianism became its gravedigger. Its technocratic ethos persisted through reconfiguration rather than abandonment: Mahoney and Thelen (2009) define this pattern as institutional conversion, a mode of gradual change where the rules remain formally intact but are strategically redeployed and enacted in new ways to serve new functions or purposes. The shift to credibility and rules could be narrated as theoretical refinement within the

same disciplinary canon (Johnson, 2024). Rational expectations and rules-based credibility displaced demand management while preserving continuity with neoclassical theory. In this reframing, capacity was re-coded as an inflation sentinel; profitability crises and the defeat of an emerging full-employment coalition reinforced a new form of state power: a move from Keynesian government towards neoliberal governance (Jessop, 2002). The academic mainstream presented this as progress, thereby depoliticizing what was essentially a political defeat of organized labor and communities becoming a redistributive and anti-imperialist coalition. In other words, it was the awakening of the national community against the logic of capital (García-Linera, [1994] 2000; Basu, 2022) but ultimately defeated by the redistribution of power within capital itself.

Taken together, these dynamics show how capitalist-class agency, conjunctural constraints, and regime contradictions converged to re-anchor macroeconomic authority within a racialized political economy that had long circumscribed U.S. liberal democracy (Quijano, 2000; Schiller, 2015). In the emergent configuration, credibility and supply-side reform displaced demand management, while capacity utilization was re-coded from a Keynesian slack index into an instrument of labor discipline disguised as an inflation sentinel (Shaikh et al., 1999; Johnson, 2024). What followed was not simply the decline of a policy paradigm but a restructuring that reinscribed old hierarchies under new technocratic forms of de-democratizing American society (Gordon et al., 1982; Kiely, 2016). The dismantling of the KWNS marked the onset of neoliberal governance, unfolding as an unevenly developed and historically contingent process with multiple modalities and pathways in successive waves of neoliberalization unfolding within and beyond U.S. borders (Jessop, 2002; Brenner, 2002; Brenner et al., 2010). The fall of American Keynesianism, in this sense, was a translation rather than an end: domestic racial fracture and international monetary restructuring transformed the U.S. dollar from world money under the Bretton Woods gold standard into fiat money at the core of a neoliberal order that carried forward long-standing hierarchies across the globe towards the era of neoliberalism (Harvey, 2007).

6 Conclusions

This article has unearthed the pre-Keynesian endeavors to measure capacity utilization, revisited the postwar debates on capacity utilization measurements and the interest of Monopoly Capital to produce such statistics as means of business intelligence, and revisited the crisis of Fordism understood as a global accumulation regime and the central role of the reinterpretations made by emerging neoliberal figures in the economics discipline, establishing them as rules of thumb in the demise of the toolbox of American Keynesianism for government by demand management, and the rise of rule-based neoliberal governance.

This article contributes to multiple fields of inquiry. First, by shining a light on the contested and ideologically embedded nature of macroeconomic indices and how their interpretation expresses the discursive practices and operational routines of economic reasoning, it provides a new epistemological and historically situated angle to critically assess the revival of the so-called "utilization controversy" in heterodox macroeconomics. Originally developed in *Political Economy: Studies in the Surplus Approach*, this controversy was triggered in response to Amadeo (1986)'s proposal about the endogeneity of the capacity utilization rate at normal operating conditions, i.e. its self-adjustment to demand conditions, as a means to resolve the unstable results of the Neo-Kaleckian growth model. In response, researchers under the umbrella of Sraffa (1960)'s reconstruction of Classical Political Economy responded to Amadeo's proposal vouching for an exogenous determination of the normal

rate of capacity utilization (Kurz, 1986). In a more nuanced response, Ciccone (1986) vouched for a weakly exogenous determination explained by the slow speed of adjustment to normal rates of operation due to firms' demand-management behavior, costs of adjustment, or the sluggish maturity of new productive capacities. Contemporarily, the controversy has been revisited by Nikiforos, aiming to provide empirical evidence on a previous contribution where an endogenous determination of capacity utilization in normal conditions is justified using micro-foundations (Nikiforos, 2013). Reconstructing the time-series of capital's AWW, Nikiforos (2016) operationalized the debate econometrically, arguing that FRB capacity utilization measures are conditionally stationary by construction at given windows, while showing evidence favorable for an endogenous determination of normal capacity utilization once tested using physical measures. This intervention sparked a debate by a subsequent rebuttal in a critical econometrical replication by Gahn and González (2020) followed by Nikiforos (2020)'s rejoinder, continued by parallel paths without further discussion among the authors.

By reconstructing the history of capacity utilization survey measures, this article suggests that many of the critiques of the institutionalization of macroeconomic indices and their subsequent methodological splices and adjustments should not be taken at face value, as extensively argued by critical inquiries such as the ones made by Shaikh in several interventions (Shaikh, 1992; Shaikh and Moudud, 2004; Shaikh, 2016). In this regard, the interpretation of the contribution to the long-standing debate in heterodox economics on the determination of a normal rate of capacity utilization is presented here as an invitation to build collective reflexive capacities on the use of data, rather than taking a particular trench in the so-called "utilization controversy."

Second, the article highlights the role of macroeconomic indices in the broader political economy of distributive conflict and how the debate on capacity utilization measurement played a key role in a critical juncture of historical capitalism at the core of the world system. This provides a contribution to the emergent field of historical political economy, which in turn is understood as the intersection of political science, economics, and history (Jenkins and Rubin, 2024). By digging into the history of Fordism in the United States and its crisis, the article shows clearly how prominent figures of mainstream macroeconomics throughout the post-Fordist era—marked by the dominance of neoliberal political thinking and the de-democratization of liberal society—were already incubated in the neoclassical synthesis expressed by the seminal works of Samuelson's *Foundations* (Samuelson, 1947), a highly influential account for graduate students and mainstream scholarship in the economics discipline, but more importantly highly influential in the cultural landscape of higher education as expressed in Samuelson's *Economics* (Samuelson, 1948) and its multiple re-editions. As clearly defined by Jenkins and Rubin (2024), the field of historical political economy aims to assess how research on dynamics and events from the past informs us about the present conditions we are living in. In this sense, the overview of the works and relevance in policymaking expressed in the figure of Alvin Hansen provides important insights on the role of intellectuals in society, which mirrors our present, also featured by secular stagnation in the United States and beyond (Cruz and Tavani, 2023).

Finally, the article contributes to the growing call among early-career scholars in International Political Economy and Development Studies to "decolonize economics" (Kvangraven and Kesar, 2023; Dutt et al., 2025). Unmasking macroeconomic indicators as ideological weapons shows how the re-coding of capacity utilization from a Keynesian slack index into an inflation sentinel served to police distributional conflict and narrow the space for democratic claims. This reveals, rather than obscures, the racialized core of U.S. liberal democracy and strengthens arguments

about the de-democratization of American society (Kiely, 2016). Crucially, the analysis refuses to treat Fordism as a closed national model and instead situates it within a global historical configuration of power: Atlantic Fordism as a multi-scalar bloc, Bretton Woods as a geopolitical architecture, and the dollar's post-1971 role as an instrument of worldwide financial discipline. In methodological terms, the paper draws on dependency theory as an open research program rather than a finished doctrine (Kvangraven, 2021), using it to provincialize U.S. macroeconomic narratives and to foreground how external constraints, empire, and world-market hierarchies contour "domestic" policy space. This perspective also recovers subaltern political economies typically erased by mainstream macroeconomics. It registers how full-employment coalitions, civil-rights insurgencies, and community-based projects articulated alternative imaginaries of economic democracy that ran against profitability imperatives, and how technocratic redefinitions of "capacity," "credibility," and "discipline" neutralized those claims by translating them into putatively neutral metrics. In doing so, the article reframes indicators as historically situated infrastructures of governance and knowledge, rather than universal measures of truth.

In summary, the paper reframes capacity utilization not as a neutral thermometer but as a thermostat built into the machinery of state power: a device whose settings were engineered, contested, and ultimately recalibrated to discipline labor, narrow democratic horizons, and reorganize hierarchies of the capitalist world market. Tracing that recoding from Brookings surveys to McGraw–Hill benchmarks, Federal Reserve adoption, and the critical juncture of stagflation turned into rule-making shows how statistical infrastructures translated political choices into technical "facts." Read this way, the fall of American Keynesianism was not a tidy paradigm shift but a struggle over who gets to define and conduct macroeconomic policy across a racialized and imperial order. Recognizing this history underscores the need to recover suppressed indicators and overlooked measurement practices, to build plural and transparent series tied to material production and social reproduction, and to reopen the policy dashboard to democratic contestation. If macro policy is government by numbers, then the numbers must be returned to politics, a necessary step for contemporary societies to face major challenges: de-link from stagnation trajectories, redistribute power, and design institutions capable of sustaining full employment and social rights.

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