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"A Concentration of Private Power without Equal in History": Economic Concentration and the Investigations of the Temporary National Economic Committee (1938–41)

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ABSTRACT

This manuscript presents a detailed summary and reassessment of the 1941 final report of the Temporary National Economic Committee (TNEC). We portion the manuscript into four major parts: background, major themes, assessment of the report, and additional analysis and reflection. In the first section, we cover what compelled the government's investigation and we identify the committee's makeup and mission. We also identify eight historical precedents for the report. In the major themes section, we provide a detailed layout of the TNEC's "monopoly investigation" and its search for what structural impediments may have existed to economic recovery during the 1930s. The themes include competition, concentration, technology, trade barriers, business investment, small business, and fiscal and monetary policy. Part 3 assesses the report by looking at one important early assessment completed in the 1940s. We identify three TNEC concerns, namely the (1) development of oligopoly, (2) savings–investment imbalance, and (3) war mobilization and democracy. Part 3 understands the TNEC report from an institutionalist or stage theory perspective of history and economics. This part ends with a review of conservative thinking at the time of the report and shortly thereafter. The final section looks at the connection between the institutional context of the economy and the economy's economic performance. It is clear that the TNEC understood that systemic economic change had occurred since the Gilded Age, and that the economy had become oligopolized well before the Great Depression. The committee came to believe that the evolution of the economic system into a concentrated corporate one had increased inequality, the effect of which was to boost the volume of savings while retarding the level of investment.

KEYWORDS: Government Report, Economic Concentration, Structural Impediments, Political Economy

1. INTRODUCTION AND BACKGROUND FOR THE TNEC REPORT

"Among us today a concentration of private power without equal in history is growing. The liberty of a democracy is not safe if the people tolerate the growth of private power to a point where it becomes stronger than their democratic state itself […] democracy is not safe if its business system does not provide employment and produce and distribute goods in such a way as to sustain an acceptable standard of living" (Roosevelt 1931). While at first glance this warning resembles contemporary political rhetoric, it comes instead from President Franklin Roosevelt in a message to Congress on April 29, 1938. Issued amid the painful reversals of the Recession of 1937 and the coming of the Second World War, Roosevelt observed that economic concentration had intensified while economic competition declined. He argued that such concentration threatened the very foundations of American democracy. Only the use of concentrated government power, Roosevelt argued, could "cope with such concentration of private power" (305–6).[1]

Congress responded to Roosevelt's message by establishing legislation creating the Temporary National Economic Committee (TNEC) on June 14, 1938. Popularly known in the press as the "Monopoly Committee," TNEC possessed a unique structure, with a broad composition designed to aid the scope and reach of the committee's investigations. Members were drawn from both chambers of Congress, as well from across the executive branch. Senator Joseph C. O'Mahoney (D-WY), a staunch supporter of the New Deal and noted advocate of antitrust legislation, chaired the committee. Other prominent members included Thurman Arnold of the Antitrust Division of the Justice Department, and future Supreme Court Justice William Douglas, then chairman of the Securities and Exchange Commission (Salter 1946, 120–21; Geisst 2000, 162). Prominent economist Alvin Hansen also contributed to TNEC's hearings, an early example of his successful promotion of Keynesian economic theory in the US (Miller 2002, 603–622). TNEC's investigations ran from 1938 to 1941, resulting in a voluminous output: 31 volumes of hearings,

[1] Roosevelt (1931, 305-306). Glick (2019) documents the evolution in antitrust policy in the modern stage 5 capitalist era, a period noted for its "financialization" of corporate governance and legal/court justifications for mergers and firm bigness. We see a parallel to the evolution of early twentieth century capitalism, a period maturing with the stock market crash of 1929 and the ensuing Great Depression of the early 1930s.

41 published monographs, and several summative reports.[2] The committee's final report, published in 1941, provides an important distillation of the TNEC's investigations.[3] Structured into two main divisions, the report examines the impact of monopolies and their prevalence within the American economy. The second section addresses the committee's investigation into whether monopolies represented structural inhibitions restraining economic recovery.

Identifying and remedying the threats of concentration became the task of the TNEC. Charged by Roosevelt with a sweeping investigation of the American economy, TNEC's inquires would, in time, scrutinize a substantial range of industries and corporate practices. Historian Alan Brinkley (1995) characterized TNEC's investigations as "arguably the most thorough, and certainly the most voluminous, study of the structure of the American economy, and of its monopolistic elements […] ever undertaken by any single organization" (126). Previous investigations of economic upheaval are well studied for their public reception and their regulatory and legislative impact. Yet TNEC, despite its expansive scope, has not received this level of attention.

Our study seeks to fill this attention gap in the history of economic investigations. After identifying the key antecedents to the formation of the TNEC, we reveal the investigation's scope by identifying ten themes in the committee's final report and detail what the investigation found based on those themes. Next, we review an important early examination of the TNEC's work, and what this examination had to say about the TNEC's policy impact and public awareness. Our central section identifies and discusses four political-economic contributions arising out of the committee's work. We conclude the paper by examining another element of the TNEC report, namely the connection between institutional context and economic performance. TNEC's findings, we believe, provide insights not just into the economic realities of the Great Depression, but to the present problems of economic concentration. More specifically, the

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[2] U.S. Congress, TNEC, *Investigation of concentration of economic power: Letter from the Chairman, Temporary National Economic Committee, transmitting a preliminary report pursuant to Public Resolution no. 113.* (Washington D.C.: Government Printing Office, 1939). 75th Congress.

[3] U.S. Congress, TNEC, *Investigation of Concentration of Economic Power: Final Report of the Executive Secretary* (Washington D.C.: Government Printing Office, 1941). 75th Congress.

findings offer insights into the historic practices of economic concentration, as well as to illustrate the continuities that shape the American economy in the twenty-first century.[4]

1.1 TNEC in Context: Previous Investigations of Economic Concentration

The TNEC investigations were a part of an existing practice of government investigation into economic concentration, particularly following the disruptions of an economic crisis. We observe eight important historical precedents as context for the committee's investigations. Among these precedents are four government investigations that established a precedent for an investigation of the scope of TNEC.

The first investigations into the business combination movement of the late industrial stage of American capitalism emerged from antitrust efforts during the Progressive Era. The Industrial Revolution produced a proliferation of large corporations dominating national markets. The rapid pace of industrialization, high business investment, and strong competitive pressures provoked efforts by capitalists to find ways to boost profits while stabilizing competition. The trust mechanism, a legal device that allowed industrial owners to pool their stock shares and coordinate voting, represented one such means at quelling competition and locking in profits. The Sherman Antitrust Act of 1890 was a federal effort to limit the effects of combination as a restraint to trade and outlawed monopolization efforts to dominate trade.[5] Ultimately, merger waves around the turn of the twentieth century and in the 1920s created an oligopolized manufacturing sector. Progressives and populist economic reformers, concerned about economic power and the decline of democracy, used investigative committees to probe the impact of monopolistic practices, and to promote the creation of antitrust legislation.[6]

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[4] Perspectives as to why corporate bigness and concentration came about vary between orthodox and heterodox economists, and between historical schools. For example, some scholars differ in thought as to whether market outcomes are natural or constructed, and whether the firm is a passive responder to market signals or an active maker of its economic environment. See Stack (2002).

[5] See Ann Mayhew's (1990, 389–96) argument that the Sherman Act was actually more of a protective measure to small producers living in an age of economic transformation and not a law to stop monopolistic pricing given the three-decade long deflation from 1866 to 1896.

[6] The latter nineteenth century saw efforts by the Grange, the Knights of Labor, and the Populist Party to address the power of capitalists over the American political economy.

The Industrial Commission, a congressional investigation established in 1898 during the McKinley Administration, established the practice of government investigations into economic concentration. Its mission was to examine the effects of business combination resulting from the major merger movement at the end of the nineteenth century. The commission produced a 19-volume study that investigated five major themes: (a) industrial combinations and corporation law; (b) labor legislation, labor in manufacturing, labor disputes, and labor organization; (c) the transportation, agricultural, and mining industries; (d) immigration; and (e) taxation. The commission sought uniform legislation across the states that would harmonize conflicting economic interests.[7] State investigators joined their federal counterparts in probing monopolistic practices. Prompted by allegations of fraud in the insurance industry, in 1905 the Armstrong investigation in New York (led by Charles Evans Hughes) led to stricter insurance industry regulation in the state.[8]

High-profile investigative committees continued to garner significant public attention and legislative impact amid the economic tumult of the early twentieth century. The Pujo Committee—formed in response to the Panic of 1907—held hearings from 1912–13. Their objective was to determine if the financial sector had become a "money monopoly." The committee concluded that a group of financiers had gained control of major corporations and financial markets via their accumulation of vast financial resources and use of interlocking directorates.[9] The committee's findings were influential in the adoption of the federal income tax, the establishment of the Federal Reserve, and the passage of antitrust legislation known as the Clayton Act.[10] Even more influential was the Pecora Commission investigation from 1932–

[7] U.S. Congress, 57th Congress, 1st Session, *Final Report of the Industrial Commission* (Washington D.C., 1902), vol 19.

[8] The investigation found that insurance companies had developed particular financial conflicts of interest and used profits to lobby state government. Investigators recommended that restraints be placed on insurance company business practices and that greater disclosure of company financial statements be made available. See Stelzer (1989) and Moss and Kintgen (2009).

[9] In the capitalist era of the early twentieth century, Veblen ([1978] 1904; [2017] 1923) established the importance of finance, stock price enhancement, and corporate combination as defining characteristics for that period. Combination was to enhance stock valuation. Evolution of the firm created absentee owners interested more in monetary maximization than physical production.

[10] Arsène Pujo, "Report of the Committee Appointed…to Investigate the Concentration of Control of Money and Credit." 62nd Congress, 3rd Session, Report No. 1593. (Washington D.C.: Government Printing Office, 1913).

34. This committee examined the causes and implications of the stock market collapse in 1929. The investigation examined stock exchanges, investment and commercial banking, and investment trusts. The Pecora Commission uncovered various conflicts of interest between banks and their investment banking affiliates, whereby the high-risk operations of investment banks subjected depositors to devastating losses.[11] The commission's findings led to the Glass-Steagall Act of 1933 which separated investment banking from commercial banking, and instituted deposit insurance. Additionally, the 1935 banking act shifted some responsibilities from Federal Reserve Bank presidents to Federal Reserve governors to further centralize policymaking.

The circumstances of TNEC's creation resembled the dynamics shaping these earlier commissions. The economic slowdown that began in the summer of 1928 triggered the stock market crash in the fall of 1929. Economic activity contracted and economic conditions worsened, intensified by three waves of bank failures that drove the economy from recession into depression. While the depression technically ended in June 1933, most Americans continued to endure depression-like economic conditions from 1933 to 1940. Efforts to address these conditions were hampered by adherence to Classical economic principles that restrained innovative policies. Despite the existential conditions of the decade, policymakers were overly concerned about inflation and the effect of government budget deficits. Policy response based on these concerns lead to contractionary monetary and fiscal measures. These measures contributed to another recession in 1937–38, resulting in continued high unemployment and social distress. This failure of orthodox principles led some economists and policymakers to consider novel approaches to resolving this economic crisis.

A further impetus for new perspectives was the darkening geopolitical climate of the 1930s. The necessity for a productive economy and a revival of industry became preeminent concerns following the outbreak of the Second World War. These international challenges shaped TNEC's investigations and outlook by elevating the need for greater private sector output to assist Allied efforts against the Axis. The necessity of war preparedness pivoted the committee's inquiries

[11] U.S. Senate, 72nd Congress, 2nd Session, "Report on the Committee on Banking and Currency," (Washington D.C., 1934).

into how to resuscitate economic output for national defense. However, the demands of wartime mobilization would reenforce the prevalence of the economic concentration and would undermine calls for reform by the TNEC.[12]

2. THE MAJOR THEMES OF THE TNEC INVESTIGATION

To ultimately assess the TNEC investigations, we cover here in some detail the findings and discussions of the committee grouped by themes as we understand it from the committee's 1941 summative report. The TNEC's findings offer a fine-grained examination of the state of the American economy before and during the Great Depression and of the significant prevalence of economic concentration. The committee's observations also possess potent resonance to contemporary policy debates on economic concentration and inequality.

Theme 1: Monopoly versus Competition

The first four chapters of the TNEC report (1941) cover the theme of monopoly versus competition. The report's survey of the American economy identified the power of monopoly throughout the American economy, particularly in several key sectors. Establishing the existence and reach of monopolies proved to be the central task of TNEC. The committee sought to carefully distinguish concentration from monopolization. For example, the committee's examination of the wholesale and retail sector revealed a range of firms from the local merchant to national networks of chain stores. Significant concentration characterized the sector—just a small collection of corporate firms accounted for three-fifths of all sales. The committee, however, found this sector did not "possess anything approaching a monopoly." While practices such as price-fixing and collusion occurred, evidence of competition proved more prevalent than conspiracy. Evidence for this claim was provided in the sizeable number of enterprises, the lack of price rigidity, high efficiency and mortality among enterprises, and low profit margins. The report claimed that "most trading companies, however, earn a meager living for their owners and nothing more" (4–5).

[12] See Mark Wilson (2016).

TNEC identified clearer evidence for true monopolies when markets were dominated by one or two firms that controlled 90 percent or more of the industry supply. Such enterprises had theoretically been the target of antitrust legislation since 1865, and yet the committee identified an array of firms that dominated their respective sectors: ALCOA, AT&T, Pullman Company, Pan-American Airways, and Dow Chemical. The report also notes the existence of notable "duopolies," such as Western Union/Postal Telegraph, United Fruit/Standard Fruit & Steamship, IBM/Remington-Rand, GE/Corning/Westinghouse. TNEC argued that the risk for collusion, market sharing, and conspiracy among these duopolies was particularly high.

The TNEC identified a range of anti-competitive practices employed by firms seeking to build or sustain their hold over an economic sector:

(1) **Price Leadership:** One firm uses its market dominance to dictate prices for the rest of the market. Smaller firms seeking to avoid a price war accordingly follow the market leader. What results is a de facto monopoly and higher prices for consumers. Sectors identified as demonstrating price leadership included steel, cement, gasoline, and crude petroleum.

(2) **Price Agreements:** Price agreements among competitors are plainly prohibited by the Federal Trade Commission, and the report notes various actions taken against collusion in a variety of industrial sectors.

(3) **Delivered Price Systems:** This non-competitive practice uses transportation and freight costs to help divvy up the market.

(4) **Patents:** The report argues that the enforcement of intellectual property rights through the threat of litigation proved an effective method of establishing monopolies. Industrial sectors noteworthy for this practice include radios, telephony, glasses, and other members of the technology firms of the era.

(5) **Competitive Practices of Dominant Firms:** This monopolistic practice is identified as firms using market position to negotiate control over strategic supplies. An example identified in the report involves the three top candy vending machine companies collectively negotiating to purchase the entire supply of chocolate bars from the two largest chocolate producers. Other examples of this practice include forcing suppliers into contracts that forbade purchasing from competitors.

(6) **Market Sharing:** Out and out market sharing, either formally or informally, was identified as a common practice in investment banking, coal mining, meat packing, and tobacco production.

(7) **Intercorporate Relations:** TNEC identified a range of practices providing for communication and collusion between different firms within a single sector. Corporate or individual stock ownership in competing companies, "interlocking directorships" in corporate governance, and formation of interest groups and trade associations all provided opportunities for collusion. The report outlined the regulatory mechanisms to prevent these behaviors but noted that the courts and Congress had weakened such regulations (16–25).

In sum, the TNEC found that the influence of monopolistic firms loomed over the Depression-era American economy. The committee report attributed monopoly's power to specific events of the last two decades: lax regulatory enforcement, the industrial mobilization of World War I, waves of corporate mergers, the large-scale formation of trade associations in the 1920s, and the recent cooperative actions resulting from the National Recovery Administration (25–28). The report specifically rejected the idea that monopoly was the natural terminus of modern capitalism. Monopolization, the report argued, is: "The product of formal agreements and secret understandings; of combinations, intercorporate stockholdings, and interlocking directorates; of the ruthless employment of superior financial resources and bargaining power; of unequal representation before legislatures, courts, and administrative agencies; of the exclusion of competitors from markets, materials, and sources of investment funds; of restrictive contracts and discriminatory prices; of coercion, intimidation, and violence…..In nearly every case in which monopoly persists, it will be found that artificial factors are involved" (28-29).

Theme 2: Concentration in Manufacturing

The report (1941) goes on to explore the prevalence of monopoly in specific economic sectors. The TNEC argued that a trend toward centralization had occurred over the last three decades, and markedly accelerated in some sectors during the worst years of the Depression (32-34). Indeed, some of the efforts to combat the economic crisis had stimulated anti-competitive practices. The committee found monopoly particularly prevalent in the manufacturing and mining sectors, and effective examples of larger patterns of anti-competitive practice.

Centralized corporate organization proved one such effective practice. In 1937, "central office groups" made up only 3.8 percent of total manufacturing businesses, yet employed 51 percent of wage earners and produced 61 percent of the total value of manufactured products, a marked increase from pre-Depression levels. The industries most concentrated by central office control included coal and petroleum production (90 percent of wage earners and nearly 90 percent of total product value under central office control), as well as chemical, paper, iron, steel, and rubber production, and the transportation manufacturing sector. Indeed, all 50 of the 50 largest manufacturing companies were controlled by a central office. While these 50 firms represented less than one tenth of one percent of all firms, they produced 28 percent of the total value of manufactured goods, employed one sixth of all factory wage earners, and paid 20 percent of total wages and generally paid higher wages than smaller firms (38, 40–41, 45–46).

While central office control in manufacturing is a telling metric of economic concentration, the report notes that examining the commodities actually produced by these firms offers a more revealing means of demonstrating monopoly power. Analysis for this finding came from census data on 1,800 manufacturing products. Half of all products demonstrated concentration ratios higher than 75 percent, meaning that four manufacturers accounted for 75 percent of the total production of that product (47–48). According to TNEC, significant risks accompanied such concentration, risks that may have contributed to the calamitous effects of the Great Depression:

> Industrial enterprises produce and distribute products in accordance with an intricate system of price calculations. **Products are the ends, industrial enterprises the means, and prices are the guides by which resources are allocated [emphasis added]**….If concentration in the control of a product frustrates or impedes the free working of the price system, diversions and dislocations result all along the line….The maladjustments arising in part at least out of the obstacles to adjustment toward economic equilibrium imposed by the monopolistic…exercise of concentrated control over the output of products take the form of idle men and idle machines. (46–47)

The political effects of such economic concentration undermined democracy itself. In a telling quote, the report author provides an oblique comparison of monopolists with Soviet central planners: “The business executive who sets a price objective and directs a control mechanism toward the attainment of that goal […] takes upon himself the responsibility for the standard of living of an ever-larger proportion of our people. Much as he generally hates the phrase, he becomes the economic planner of our society” (68).

Methods of price manipulation and coordination abound, from the legitimate (branding and product differentiation, “following the leader”) to the illicit (outright collusion with competitors). Yet seemingly benign practices frequently concealed conspiracy. The persistent efforts to manipulate, coordinate, and otherwise control prices are due in part to fears of the damage caused by price competition among firms. The report notes that most businessmen regard competition as positive in regard to “quality, service, advertising, and the like,” but perceive price competition as fundamentally ruinous (74).

An economic byproduct of price control is price fluctuation. A range of reasonable rationales motivate many businesses to offer a stable product price, but among certain sectors, stability tends toward rigidity over time. Thus, during the early years of the Depression, certain product prices remained fixed while others plummeted with falling demand. The price rigidity of certain products and commodities during downturns often increases the severity of economic hardship, forcing greater liquidation of workers and operations than perhaps would occur under less rigid price structures (77–78). “It is for this reason, more than any other, that inflexible prices tend too often to be high prices, and high prices…not only have a distinct bearing on the length and severity of depressions but they also prevent the efficient use of the Nation's human and material resources during recovery." Inflexible prices also led to serious social divisions by consumers and industries seeking to prop up falling profit margins and incomes, leading to divisive competition at the expense of consumers. "We cannot hope to achieve prosperity by each seeking a larger slice of a pie which is too small. If the pie is large enough we can avoid many quarrels as to the angle at which the knife goes into the pie" (77–80).

Opportunities to manipulate markets and suppress competition became more prevalent through the influence of trade associations and cartels, a topic with enduring economic and political importance. TNEC's final report notes the existence of some 8,000 such associations in 1940, some 2,000 of which were organized as national associations. Such organizations carry out many legitimate activities such as industry research, publication of trade journals, industry-wide standards and ethics establishment, and lobbying (then called "government relations"). Yet, the TNEC argued, "it is impossible to measure the extent to which members of trade associations are actually engaged in cooperating to serve the public or conspiring against it." Recent actions by the Federal Trade Commission and the federal courts suggested substantial evidence of collusion, with the report noting some 200 trade groups implicated as fronts for market collusion over the last 20 years (85–88).

Among the most common form of collusion by trade associations was price fixing. Examples of such practices had been documented in sectors as varied as bread baking, furniture manufacturing, cottonseed crushing, shingle production, and numerous other industries. Market allocation proved common another anti-competitive practice associated with trade associations. Firms agreed to avoid price competition by assigning different regions to competitors. Equally anti-competitive is the use of trade associations in order to collectively determine production levels and manipulate prices (89–92).

Trade associations commonly enforced these anti-competitive arrangements through coercive boycotts to pressure noncompliant firms to either join the association or drive them from the field altogether. Firms outside the industry were often threatened with boycott as well to further deny supplies to recalcitrant firms. Revocation of patents and copyrights by trade associations served as another coercive technique (92–93, 99).

TNEC identified numerous examples of specific trade associations engaging in anti-competitive behavior, but identified as among the most pernicious is the building and construction industry, particularly in urban areas. This collusion included bid rigging, forming price pools, and controlling the market of sub-contractors. Trade unions were also identified as complicit in contributing to anti-competitive practices. To combat the concentration of collusion within this sector, the report noted that the Justice Department had begun an antitrust enforcement campaign specifically targeting this industry (94–96).

The report then goes on to distinguish the activities of trade associations from those identified plainly as cartels. Cartels bring together different competitors for the express purpose of controlling price, supply, production, and market share. The syndicate, identified as the "highest development" of the cartel, engages in multiple anti-competitive behaviors. Certain cartels have a legal mandate, such as Major League Baseball and other professional sports, which often possess antitrust exemptions. But many operate outside of or in defiance of national law. International cartels have been formed to maneuver around such regulations and to establish an even greater means of global market manipulation. The risks of such cartels are clear. As President Roosevelt noted in his statement authorizing the TNEC, "private enterprise is ceasing to be free enterprise and is becoming a cluster of private collectivisms: masking itself as a free enterprise after the American model, it is in fact becoming a concealed cartel system after the European model" (97–98).

The report next examined the role of the National Recovery Administration (NRA) in fostering collusion among cartels and trade associations. The report notes that many NRA codes were often written by the trade associations themselves. The trade associations also tended to be the enforcers of the rules as well: "in three cases out of four, the code authority secretary and the trade association secretary bore the same name and did business at the same address" (99). Many of the NRA codes and regulations "would probably have been outlawed under earlier decisions of the Supreme Court." The Supreme Court effectively nullified the NRA in 1935 in *Schecter*

Poultry Corp. v. U.S.[13] Yet the impact of the NRA's coordination of trade associations continued beyond 1935. "The movement toward 'self-government in industry' has been checked, but not reversed. The logical outcome of this movement…[is] *the complete cartelization of American business"* (emphasis added) (99–101).

Theme 3: Technology and Productivity

Another key theme of the report is the role of technology as a factor in economic concentration, and whether technological innovation adds or detracts to the overall economy. "Technology is relatively neutral; the more dynamic forces lie within the economic system that controls it. If this system is socially wholesome, its employment of technology will be socially advantageous; if it is less than this, its influence will be uneven, rendering benefits here, disadvantages there, as the prevailing cluster of conflicting economic forces may decide." The committee observed that the economic influence of innovation cannot be disconnected from larger business practices (108).

The report provides a brief narrative outlining the historical role of technology as a source of innovation and economic dynamism (105–108). In relation to consumers, the committee found that technology has four functions:

1. **Raising Productivity**: The report notes technology's important role in raising productivity in a selected group of industries from 1909–39. Technological innovation was largely unaffected by downturns or by the Depression, with productivity reaching an all-time high in 1939. "One reasonably concludes that the employment of technology in all types of production has raised the productive efficiency of the American economy to high and unprecedented levels." The report then goes on to explore how civilian industries transitioned to wartime production after 1941, and how productivity gains eased the transition and provided more efficient means of production (109, 111, and 114-115).

[13]*Schechter Poultry Corp. v. United States, 295 U.S. 495*.
https://www.law.cornell.edu/wex/schechter_poultry_corp._v._united_states_(1935)

2. **Raising Production**: Industrial production did not follow a similar trend line compared to productivity. While considerable variation exists across different fields, overall production rose across the economy from 1900 to 1929, and then fell sharply during the deepest part of the Depression (1932–33). In the selected industries examined by the committee, there was a production rebound by 1937, but that production failed to meet 1929 levels. The committee found that “since 1929 production has been unable to realize the promise of existing potential productivity. The reasons for this are undoubtedly to be found in an economic system which is as yet maintaining severe restraints upon this productivity instead of releasing it” (114–18).

3. **Lowering Prices**: Increased productivity caused by technological innovation traditionally leads to lower prices for consumers. However, price rigidity during the Depression prevented consumers from enjoying the fruits of technological innovation. To test this, comparisons were made to two indexes of industries, one an index of “concentrated” firms, another of “unconcentrated” firms. Prices within the concentrated index tended to be well above the unconcentrated index (119–21).

4. **Affecting Employment**: In relation to workers, the report weighs both the risks and the benefits of technological innovation on employment. Risks include: (1) the failure of wages to keep up with increasing productivity, (2) decreases in or the complete elimination of labor due to new replacement technology, and (3) the social and cultural risks of technological innovation. Benefits of technology include (1) greater leisure, (2) the development of new industries to service new technologies, (3) wage increases, and (4) a reduction in dangerous, dirty, or unpleasant labor.

Empirical evidence for these trends is referenced in the TNEC report. An examination of selected industries from 1923–35 demonstrated that wage increases lagged far behind in sectors that enjoyed dramatic output increases and falling unit prices. However, the report noted that the pro-labor legislation of the New Deal reversed those trends, at least in the short term. From 1935–39, those same industries noted a substantial increase in labor earnings, meeting or exceeding output gains (122–25).

The report noted the difficulty of empirically establishing the impact of technology on employment. Yet the committee attributed a significant percentage of Depression-caused job losses to declining production. The TNEC report estimated that slightly half of the job losses during the Depression could be attributed to increased productivity. As the report notes, "the seriousness of a technological displacement in only 7 years requires no elaboration." Those enduring unemployment during the Depression frequently faced an agonizingly lengthy duration of idleness. Studies in Philadelphia found that up to 60 percent of male workers endured between one and two years unemployment, while over 20 percent experienced duration of five years of unemployment or more. Skill displacement by technological innovation also presented a significant risk. The report notes the precipitous decline of various craft trades due to technological automation. Thus, skilled labor is more at risk for elimination than unskilled labor (126–28).

Another drawback stated of technological change was that while it brought greater productivity, it also tended to streamline and simplify many industrial workplaces, making labor tedious, repetitive, and dull. Workers also struggled to keep up with increased speeds of production, causing very real physical and mental strains on workers. The "stretch-out" in the textile industry, a primary cause of the 1934 national textile strikes, is mentioned in this category. Increased risk of industrial accidents and occupational disease was also a concern. While older workers were perceived as particularly vulnerable to these ills and to general obsolescence, the report argued that older workers were as adaptable and productive as their younger counterparts (131–32).

The report identifies a variety of benefits to technological innovation. The reduction of working hours is one such benefit. The shift from the 80-hour to the 40-hour week was definitely a feature of the changing American economy over the course of the twentieth century, although labor activism played an important role in creating this outcome. The report argues as well that new industries spawned by technological innovation have helped to counter job losses. However, new jobs in these fields rarely equaled wages or conditions in older jobs. "A significant compensation to the worker’s loss of employment opportunities is not found and is probably not to be expected from either new industries or the expansion of old ones as such” (133–37).

Technology can further impact economic concentration via patent abuse and industrial research. The report details the use and abuse of patents to establish a concentration of economic power. Patent control allowed for numerous coercive practices against competitors. The biggest firms tended to dominate research and development, and rarely disseminated their findings publicly, making technological innovation a further impetus to market centralization (137–38).

On the whole, the committee’s report perceived technological innovation as positive, yet with many accompanying costs, especially for workers. As the TNEC report notes: “If it should turn out that what have been designated as short-run losses [caused by technological innovation] are merely indications of a long-run trend, consumers and labor, as well as enterprisers and investors, are bound to sustain further losses which cannot be compensated for by mere promises of better possibilities” (142).

Theme 4: Interstate Trade Barriers

The fourth major theme addressed by the report involves US interstate trade barriers as factors contributing to the on-going depression. Such barriers included individual state taxes and punitive regulations and laws targeting out-of-state firms. The issue of interstate trade barriers had received considerable interest from both government and business in recent years, and the report claimed the issue might represent “the greatest single obstacle to economic growth and prosperity” (143–44).

The report claims that, while such barriers had been of importance since the beginning of the twentieth century, the number and variety of these barriers had proliferated with the onset of the Great Depression. The legality of these methods was well established in case law concerning the Interstate Commerce Act and other similar statues. Example of barriers frequently imposed include: (1) licensing and registration fees for automotive sales, (2) regulation of interstate truckers and “itinerant merchants,” (3) misuse of regulations concerning labeling, grading, and standards of weights and measures, and (4) quarantine of agricultural products. At the time, the

TNEC authors noted a lack of data for quantitatively measuring the impact of such trade barriers, and yet, the report noted the social and political damage caused by such barriers was real and observable. An example given is the occurrence of trade wars between states over the sale of dairy products that resulted in a situation where New York dairy farmers were banned from selling their goods in Connecticut (156).

The TNEC lists three possible solutions to trade barriers. One possibility was for interstate compacts to establish fair and standard practices across state lines. A second possibility was for the use of federal appropriations, such as the National Highway fund, to compel states to abandon certain barriers. A third option was for commissions of interstate cooperation to mediate disputes and establish common standards (158–61).

Theme 5: Concentration of Assets, Earnings, Savings, and Investment

The fifth theme of the report concerns the concentration of assets, earnings, savings, and investment in the economy. Household, business, and government savings make up gross savings. Gross saving was said to importantly affect the flow of national income and economic activity, and the increases in gross savings would reduce income because such increases imply less was being spent as a fraction of income. Gross savings determined how much funding was available for investment, and most investment was funded by internal business funds, not the capital markets.

The committee writes that the hoarding of savings disrupts the flow of income which then reduces business sales. Lower income means less spending by others. Economic depression forces a reduction in saving. The business cycle affects the level of hoarding; during cycle expansion higher spending and bank money creation offset savings. Expanded downswing in economic activity would lead to less bank credit creation and a reinforcement of hoarding (206–207).

The report says that business sector savings account for about two-fifths of total savings; further, those corporations are responsible for most business savings. The largest firms were responsible for a large portion of business savings, and in times of depressed economic activity, large firms accounted for an even higher concentration of savings. Dividends were paid out of savings to stockholders and stockholders represented a small fraction of the total population. Individual savings were seen as highly concentrated among the affluent. The institutionalization of savings had occurred along with geographic concentration and the concentration of savings in the largest institutions (207–10).

The government sector had positive gross savings from 1921–29. During the Great Depression, local and state governments had positive savings while the federal government only saved in the recession year of 1937.

The report describes savings moving to investment either directly from individual savers or indirectly through institutions such as life insurance companies (213–17). Capital markets are described, as are both the efficient and inefficient movements of savings. Saving is argued to be a function largely of income not interest rates, and those with the largest incomes earn higher rates on their savings than do low-income people. The committee reports that the tax structure was said not to affect the volume of savings, and the level of savings increased with the concentration of national income.

The results of concentrated savings included a huge reserve of savings in financial institutions, more government securities purchased by banks, and a decline in interest rates (218–21).[14] The concentration of funds had diverted some savings into idle hoards, leading to a fall in interest rates. Interest rate reductions to large firms were greater than to small firms, perhaps distorting and lessening investment.

With respect to investment, the report claims that national income growth is not limited by a shortage of funds, and the importance of investment is that it both creates productive capacity and maintains national income and employment. The TNEC examined who made investment decisions and whether there was a concentration in control over investment (223–42).

[14] A similar situation in modern capitalism has occurred producing what are called jobless recoveries, where very early in expansions output rises but net positive employment growth is delayed by months. Corporate savings in excess of investment needs create stock market booms in prices through stock buybacks.

The committee reported that, in 1929, investment was greater than gross savings, the difference equaling security issues. The report found that companies generally intended to fund investment out of earnings and depreciation. During periods of low economic activity, business contributed funds to capital markets and during boom years, business required more external financing than normal. Managers, not stockholders, played the central part in making investment decisions.[15]

The Pujo Committee in 1912 found that there was substantial investment bank control over industries, but the committee believed evolution had since created an independence of firms from external finance. The internal financing of investment had forced banks to look for new sources of revenue as their commercial loan revenues declined. Banks were now more dependent on consumer loans and government bond holdings, and there was a rise in the importance of bank term loans.

The TNEC writes that the purpose of industrialization had been to increase the power to consume so that consumption would drive business investment. This made the demand for capital goods a *derived demand* from the sale of consumer goods. An interesting observation was that over the course of the 1920s and 1930s, fixed capital investment had fallen while productive capacity had risen. During the 1923–28 period, despite an increase in production and consumption, no strain on production facilities developed. Economic depression led to increased mechanization.

The report says that asset holdings had concentrated and such concentration would imply real impact on controlling investment (242–48). The importance of interlocking directors and the use of the holding company structure suggested a concentration in controlling investment. The construction, trade, and farming industries were less concentrated than manufacturing industries. A small number of executives in companies accounted for investment decisions.

[15] Berle and Means (1932) document the separation of ownership from control whereby important business decisions pass to a controlling executive echelon, and stockholders become passive receivers of dividend payments.

In terms of the causes of investment, the report claims that new investment may not be increased from high profit nor deterred from low profit. New investment is, further, not much affected by uncertainty, and during the uncertainty of war time, investment is actually high. The report says that investment is a function of increasing output and new technologies. Higher inequality raises the need for more investment to prevent a decline in income and it reduces investment directed at replacing existing capital.

This section of the report continues with an examination of the life insurance industry (249–69). Both an SEC monograph on industry investment practices and testimony to the TNEC provided information on the concentration of power in the economy over savings and provided a concrete illustration of whether there was a *savings–investment problem* in the economy. The life insurance industry had companies that were among the largest in the economy and exemplified large-scale corporate management. They provided a large flow of savings that could affect investment and therefore impact the securities markets. Insurers bought farm mortgages and government and corporate bonds and provided policy loans to customers.

The industry had recorded rapid growth in assets since 1910 and there was a concentration of assets in the top five companies. Despite many companies being mutually owned, company management and control was accomplished by a small group of men. The report found that the top echelon was a self-appointed and self-perpetuating group where top management selected the directors, not the policyholders. Policyholders were largely disenfranchised and management was entrenched.

Banks and life insurance company directors were found to interlock, and insurance company directors sat on the boards of manufacturing companies and vice versa. Testimony revealed that director interlocks provided insurers with preferential bank deposits and business dealings. Interlocking facilitated companies acting as a united front on legislation. Close cooperation had allowed for minimum rates to be established and uniform underwriting and policy provisions to be practiced. The report takes note of national cartel-like operations juxtaposed to the existence of state-based regulation. Trade associations were used to promote united action as well.

The TNEC was concerned with whether the concentration of power aggravated the saving–investment problem (258–60). That concern was directed at the life insurance industry. There was a ceaseless flow of savings from policyholders to life insurance companies, and those premium payments were not based on interest rate differentials but on the need to cover events that were potentially devastating financially to policyholders. Companies sometimes had difficulty in finding sufficient outlets for funds, creating a deflationary effect on economic activity. The TNEC found as well that the ownership of insurance policies was unevenly distributed.

Theme 6: Stimulating Investment

The committee's report moves on to theme six, namely the issue of stimulating investment (271–84). The report argues that, if savings is not offset by investment, national income will fall and unemployment will rise. Maintaining full employment required securing sufficient investment outlets for the savings generated by the economy.

The report states that the US is a high-savings economy. Both income distribution and habits of thrift affect the volume of savings. High savings mean that there is a problem in securing investment outlets. Benefits to high savings come from the capacity to fund new projects. The drawback, though, is that the economy is subjected to sharp fluctuations in income and employment. Too few outlets for the available savings can lead to a depressed and stagnant economy.

The TNEC gives historical background to the conditions of the 1930s and addresses the factors that may deter investment (272–73). Three factors are listed that may deter investment, namely risk, the concentration of control over investment decisions and funding, and consumption growth. Effective consumption required actual purchasing power, not merely the desire to buy. The committee saw no automatic mechanism that would keep consumption high enough to support investment.

The TNEC assessed what means existed to promote investment (274–79). One way was to increase sales through consumption. Consumption could be promoted by fiscal policy, and by a price and wage policy that boosted real wages and reduced saving. A second way was to lower interest rates. Investment was not, however, much affected by rates of interest and the rising risk of long-term investments may reduce investment despite low existing rates. A final way to increase investment was by lowering the cost of investment goods. For this to work, new investment outlets had to exist and there had to be sufficiently low barriers for industrial entry. High prices imposed by monopoly-controlled industries would reduce investment. Monopolies were also thought to adopt new technology at a slow rate. Nevertheless, areas such as real estate and small business may be stimulated by lowering interest rates.

The report claims that some kinds of legislation restrain the volume of investment such as the restraints on the interstate flow of goods.

The report sees three areas of public investment as important in overcoming the low private investment problem (279–84). National defense, infrastructure, and environmental spending can offset cycle downturns.[16] Private investment may be stimulated by public investment. The report discusses the need for a capital bank for funding long-term investment. It also addresses the difference between public investments that pays for themselves and those that don't. The latter kinds of investment may still be useful if they improve the taxable capacity of the economy.[17]

The TNEC report next addresses three sectors of the economy, namely housing, small business, and the consumer sector. The committee examined the importance of the housing industry and how to promote private investment therein. The participation of small business in the major business areas of the economy, their economic position and access to capital, and public aides to small business were addressed. Part seven ends by looking at the impact of concentration of power upon the consumer and government assistance to the consumer (285-296).
During the 1920s, residential construction accounted for a substantial portion of aggregate expenditures but in the 1930s this portion dropped significantly. The TNEC believed the

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[16] These investment outlet options are the same areas thought to have revived economic activity following the tech bust in 2000 and following the great financial crisis of 2007–2009.

[17] Keynes (1936) is concerned that private investment may be limited by the need to earn profits in the short run and by investments offering profitable payouts only after a long time has passed. He identifies public utility and public authority investments that mitigate risk and the uncertainty that comes with long-term investments (163).

economics of housing helped to account for the severity of the Great Depression and the slow recovery. The committee noted the importance of housing to economic prosperity, and that more residential investment would be needed going forward as vacancy rates were low and there was much substandard housing.[18] As of the time of the hearings, the committee believed that private enterprise was insufficiently investing in housing and that the market favored construction of higher-end housing for more affluent buyers. Stimulating residential investment would provide an outlet for savings and promote the social good.

The report discusses the pros and cons of reducing building costs and cutting mortgage interest rates. It notes the importance of monopoly-set prices for some construction materials and the set-up of restrictive practices to protect existing channels of distribution. Antitrust law could be used to lessen monopoly influence on costs. The building industry is noted for its backwardness in technology, and adopting new techniques may spur productivity and reduce building costs. Lowering interest rates can spur housing demand and, since 1933, federal intervention has helped to lower rates. Mortgage insurance in particular is noted for reducing the cost of housing capital.

The TNEC reviews public efforts to affect rental housing, one effort occurring during WWI, and the much more extensive efforts during the 1930s. One major effort has been to loan money to local housing authorities to construct low-rent housing and clear slums. Benefits accrued to some communities from improvement in the housing stock. However, disparate racial impacts of slum clearance would ultimately exacerbate the urban housing crisis whose legacies would extend into the decades ahead.[19] Government promotion of housing for low-income Americans would not impede private industry as they cater to higher income people.

Theme 7: Small Business and Consumers

[18] The committee's thinking here is reminiscent of the Keynesian multiplier concept. Housing creates a multiplier effect because investment in housing requires much additional spending in complementary goods connected to housing construction. The additional incomes and employment add to aggregate demand. The housing boom from about 1997 to 2006 helped to offset the negative effects of the tech bust.

[19] On the impacts of slum clearance, see: Hirsch (1983), Sugrue (1996), and Heathcott (2008).

The TNEC moved on to address theme seven: small business and consumers. Their report noted that small businesses face some of the same problems that large businesses face but have their distinct problems as well (297–317). Small businesses represented the majority of firms in the economy, and many marginal and part-time enterprises operate under this label. The report covers the existence and impact of small business in manufacturing, trade, services, construction, and mining. The report makes a comparison of the relative financial and economic position of large and small business. It looks at differences in bankruptcy, earnings, debt, sales, and access to capital. Structural changes in the marketing system and efficiencies of size allowed large business to invade the domain of small business.

Size and credit factors make the corporate form of business more financially viable. The practices of large businesses can lead to the bankruptcy of small business—a phenomenon of which the committee lists 23 different examples. Small business failure may occur even when relative efficiency resides with them. The committee lists many factors having to do with the knowledge, experience, and abilities of proprietors that too lead to small business failure.

Government efforts to maintain competition included antitrust laws, resale price maintenance laws, and regulatory agencies such as the FTC. The committee saw government financial assistance to small business as inadequate, making reference to the Reconstruction Finance Corporation (RFC) and Federal Reserve Bank loans as only slightly reducing problems for small firms. Three possibilities for federal financial assistance included the supplying of equity capital in the form of non-voting preferred stock, extension of long-term credit, and insurance of private loans. The committee emphasized the importance of an economy utilizing its full potential and that such an environment would be good for all businesses.[20] One other proposal described was to establish a research service, fostered by the Commerce Department, where state universities would study and give attention to the specific problems of small businesses.

[20] Legislation in 1934 allowed Federal Reserve Banks to extend medium-term credit to non-bank financial institutions and to non-financial businesses in order to promote employment. By the 1950s, Fed officials argued that the central bank should not affect credit allocation in the economy and some returned to a much earlier argument that the Fed should not compete with private bank lending. See Sablik (2013).

The consumer sector is both the most laissez-faire portion and the largest branch of American industry (319–30). Each consumer is a bundle of economic and social interests. Consumer interests vary across the income spectrum, and these differences are as great as the differences between employers and employees and farmers and urbanites. Consumer interest is a special interest and should not be lumped in with public interest. Consumers determine the success or failure of enterprise.

The committee stated that concentration of economic power imposed constraints on the free choice of consumers. This power took the form of limiting the knowledge of alternatives possible for the consumer. Power may take the form of output control or fixing prices. Businesses may also practice price discrimination and conceal the identity of a product sold under two names or in two markets. Businesses may prevent or discourage the offering of new products or the use of new production methods. The TNEC reports, however, that advancement of the quality and usefulness of products has been rapid.

Government's role is to maintain a competitive economy and to not favor one producer interest over another. Its role is to fact find for the consumer about industry practices. The report notes the importance of consumer product quality standards in providing objective measures of content and utility. Such standards hardly exist, and business has made substantial efforts in sales promotion which has not improved consumer knowledge. Opportunities to choose have expanded but the means to exercise intelligent selection is made more difficult. Consumer standards should be arrived at by group or government action. The preservation of the nation is linked to business success and business success is linked to consumers, and the general welfare is obtained when consumers can evaluate whether or not business action is directed toward their well-being.

Government aid to consumers comes by way of trade and production promotion, and by providing information about products. Unequal bargaining power exists between consumers and business. Consumers, through cooperatives, increase bargaining power and may not need government to even the playing field. Consumer-rating agencies and home economics provide additional information to improve consumer welfare. Nevertheless, the overwhelming majority of consumers lack organization for better bargaining and self-protection. Some forms of aid by government to producers may harm consumers and therefore this gives rise to the need of government to be cognizant of consumers' special problems.

The report states that government action covers three main purposes, namely promotional, protective, and financial (330–40). Education exemplifies the promotional role, controls on prices, wages, and work hours exemplify the protective role, and loans and subsidies exemplify the financial function played by government. The report mentions the variety of government agencies involved in fulfilling government's role in affecting consumer welfare. The most far-reaching form of consumer protection comes by way of government enforcement of the antitrust laws. The report also notes weaknesses in consumer protection, inadequate funding for antitrust efforts, and that no agency in government is directed at the interests of consumers, unlike other economic interest groups. The lack of consumer organization is blamed as to why there is a lack of government oversight directed at these interests.

Theme 8: Fiscal and Monetary Policy

Chapter 16, the final chapter and part of the TNEC report, covers fiscal policy and makes notable statements about monetary policy. The first section of the chapter addresses government spending and the second section addresses taxation. Chapter 16 covers the expansion in the scope of government activities and the policies employed during the Depression, and advocates for a flexible fiscal policy. The end of the chapter addresses the sources of taxation and tax policy (341–404).

Federal expenditure expansion resulted from the depressing effects of economic contraction, and the government used borrowing as a source of finance in order to keep from worsening the deflationary effects the Great Depression. The Depression proved to be a serious economic problem and efforts in 1937 to pull back on stimulus resulted in renewed contraction.[21]

The failure of the economy to achieve a complete recovery has fostered the view among some economists that, since the achievement of a high level of development around 1900, private

[21] See Eggertsson (2011).

savings has exceeded private investment outlets. Insufficient investment opportunities compel government to sustain a high level of public investment and progressive taxation to ensure the full utilization of the economy's resources. Fiscal policy should be flexible in that expenditures increase and taxes decrease during times of business cycle downturns and should do the reverse during times of cycle upturns. While such a policy is a departure from the neutral policy practice of the past, changed conditions necessitate increased federal intervention. Doing so ensures the survival of democracy and free enterprise.[22] The report also describes the contending view, which argues that there is no long-run decline in investment outlets, and that moving back to a balanced budget will revive business confidence, end the Depression, and prevent government bankruptcy. The contending view worries that increased government activity will lead to the increased centralization of government.

The report provides an overview of American economic history, concentrating on how that history identified stages of development (344–47). The evolution from a local agrarian past to an advanced urban industrial economy had fostered an increase in the scope of government activities. Growth in government first provided aides to business and later was directed to improve social conditions. Deficits arose during wars and recessions, and the much-increased government intervention during WWI fostered growth in the sources and amounts of tax revenue. WWI also demonstrated the borrowing potential of the federal government. The report moves on to survey the initial and later responses by government to the depression of the 1930s. Substantially higher business activity and income occurred from 1933 to 1937.

The 1920s' boom was fostered by the development of many new consumer goods industries but by 1930 these investment outlets began to dry up. The lack of investment outlets was seen as a contributing factor in the persistence of depression and the failure to achieve full recovery. The report rebuts the charges that inflation and high taxation will occur with the expansion of government activities. Excess capacity contains inflation pressure and economic growth

[22] The report states that "this departure [in policy] is a necessary adjustment to the profound social, economic, and political changes which have taken place in the last decade […] it is maintained that such a fiscal policy is essential, if we are to save the democratic institutions of this country from destruction and enable private enterprise to flourish […] only alternative is the institution of direct regulation by the government of business enterprise which would be much more restrictive in character" (342).

generates additional income to pay interest obligations. Deficits are an instrument to invest idle savings and provide new low-risk assets for savers to buy. The TNEC also rebuts the charge that public expenditures cause crowding-out during depressed economic times but in fact make up for the slack in private economic activity. Democracy requires economic security as well as freedom, and therefore eliminating unemployment is a matter of national defense.

The economy was recognized to be operating well below capacity (348–56). Existing idle resources should be used to meet current wants, but in the future, if defense needs increase substantially, private civilian needs must be curtailed. Curtailment of civilian demand must be coupled with the expansion of productive capacity. High defense expenditures can produce a moderate inflation in advance of full employment. High inflation undermines morale and threatens social stability. Higher prices limit the rate of increase in production. Fiscal policy needs to create a controlled increase in aggregate spending that grows commensurately with productive capacity. Measures must be taken to limit restraints on production coming from monopolistic practices and undue inventory accumulation. Particular scarcities or bottlenecks can be managed with non-fiscal tools.

The TNEC advocated for a flexible fiscal policy of expenditure, taxation, and borrowing (356–61). Government spending and revenue-raising should vary with the underlying economic and political conditions. Deficit spending is appropriate under conditions of high unemployment, and as unemployment falls, government should resort to raising taxes to shift purchasing power out of private hands to the government in order to avoid inflationary pressures. To have tax flexibility, Congress can authorize an administrative agency to adjust taxes as needed as specified by Congress. The flexible fiscal policy and inflation control is understood in the context of war mobilization, and such a policy should provide for policy flexibility without violating the separation of powers between the legislative and executive branches.

If substantial outlays for defense become necessary, all revenue will not come from taxes, but from borrowing, in order to avoid the disruption of enterprise and the undermining of morale of the population. The TNEC mentions the importance of Keynes' idea for compulsory savings through public purchase of government bonds during wartime as a means to quell inflation. Fiscal policy must be formulated with a view toward the post-defense period.

Monetary policy works to affect inflation and production by changing the structure of interest rates to influence investment and consumer durables spending (361–63). Inflationary conditions can be dealt with through both monetary and fiscal means, though monetary measures work better to slow spending than they do to revive spending. The TNEC sees a flexible fiscal policy as the preferable approach over a monetary policy to smoothly affect economic conditions as the economy expands and the nation strives to meet its defense needs. Even under conditions of full employment, monetary policy may be ineffective at controlling inflation unless the appropriate fiscal measures are in place. The TNEC refers to examples of inflationary experience abroad that occurred because countries failed to pursue appropriate fiscal controls, and in the post-defense period, monetary policy will need to promote investment with low interest rates in order to prevent insufficient investment for the high volume of existing savings.

Given the ongoing problem of creating sufficient capital investment, monetary policy must not result in higher interest rates (363–69). Both the distribution of government bonds to the public and the banks and the reduction of excess reserves are necessary in regards to their effects on borrowing costs. The large reduction in national defense needs will likely result in excess capacity and higher unemployment. Policy will have to reduce constrictive consumption taxes and increase public spending on infrastructure and social programs. Private enterprise will continue to produce the bulk of national income but government spending will represent a larger fraction of national income than in the past. This economic change will not be revolutionary nor is it a move toward socialism.[23] To implement a flexible fiscal policy requires new administrative budget procedures and new ways to classify specific forms of spending. Long-range planning by government agencies will be necessary and capital budgeting for long-term

[23] Keynes (1936) argues for the state to exercise a guiding influence on the propensity to consume and business investment through adjustments in taxes and interest rates. He is skeptical however that rate changes could propel investment enough to crate full employment without a “somewhat comprehensive socialization of investment” (378). He sees the importance of private-public partnerships in promoting demand. The state does not need to own productive capital but to determine the level of aggregate demand. Keynes sees policy changes as being gradually introduced. He agrees with the TNEC that such a policy is necessary to avoid the “destruction of existing economic forms in their entirety and as the condition of the successful functioning of individual initiative” (380).

projects will be useful. Government should borrow to fund the capital budget and use tax revenues to fund the operating budget.

The TNEC addresses the role of taxation in modern government operations and taxation's effect on the economic system (369–404). Taxation is seen as a source of revenue and as a tool of economic regulation. The tax system is impacted by special interests and results from political expediency, and taxes vary in their form and application. The committee reviewed the evolution of taxation and found that the tax system was regressive at lower incomes, proportionate at middle incomes, and progressive at top incomes. The taxes of the affluent roughly equal their savings. State and local taxes impart tax regressivity to the system. Regressive taxes had risen in the 1930s as states attempted to balance budgets detrimentally affected by the Depression.

Attention is brought to the heavier tax burden placed on consumption over savings, and in the modern era where excess savings exist, this special privilege toward savings is no longer warranted. There is not a scarcity of investment capital and, in fact, savings have increased and much is maintained in the form of institutional holdings. Taxes on income and estates act as a moderating force on income inequality. The affluent reduce their tax liabilities by buying tax exempt bonds. In terms of capital gains taxes, low rates are advocated to encourage realization of income and hence tax revenue and to encourage risk taking. Low rates, however, undermined tax progressivity and had existed during the recent great stock market collapse and Depression.

Have profit taxes ended the incentive to invest? The committee writes that taxes compared to profits don't look prohibitively high. As of the mid-1930s, profits represent a significant portion of manufacturers' net worth and borrowing rates are low. Therefore, the tax system had not undermined the incentive to invest. Small business bore the heavier burden of tax increases during the Depression. Large firms yield generally higher and more stable profits. Small corporations paid a higher excess-profits tax rate than large firms. The tax system was also no deterrent to the operations of holding companies. Tax preference for debt financing favored companies that needed to raise funds as opposed to firms that largely funded investment out of retained earnings. The excess-profits tax helped to limit bigness but loopholes existed that limit the tax burden.

3. ASSESSING THE WORK OF THE TNEC

3.1 The Work of David Lynch

An important mid-twentieth century review and assessment of the TNEC investigation was done by David Lynch's *Concentration of Economic Power* (1946). His work, consisting of twelve chapters, begins by looking at the increase in business concentration stemming from the needs of WWI. The issues of small business, the drift toward concentration, and effect of concentration on democracy are all discussed in the introduction.

Chapter 2 covers the creation of TNEC, including the legislative history of the bill that gave rise to the committee. Chapters 3 to 5 cover the committee personnel and procedure, an outline of the hearings, and a review the economic setting confronting the investigations. It is in chapter 5 that Lynch makes note that, as of the late 1930s, the economy had not made full utilization of the economy's productive potential, and that, according to the committee, economic development had eclipsed the era of competition. He makes note here, as he does in his assessment of the TNEC in chapter 12, that there was a remarkable strength of the doctrine of competition among the members of the committee. Chapter 6 addresses concentration. The instrument of concentration in the US economy is the corporation and examples of industry concentration are provided with much attention given to the insurance industry.

Chapters 7 and 8 address political pressure groups, business law, and business practices. Chapters 9 and 10 look at the issue of creating full employment and the various committee-identified corporate abuses. Lynch then examines the recommendations coming out of the investigations, and closes with a substantial chapter of his appraisal of the efforts of the TNEC.

In Lynch's assessment, the TNEC report made little impact on policy and public thought. Word War II interrupted attention to the committee's efforts at understanding the structure of the economy. Even without war, the TNEC's influence was likely limited, Lynch believes. By failing to concentrate on any one subject, public opinion would not have been affected, and the testimony coming out of the hearings had little connection to some of the committee's recommendations. But the committee's mandate led it to take one of the most extensive investigations of American economic life. Its major contribution was that it promoted discussion about contemporary problems and solutions, and became the basis for many articles and media discussion. More tangible accomplishments concerned some modification in monopolistic business practices and pricing policies, and the committee's findings did bring up to date what had been known about the practices of key industries in the economy. A more vigorous antitrust effort was supported by the committee's findings. Despite this, Lynch sees little new knowledge coming from the investigation or in the final report. Nevertheless, Lynch does see the TNEC as being in the service of public enlightenment.

Lynch makes an interesting point about the TNEC's efforts to address its essential objective, namely to assess the concentration of power. He writes,

> It is remarkable in a study as extensive as was that undertaken by the TNEC into the concentration of economic power that so few of the important questions relating to concentration were analytically or systematically explored. The hearings began and ended with the assumption that concentration is becoming increasingly characteristic of the economy, and it was continually implied that such a trend is undesirable. Yet nowhere was the matter the subject of careful scrutiny. Just what concentration is or how it is measured was left unanswered. The extent to which concentration is characteristic of the economy was left to conjecture (360).

Lynch goes on to write that the committee did not explore the efficiency or desirability of concentration, nor did the committee say much about the socioeconomic effects of concentration. Moreover, the committee said little about the effect of concentration on income distribution and stratification, on business investment, and on the country's democratic institutions (361).[24]

[24] For Lynch's full appraisal, see all of chapter 12.

In what follows, we provide a fresh look at the TNEC's final report to ascertain the committee's major concerns and findings and review what the conservative thought of the day had to say about the TNEC and its implications for the economy.[25]

3.2 TNEC Concern: The Development of Oligopoly

The first major concern involved the concentration of corporate ownership and monopoly that resulted from a long period of industrialization. In particular, FDR's letter to Congress on the possible negative effects of monopoly in April 1938 was in fact a key driving force in establishing the TNEC (see the NYT 4/30/38, 1–2).[26] The TNEC expressed concern about industry collusion and the connection of oligopoly with a perceived savings–investment imbalance issue. On the one hand, an increase in industry concentration was thought to raise the volume of available savings in the form of retained profits. On the other hand, oligopoly was thought to reduce outlets for investment because firms did not want to take business away from existing facilities. Concentration was thought to drive up war material costs (NYT 1/13/41 13). Industry offered a view that government efforts to control the economy could disrupt production and undercut initiative; profit taxes would be enough to absorb high war profits (NYT 3/22/41, 8). The committee also feared that vital military information may pass to foreign companies doing business with American firms (NYT 2/13/41, 13). The TNEC appeared to recognize that the economy had long passed the era of resource scarcity. The policy problem had become one of too little total spending, not too little productive capacity.

The TNEC report adopts a stage theory of capitalist development. Stage theory is best expressed by Keynes (1936, 149–53 and 158–61), Whalen (2001), Wray (2009), Van Lear (2014), Van Lear and Sisk (2010), and Commons (1934). The stage theory paradigm views economies moving in an evolutionary way such as from an industrial stage to the stage of finance capitalism

[25] The government studies reviewed in our paper are significant for three reasons: (1) through testimony and data collection, they document that business concentration had occurred; (2) there are macroeconomic and political consequences from private property concentration; and (3) they demonstrate concern at the highest levels of politics and law for abuses of corporate power and for the expected and known effects of nineteenth century industrialization and early-twentieth century merger activity.

[26] The *New York Times* reported on family stockholdings (10/16/40 p23), and federal licensing to supplement anti-trust law and macroeconomic problems connected to monopoly (4/23/38 p1).

beginning with the great horizontal merger wave of 1896–1903. Along with other institutional developments, a second wave of vertical mergers occured during the 1920s. Investment banks played an important role in pulling together many smaller companies through horizontal and vertical mergers creating a largely oligopolistic corporate economic system by the end of the 1920s. The economy moved from a highly price-competitive, investment-led system to a much more concentrated, finance-dominated, and more speculative system. Finance capitalism importantly contributed to the Depression, and this was the system that contextualized the TNEC report.

The TNEC view on the economic effect of concentration was preceded by Hobson (1902) and repeated and elaborated on by mid-twentieth-century economists. For Hobson, capitalism suffered a dilemma—a product of economic growth. Growth produced a rising capacity to produce goods but also a rising level of inequality. Growth put too much purchasing power in the hands of the wealthy and too little ability to consume in the hands of the working class. The rich could not consume anywhere near all of their income while the rest of the population had too little purchasing power to buy all the goods produced. The economy created excess capacity and also excess savings. This thesis was reinvigorated in the mid-twentieth century by Baran and Sweezy (1966) and Steindl ([1976] 1952). The former writers argued that concentration led to stagnation tendencies that were only overcome in periods of abnormally high demand stimulus. Steindl thought that mature economies were indeed oligopolistic, weakening the incentive to invest. Importantly, investment was a function of utilization, and low demand created low utilization, which in turn undermined investment.

The saving–investment model displayed in Figure 1 below is applicable to the oligopoly concern. The TNEC worried that the development of business concentration meant an increased proclivity within the economy to generate savings while simultaneously reducing outlets for those savings. The effect of this would be to rotate the saving function counter-clockwise and the investment function clockwise, depressing the economy’s income level to a lower equilibrium point, or to a lower growth rate.

The Clayton Act was viewed as a failure in curbing the creation of large firms (NYT 1/3/41, 34).[27] Thurman Arnold, the assistant attorney general in the late 1930s, in charge of antitrust enforcement, offered the idea of employing industry-by-industry regulation instead of the one-standard policy in existence (NYT 1/2/40, L36). Under the law of the time, industry was subject to a full competitive requirement or no competitive requirement as in public utilities. Business would go to the Department of Commerce for advice on how antitrust law would be applied to their industry (NYT 3/12/39, 2), and perhaps there would be a joint assessment of antitrust questions by government, business, labor, and consumers (NYT 3/12/39 p2). Another idea would be to have a special court to handle antitrust matters to speed up litigation (NYT 12/15/40, p79). Merger and concentration concerns resurfaced in the 1950s (NYT 6/26/1952, p45; NYT 1/27/1955, p21).[28]

The issue of business concentration has again arisen in our current era. A number of studies have documented increased concentration since the mid-twentieth century. This research includes the works of Brennan (2016), Diez and Duval (2019), and a Foster, McChesney, and Jonna (2011) that reinforce each other concerning increased corporate concentration. Business concentration, higher mark-ups, and shrinkage in the purchasing power of the middle class, all increase inequality, and reduce the growth in demand for goods and therefore employment.

The 2016 Economic Report of the President discusses the increased importance of rents paid to a small group of people, causing inequality to rise sharply. A decline in competition allows rents to be paid and creates an increase in “unproductive inequality” (22–23). The Council of Economic Advisors write that “growing rents, the increasingly unequal division of rents between workers and firms, and rent-seeking behavior are often highly problematic and appear to have become more so in recent decades” (39). The report documents the rise in profits relative to national

[27] Anti-trust was part of Wilson’s New Freedom plan. The Federal Trade Commission Act was passed to ban "unfair methods of competition" and "unfair or deceptive acts or practices." The Clayton Act addressed specific practices that the Sherman Act did not clearly prohibit, such as mergers and interlocking directorates. Section 7 of the Clayton Act prohibited mergers and acquisitions where the effect "may be substantially to lessen competition, or to tend to create a monopoly" (FTC website).

[28] For comprehensive reviews of antitrust policy, see Glick (2019) and Klobuchar (2021).

income and the much higher ascent of invested capital returns for larger companies over smaller firms. Many industrial sectors show increased market concentration (40–42).

A recent study from (Bakir, Hays, and Knoedler 2021) supports this view. One finding goes to the effect of concentration, namely that the rate of investment drops off after the 1960s and drops by about half in the post-1980 period compared to the 1958–80 period. Less concentrated sectors have higher rates of investment than more concentrated sectors. Bakir, Hays, and Knoedler argue that the combined effect of rising business concentration and lax antitrust enforcement are partially responsible for slower investment growth in manufacturing and for the decline in the labor share of income. The authors claim the modern laissez-faire predilection of jurisprudence toward corporate concentration is a "strong contributor to rising inequality in the United States" over recent decades.[29]

3.3 TNEC Concern: The Savings–Investment Link

Our reading of the TNEC report indicates three major issues for committee members concerning saving and investment. The *first issue* concerned the reason that the level of excess capacity and unemployment remained high into the late 1930s despite an economic recovery that began in June of 1933. An economic setback occurred from mid-1937 to mid-1938 but growth had resumed by the end of 1938.[30] The TNEC's *second issue* was that savings capital had become concentrated, and along with large interlocking institutions, created a high volume of savings that exceeded the ability of business investment to fully deploy. If investment could not be maintained at sufficient rates of growth, savings would exceed investment and economic activity would shrink. The committee's *third issue* was that investment may be curtailed from both the existence of monopolies and the prevalence of risk, and that low interest rates alone would have

[29] The modern approach to anti-trust raises the bar of what is to be considered "unreasonable" restraints of trade, does not consider income distribution effects of consolidation, and stresses the importance of business in creating consumer welfare and in creating wealth maximization. See Klobuchar (2021, 130–38).

[30] See the article by Eggertsson (2011) on what is known as the Roosevelt recession. Temin (2000) writes that "Unemployment rose sharply in 1938. The recession delayed the return of full employment for several years. The record of the 1930s looks so dismal partly because there was a reprise of the Depression in the late 1930s. This echo may show how little had been learned in the Depression; Keynes' General Theory was only published in 1936 and not accepted widely for many years thereafter. Or it may show that full recovery was not the primary aim of economic policy. The record of the 1930s clearly shows the presence of multiple goals, from maintaining the external value of the dollar to distributing the fruits of recovery more widely" (328).

little positive effect on investment to employ the available savings.[31] With assistance from the SEC, and encouragement of some industrialists, the TNEC sought to investigate why the US economic system had "idle men and money" (see NYT 5/21/39 pE2; 1/2/40 pL36).

Similarly, the committee wondered why there was low business activity while the banks had record amounts of credit available. Moreover, large corporations had become largely self-sufficient in financing. Ample internal fund generation made large firms independent from credit restraints and costs imposed from lenders.[32]

The New Dealers believed the core of the economy's problem was located in the mechanics of how the system functioned. The SEC saw recovery coming only from full use of the economy's savings. The Keynesian understanding of government pump-priming of private demand and stimulating the capital goods industries was discussed by the TNEC (NYT 5/21/39 pE2). Economic Advisor to the Department of Agriculture, Mordecai Ezekiel, presented a five-point plan to restructure the economy in order to provide for full employment. Central to his argument was that savings increased faster than the ability of investment to offset the idle money with sufficient demand (NYT 2/25/41 p16). Ezekiel proposed use of government's fiscal tools to affect demand and claimed that creating more income equality would lessen the available savings that needed to be injected back into the economy.

Keynes (1936) addressed this very problem in the *General Theory*. He wrote,

> This analysis supplies us with an explanation of the paradox of poverty in the midst of plenty. For the mere existence of an insufficiency of effective demand may, and often will, bring the increase of employment to a standstill before a level of full employment has been reached. The insufficiency of effective demand will inhibit the process of production […] Moreover the richer the community, the wider will tend to be the gap

[31] The theory of secular stagnation, first enunciated by Hansen in 1939, has been resurrected to explain slowing growth rates and delayed employment growth early in economic recoveries during the current capitalist stage. See Van Lear (2014) and Summers (2015). Hansen should be regarded as both an institutionalist and a Neoclassical Keynesian economist.

[32] This was a key observation made by Galbraith (1967) concerning the structure of mid-20th century capitalism.

> between its actual and its potential production; and therefore the more obvious and outrageous the defects of the economic system. For a poor community will be prone to consume by far the greater part of its output, so that a very modest measure of investment will be sufficient to provide full employment; whereas a wealthy community will have to discover much ampler opportunities for investment if the saving propensities of its wealthier members are to be compatible with the employment of its poorer members. If in a potentially wealthy community the inducement to invest is weak, then, in spite of its potential wealth, the working of the principle of effective demand will compel it to reduce its actual output, until, in spite of its potential wealth, it has become so poor that its surplus over its consumption is sufficiently diminished to correspond to the weakness of the inducement to invest. But worse still. Not only is the marginal propensity to consume weaker in a wealthy community, but, owing to its accumulation of capital being already larger, the opportunities for further investment are less attractive unless the rate of interest falls at a sufficiently rapid rate…. (30–31)

The TNEC considered proposals to make taxes flexible, where policymakers would raise rates during booms and cut rates during business downturns. Economic expansions were thought to lead to more income concentration and therefore concentration was connected to the business cycle. Government should raise taxes during booms to reduce cyclical intensity. And different rates of taxation could be applied to different kinds of income; such a policy would take into account the importance of income concentration and income tax hikes would depress business activity less (NYT 10/26/40 p7; 12/6/40 p14).

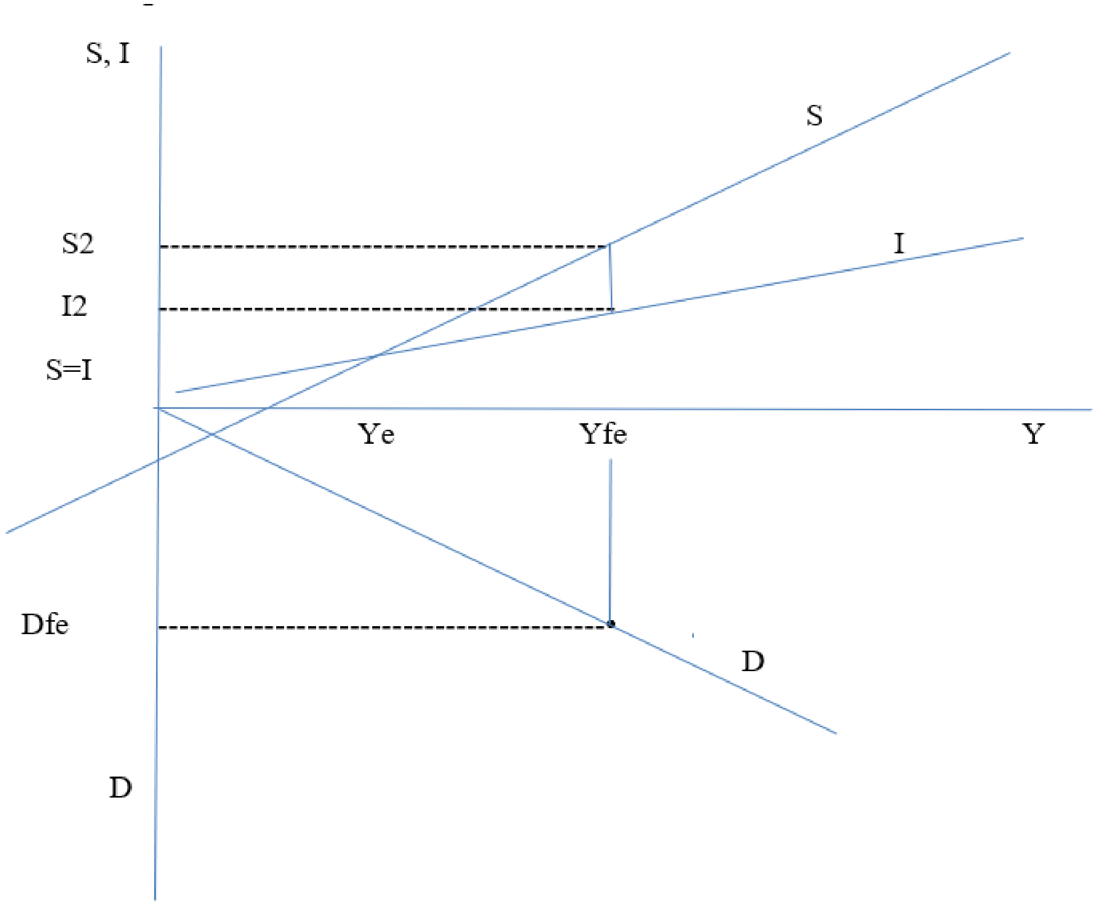
We can better understand and assess the savings–investment argument put forth at the TNEC hearings by modelling the economy in a context of injections versus leakages (see Figure 1). Putting aside the foreign sector, total injections—government spending (G) plus business investment (I)—must equal total leakages—tax revenue (T) plus private saving (S)—when the economy is at equilibrium income, Ye:

Injections = Leakages, therefore: (1) $G + I = T + S$

Rearranging terms gives us (2) $G - T = S - I$

This equality means that the government's budget deficit will equal the private sector's surplus. Figure 1 shows the saving–investment balance versus national income (Y) and national income versus aggregate demand (D). Both saving and investment rise with income, and the total spending or demand in the economy exactly equals national income (D = Y).

Figure 1: The Saving–Investment Balance



At *Ye*, *S* equals *I*. Ye represents the very low income of the Depression period and corresponds to a commensurately low demand level. This equality requires the government budget to be balanced, given equation (2). In the 1930s and before, policymakers largely accepted Classical economic maxims, one of which was that government budgets should be balanced. What the TNEC confronted was a depressed economy, the consequence of the Great Depression where the equilibrium income, *Ye*, was well below the full employment income level, *Yfe*. However, in a policy regime of balanced budgets, saving would not have been in excess of investment at the then depressed income level of *Ye*.

At *Yfe* though, saving exceeds investment, shown above as *S2 – I2*. If, as some economists at the time advocated, the government increased its expenditures so that demand grew to *Dfe*, income would be at Yfe, creating an income level that pushes the flow of saving above the flow of investment. Such a policy, as practiced some by the New Deal and substantially more so after 1940, created a break from Classical fiscal policy restraints.

We are partly at odds with the TNEC analysis of saving. Saving is a function of income (as the TNEC claims) and savings (a stock variable) depends on asset valuations (not mentioned by the TNEC). The Depression created a big decline in *saving* because of the fall in income and a big decline in *savings* due to the collapse in asset values. At the employment and income level prevailing in the early 1930s, under a balanced budget regime, saving equaled investment. The problem was that, at such depressed incomes, the ability to save fell way off and the savings stored in stocks and bonds plummeted in value with the collapse of financial markets. We think savings should be seen more as a passive variable, one that changes in the same direction as income and asset values. The problem then for the TNEC was one where aggregate demand was well below what was needed to compel the private sector to employ the full employment level of its citizens, and not one where saving was in excess of investment.[33]

The committee also was concerned with the effect of income inequality on the level of economic activity. Greater inequality of income would pivot the *S* curve counter-clockwise as income concentration led to more saving out of each dollar of income. Greater inequality would have the effect of lowering income and widening the gap between *Ye* and *Yfe*. Greater income inequality raises the propensity to save, and the lowering of spending and income resulting from the higher saving reduces investment commensurate with saving. Saving will be elevated over investment

[33] But this does not deny the point made by the TNEC and Keynesian economists that oligopoly and high inequality enhance the volume of savings while diminishing the outlets, under laissez-faire, for the savings. We would simply say that the key problem is generating the aggregate-demand growth necessary to produce full employment.

only if the government runs a budget deficit; otherwise, the two variables must balance at income equilibrium.

The TNEC was also concerned with how to increase private investment, as theme six of the report highlights. Successfully increasing the investment function would mean a counter-clockwise pivot of *I* in Figure 1, increasing income, and making saving again equal to investment but at a higher income level. If *I* would rise to equal *S* at *Yfe*, demand would be *Dfe*, and the government's budget would be balanced.[34]

It may be that the cause of depression was not excess savings per se, but that growth in saving propensity relative to investment created a constant drag on the economic growth and national income, given insufficient demand coming from other sources. If investment outlets fail to keep up with the generation of saving, economic growth will be held back. The Depression itself was sparked by a financial crisis, centered on a negative wealth effect coming from the stock market crash and three waves of bank failures that greatly lowered investment. Saving fell due to declines in income and employment, though saving had been high in the 1920s from the effects of oligopolization and high inequality. The pre-Depression economy, characterized by a historic stage of capitalism, produced a rising saving propensity but gradually restricted investment growth in the context of a 1920s stock market boom. Investment then collapsed with the onset of the Depression. The depressed economy of the early 1930s was an economy with a depressed income level, with a balanced government budget, and with an equilibrium between saving and investment.

Economic historian Peter Temin's view on the causes of the Great Depression differs from that of the TNEC report. The TNEC addressed concerns of monopoly, income inequality, excess of

[34] Once WWII demonstrated the effectiveness of government budget deficits, the then new Keynesian theory on deficits became more broadly accepted and employed as a policy tool. The creation of a budget deficit would increase national income and make saving exceed investment by the amount of the government's deficit. The Employment Act of 1946, while not prescribing any specific actions on the part of the federal government, made the government responsible for promoting free enterprise and fostering maximum employment, production, and purchasing power. This was to be accomplished with the cooperation of industry, agriculture, labor, and state and local governments (see Federal Reserve History, https://www.federalreservehistory.org/essays/employment-act-of-1946). Temin (2000) writes that "There needed to be a dramatic and highly visible change in policy. There needed to be symbols of the change that could be widely understood and that would be hard for policy makers adhering to the old regime to end" (314).

savings over investment, and insufficient investment as causes. Temin's (1976; 2000; 2010) work places importance on "nostalgic thinking" about the need for a gold standard for money, on currency crises and falling exports, and importantly, on declines in income and stock prices that led to declines in money demand and consumption. The bank panics, he thought, *resulted* from the decline in income.

Temin's work is Institutionalist in that it references evolutionary economic change and how economic doctrine becomes out of date with that change. In line with the TNEC, Temin addresses cartels and finance industry concentration, dividing commercial and investment banking via Glass-Stegal in ways perhaps interpretable as an anti-monopolistic practice (2000). He writes that,

> ...[P]rices in general began to decline in 1930. The more pervasive deflation cannot be attributed to the breakdown of cartels, and it was not closely correlated with the stock market… (310). … Another reason to divide commercial and investment banking was to reduce the power of the 'money trust.' Congressional hearings on banking held by Congressman Pecora exposed banker arrogance and - to some - a banking conspiracy against the people in addition. The ability to sell securities through bank branches, pioneered in the 1920s by the National City Bank, had enlarged the resources available to the 'money trust.' Congress chose to eliminate that source of funds to reduce the strength of the investment bankers. (319)

As stated above, the TNEC wondered why there was low business activity while the banks had record amounts of credit available. This question is rooted in the dominant thinking of the time, namely that banks are intermediaries and "push" or inject their reserves into the economy in order to earn profit from lending. The money supply was seen as exogenous in that banks contained the savings of the economy and would lend their capital to borrowers, stimulating demand.[35] The gold standard of the time constrained bank lending but the Federal Reserve existed to assist spending and investing in the economy by supplying reserves to banks based on

[35] The exogenous money theory is imbedded in the supply-side perspective of Neo-classical economics and a vestige of the quantity theory of money.

gold standard restraints. However, the TNEC overlooked what economic evolution had wrought in this one instance by not seeing that the economy had developed into a bank credit–money system where bank lending responded to borrower demand for credit. In other words, the money supply had become endogenous. Credit extension required a demand for funds, and the Depression had greatly reduced such demand. Banks were capable of extending credit but they faced a much reduced demand for money, even as borrowers confronted low borrowing costs.

3.4 TNEC Concern: War Mobilization and Democracy

The third major concern arose in part from the first two. The TNEC wanted to know whether there may be difficulty in mobilizing the economy to meet the national defense needs apparent in the late 1930s. Policymakers were looking at an economy suffering from the legacy of withstanding the Great Depression. Some economists were concerned that the savings–investment imbalance may hinder complete economic revival. And the arrival of an oligopolized economy may inhibit sufficient investment in capital to provide for national security. The TNEC expressed the need for a flexible fiscal policy and inflation control in the context of war mobilization, and the committee thought that such a policy would provide for policy flexibility without violating the separation of powers between the legislative and executive branches.

To meet the high resource demands of global war, the armed services relied on a small pool of large corporations. In many cases, large firms were selected for defense contracts precisely because they were the only firms capable of meeting the scale of the American mobilization effort. The very monopolistic practices critiqued in the TNEC investigations now facilitated the centralized economic planning needed to build the arsenal of democracy. Economic concentration had made firms singled out by the TNEC investigations—such as Alcoa and DuPont Chemical—indispensable partners with the Roosevelt administration. Indeed, many of the prominent civilian managers of Washington, D.C. defense bureaucracy came directly from the corporate sector. The TNEC's recommendations in its final report in 1941 thus arrived at a moment when economic concentration seemed ready to grow only more entrenched.

Yet the very same wartime dynamics undermined monopoly in other ways. New Deal administrators frustrated corporate leaders by successfully imposing regulations, capping profits, and imposing a significant degree of regulation. Smaller manufacturing concerns also benefitted from defense spending, laying the ground for greater competition in the postwar period.[36] And the anti-monopoly sentiment that had inspired the TNEC resumed with some force in the postwar period—most notably with *U.S. v Alcoa*[37] in March 1945, an influential legal decision that shaped antitrust law in the subsequent decades.[38]

3.5 The Stages of Capitalism

The TNEC study reflects the perspective of some modern economists who see the economic system of capitalism as having developed in stages or eras. The stages differ institutionally as the firm, banking and finance, the organization of labor, and the public policy regime evolve over time. Stages differ in terms of economic performance, the distribution of income and power, and financial stability (see Minsky 1986; Whalen 2001; Van Lear 2007, chap.2).

The TNEC was studying the economy at a time of transition from what is known as the era of finance capitalism (1896–1935) to a new stage called managerial capitalism or the Keynesian Consensus Era (1935–80). The Depression, the New Deal, and the war would create a new institutional economic base. The financial instability effects of capitalism were the concern of the Pecora Committee in the early 1930s. The consequences of finance capitalism for the 1930s became the purpose of the TNEC hearings in the late 1930s. Among the TNEC's concerns were the continuance of depression-like economic conditions throughout the 1930s, and the recognition of the rise of self-financed large companies which, by their control of large volumes of internal funds, were pushing banks into consumer lending and holding of government bonds. The TNEC report further confirmed the separation of ownership from control.[39] And the

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[36] For a comprehensive look at this period, see Wilson (2016, 48–91).

[37] *United States v. Aluminum Co. of America, 148 F.2d 416 (2d Cir. 1945).*
https://www.law.cornell.edu/supremecourt/text/377/271

[38] *U.S. v. Alcoa* broke new ground in anti-trust law, applying anti-trust to non-domestic corporations, and opening up the market to two new competitors. For a reading on *Alcoa*, see Smith (2003, 191–249). On mid-twentieth century antitrust efforts, see Glick (2019, 37–43).

[39] The seminal works by Berle and Means (1932), and later by Galbraith (1967)—in what he termed "the new industrial state"—provide evidence of the separation of control from ownership.

committee's finding of the institutionalization of savings predates the contemporary era of money manager capitalism (1980–present).

The TNEC hearings led to the idea that the historical increase in industry concentration had raised the volume of investment needed to maintain economic activity, yet reduced outlets for investment as firms sought not to take business away from existing facilities. In other words, the rate of investment was often too low to fully utilize what the economy had accumulated in savings. The TNEC recognized that the economy had long passed times of resource scarcity. The issue had become, not too little capacity or too little savings to create prosperity, but too little demand growth to create full employment conditions.

The significance of the TNEC report in terms of capitalist stages is in the committee's recognition that economies evolve and thereby change institutional form. Their concern was over oligopoly's effect on the savings–investment balance in the context of the then ascendant Keynesian understanding of the importance of spending growth and use of fiscal tools in achieving broad-based prosperity (NYT 10/26/40 p7; 12/6/40 p14; 3/10/41 p16). This conception of the economic system's built-in problems reflects the concerns of the day among some economists about secular stagnation (see Hansen 1939; 1955) and that concern resurfaces in today's debate about modern capitalism's inclination to stagnate (see Van Lear 2014; Palley 2007).

The stage approach to capitalism reveals a close comparison between the era examined by the TNEC and modern money manager capitalism (Van Lear and Sisk 2010). The eras resemble each other in terms of their speculative finance, employment conditions, union difficulties, globalization, rising productivity not shared across income classes, corporate restructuring and merger waves, and in their political shift away from economic progressivism to a resurgent free market political economy. Some systemic differences exist too. Finance capitalism employed a gold standard, a monetary policy based on Fed loan extension, and investment bank corporate board influence. This era employed *fixed* exchange rates. The current system employs fiat money, a monetary policy of interest rate setting through open market operations, and a stockholder wealth maximization objective over company investment.[40] This era employs *flexible* exchange rates. The modern economy is subject to quick policy intervention when economic activity weakens, whereas the early twentieth-century economy exemplified an era of a gradual acceptance of and experimentation with intervention while still being bound by the Classical limited government principle. The TNEC examined an era where corporate control and investment decision-making separated from corporate ownership and the provision of finance. The executive echelon controlled and invested while a financial class extended savings capital and speculated on asset price changes. This latter feature pervades the current money manager era, but in both stages, large oligopolistic companies retain substantial cash hoards on their balance sheets. In effect, the contemporary stage is a modernized or evolved version of the early twentieth-century American economic system.

Another difference in these two stages of capitalism has to do with the role of the wealth effect and the modern cooperation and aggressive policy action taken by fiscal and monetary policy officials. A wealth effect on aggregate demand arises when financial asset prices rise substantially in value over time. Higher asset prices create greater wealth for people who hold the appreciated assets, which in turn encourage lower saving and more spending. Greater wealth also allows for additional borrowing since collateral values affect bank willingness to lend. In today's economy, the importance of the wealth effect is on total private demand—not just investment as in the 1920s—and high asset valuations have some sustainability to them today given a full public policy commitment to stock price elevation.

Bubbles during finance capitalism represented a more financially fragile economy than bubbles do today. Prolongation of financial bubbles required sheer stock market psychological exuberance, but in today's economy, wealth effects boost consumption as well as investment and public policy intervention is now guaranteed to maintain high asset prices.[41] The policy question for our time is whether a change in political context could lead to a revocation of the current, counter-cyclical financial market policy commitment. If such a reaction was to take place, by

[40] On the importance of stockholder wealth, see Lazonick and O'Sullivan (2000).
[41] For example, Federal Reserve bond holdings are positively associated with stock prices.

withdrawing public policy support for stock valuations, price earnings ratios could not reach the heights they do now, bubbles would be indicative of speculative fragility, and wholesale speculative sell-offs of financial assets would create the depressing demand effects experienced at times during the latter third of the nineteenth century and the early twentieth century.

Another cross-era concern is the effect economic structure has in creating slow recoveries from downturns. While early twentieth century recoveries from downturns occurred rather quickly, a full recovery from the Great Depression took a decade and required a world war to completely end the depressed conditions of the 1930s. The prolonged difficult conditions of the decade also presented a major TNEC concern. Keynes (1936)[42] and Hansen (1939) proposed theoretical explanations for sub-par economic activity and low business investment. A similar worry arises in our twenty-first century financialized era. Despite active intervention, recovery to high employment proved to be slow in the early 1990s and again in the early 2000s. Progress was slow following the financial crisis of 2007–2009. The economy failed to reproduce full employment quickly during the finance capitalism of the 1930s and again during money manager capitalism after 2009. Both eras exhibit legacy effects of financial crisis and institutional structure. The relatively good performance overall of the current era is critically due to the unprecedented support of public policy initiatives and not from the era's financially speculative feature created from deregulation and globalization.

3.6 The Conservative Perspective at the Time

On the one hand, if economic problems entail defects in the economic system, necessitating attention to address institutional concerns, corrective policy would have to be directed at structural adjustments. American populists, progressives, unionists, and reform-minded economists associated with the American Economic Association advocated for structural changes in the economy. On the other hand, sub-par economic performance could be due to government intervention that disrupts markets or to action that undermines incentives. Business leaders and conservative pre-New Deal economists portrayed the economy's problems as stemming from the latter theorized causes. Government policy was argued to undermine business

[42] In Keynes' (1936) work, see chapter 12 section 6 and chapter 24.

confidence to spend and take risks. These concerns were again propounded during and following the 2007–2009 financial crisis (Laffer and Moore 2010).

The Classical School of Economics is what informed macroeconomic policy thinking of the latter half of the nineteenth century and the first three decades of the twentieth century. For much of this period until the Progressive Era (1901–20) there was minimal state intervention in the economy. No operative central bank existed until 1914, and its actions from 1914 on were restrained some by the gold standard and the quantity theory of money held by monetary theorists. Classicism viewed the economy as largely self-regulating through price flexibility. Domestic demand was a product of production and though business cycles existed naturally, intense swings were outcomes of policy errors not problems stemming from the economic system. Good public policy required balanced government budgets and a legal system that maximized business freedom to compete and invest. Despite a record of financial crises and depressions in capitalism, the reigning philosophy of the period was largely laissez-faire.

Keynes (1936) adeptly explains the persistence of the Classical philosophy, and why conservative thinking held sway over policy in the midst of contravening experience. He writes,

> The completeness of the Ricardian victory [classical school] is something of a curiosity and a mystery. It must have been due to a complex of suitabilities in the doctrine to the environment into which it was projected. That it reached conclusions quite different from what the ordinary uninstructed person would expect, added, I suppose, to its intellectual prestige. That its teaching, translated into practice, was austere and often unpalatable, lent it virtue. That it was adapted to carry a vast and consistent logical superstructure, gave it beauty. That it could explain much social injustice and apparent cruelty as an inevitable incident in the scheme of progress, and the attempt to change such things as likely on the whole to do more harm than good, commended it to authority. That it afforded a measure of justification to the free activities of the individual capitalist, attracted to it the support of the dominant social force behind authority. (32–33)

Conservatives of the era were critical of the New Deal and the TNEC. The critique of the policy regime and the investigation were related because activist policy and the TNEC report were a threat to the then business-finance dominated stage of development. Some business leaders expressed concern over how the psychology or attitudes of investors were being impacted from New Deal programs. Some called for the repeal of profits and capital gains taxes, the stopping of artificial respiration of uneconomic business units, and ceasing the undermining of confidence in investors about the continuance of the free enterprise system (NYT 5/21/39 pE7).[43]

Republican leader Robert Taft warned that state regulation would lead to collectivization and loss of liberty. New labor law had undermined business activity; the government needed to restructure the National Labor Relations Board. He also thought that the Security and Exchange Commission had gone beyond its original intent to provide basic protections for equity investors (NYT 2/4/40 p3).

Republican Wendell Willkie proposed a counter argument to economists pushing the savings–investment imbalance explanation for why men were idle. He blamed large government spending, high personal and corporate taxation, and capricious interference into business decision-making by regulatory commissions. He claimed that all forms of freedom stand and fall together. Government power in the economy must lead to the control of other individual activities (NYT 5/19/39 p20).

Herbert Hoover's position of New Deal policies was summarized in an interview with his biographer George Nash:

> As a tireless exponent of voluntarism in civil society, he emphatically repudiated the statist ideologies of the 1930s, including the New Deal. He railed at burgeoning bureaucracy and the stifling and authoritarian impulses of the centralized, regulatory state he perceived to be arising under Franklin Roosevelt. He was an ardent American exceptionalist who inveighed incessantly against the "planned economy" and noxious

[43] Shlaes (2008) makes the case that "regime change" imposed by the New Deal repressed business investment and therefore extended the depression.

> collectivist ideologies emanating from Europe. And so, when the New Deal, in Hoover's judgment, launched the nation in 1933 on a dangerous lurch to the Left, the former president and onetime, self-styled "independent progressive" became a man of the Right. In 1937 he told a friend in a very revealing letter: "The New Deal having corrupted the label of liberalism to mean collectivism, coercion, [and] concentration of political power, it seems 'Historic Liberalism' must be conservatism in contrast." (Hoover's Crusade, 2014).

Alternative theories to the TNEC's proposal held that depressions were caused by over spending, excessive debt, and foolish investments. The theories of New Dealers were regarded as socialist theories aimed at pushing the US toward bankruptcy and socialism (NYT 3/6/41 p20). Federal controls burdened investors and discouraged new enterprise (NYT 4/1/41 p22). Industry believed that price and wage controls would create a straight-jacket, imposing inflexibility and undermining production. Supervisory controls would be cumbersome and costly (NYT 3/22/41 p8).

A final set of criticisms concerning the committee's work and the views expressed during its hearings included whether the public understood enough economics to properly assess the ramifications of enacting legislation driven by the hearings and whether the whole effort was just for Democratic Party political gain. For example, investment bankers were concerned that the public did not understand the workings of the capital markets (NYT 5/13/40 p29). The TNEC was thought to be searching for evidence of conclusions its members already held. Legislation could result from the hearings that could penalize firms for vaguely defined legal violations pertaining to antitrust policy, and if so, would keep money idle (NYT 7/5/1939 p16). The claim was made that the SEC worked on the corporate ownership issue to help the Democratic Party in the 1940 election (NYT 10/8/40 p40). The TNEC fell victim to the economic bias of economists who dominated the hearings (NYT 3/17/41 p16) instead of staying focused on the complex problems of monopoly, and the committee had ventured into an overly wide set of economic issues. And finally, the TNEC confused corporate organization with individual concentration of wealth. The federal government was thought to be reaching for more control over industry, justified by the findings of the TNEC report (NYT 3/13/41 p20).

4. FURTHER ASSESSMENT AND REFLECTION

We end the paper by examining a key theme throughout the TNEC report, namely, the connection between institutional context and economic performance. We first look at the thoughts of three economists, Keynes, Friedman, and Schwartz, and the historian Shlaes. We then review the thrust of the TNEC argument coming from its investigation and findings. From this, we address the importance of context, both institutional and economic, in the post-1932 economic recovery.

Keynes (1936, chap 11–12) placed emphasis on the potential for long-term capital investment to be dramatically suppressed by depressed economic conditions. A policy reduction in borrowing costs would have little effect on investment unless the *perceived* rate of return on investment had rebounded substantially. The revival of private investment required the expectation of elevated returns, confidence of financial success, and the maintenance of the convention that the future would closely resemble a recent past of successes. Keynes thought that investment return was of fundamental importance because “it is mainly through this factor (much more than through the rate of interest) that the expectation of the future influences the present” (145). Furthermore, “a collapse in the price of equities, which has had disastrous reactions on the [rate of return], may have been due to the weakening either of speculative confidence or of the state of credit. But whereas the weakening of either is enough to cause a collapse, recovery requires the revival of both” (158). Keynes adds that slumps may be significant, and that prosperity is “excessively dependent” on a political and social atmosphere which is “congenial to the average business man” (162).[44]

Friedman and Schwartz (1963, 407–19) attribute the Great Depression to a failed policy response and to the structure of the Federal Reserve System. With respect to policy, the Fed failed to stop

[44] Note that Keynes (1936), like conservatives, emphasized the importance of confidence and what he called “animal spirits” for enlivening entrepreneurial initiative. The difference is that Keynes attributes reduced initiative to endogenously repressed return rates from system failures while conservatives attribute initiative loss to exogenously imposed policy.

the decline of the money supply via open market operations, resulting in economic contraction and three waves of bank failures. By not acting as lender of last resort, the Fed allowed a recession to develop into an unprecedented depression. As to central bank structure, Friedman and Schwartz argued that the institution was too decentralized. No national coherent monetary policy could be formulated. They also pointed to a reluctance of cooperation between the Federal Reserve regional banks and Fed Board.

Another effort at establishing the importance of context comes from Shlaes (2007). Her argument is that New Deal industrial and labor programs slowed the economic recovery of the 1930s. She writes that rules written under the National Industrial Recovery Act and the National Labor Relations Act (NLRA) created a markedly new macroeconomic regime that discouraged business investment, frightened away capital, and discouraged new hires. Partial blame for the continuing high unemployment up to the late 1930s is placed on strikes that were made possible by the NLRA. New Deal labor legislation pushed up wages that undermined profits and created a "capital strike" by business. Shlaes concluded that it was government intervention that extended the duration of the Depression. *Regime change* prolonged the Depression.

Thinking about the above positions on context, we repeat below what we understand to be the main concerns and findings of the TNEC report:

1. The economy is characterized by a concentration of corporate ownership and oligopolized industries.

2. Oligopoly is responsible for a savings–investment imbalance. One the one hand, an increase in industry concentration was thought to raise the volume of available savings in the form of retained profits. On the other hand, oligopoly was thought to reduce outlets for investment because firms did not want to take business away from existing facilities.

3. Reinforcing number two above, high-income inequality prevailed in the economy, and that, in turn, reduced the level of economic activity and increased the savings imbalance.

4. The American economy had evolved from the more competitive age of industrial capitalism to a system that had amassed financial capital and had separated corporate ownership from corporate control.

We think the regime backdrop and the policy and rhetoric of government matter for encouraging private initiative and profits and for the protection—and thus the security—of private property. Secure property leads to risk-taking and investment. But we have two thoughts concerning policy regime change that lead us to think that such changes had minor negative effects on private activity in the 1930s. First, policy regime changes that are dramatic and occur over short periods of time—for example from coups or wars—can have markedly negative effects because of potential threats to property security and for the greater than normal uncertainty level they create. But the New Deal regime change was the result of the five previous years of declining economic performance, and that performance was contextualized by the transformative systemic change coming out of the Gilded Age. Capitalism was threatened by early twentieth century institutional breakdown, not by the New Deal. A moderately high unemployment rate persisted throughout the 1920s, an economic slowdown began in the middle of 1928, and there was an all-out recession by the summer of 1929. The fall of 1929 brought a stock market crash, followed by bank runs and failures and rising unemployment over the course of the early 1930s. The domestic economic landscape had been changing for some time, the international gold standard was being abandoned while currency volatility existed, and the Hoover administration created the RFC and raised taxes to balance the government's budget. The prolonged poor performance of the economy had already suppressed business investment and aggregate demand in general, and discussion was well under way concerning possible alternative policy measures.

Secondly, the critique that the NIRA created a cartel – like economy is weak because the NIRA legislation only lasted from 1933 to 1935. This law had a two-year sunset provision and was declared unconstitutional by the Supreme Court. Anyhow, the economy had already become oligopolistic over the three previous decades. The capacity to create high profit margins through price increases or cost cutting had already been accomplished. Price deflation and falling aggregate demand stopped in 1932; afterwards, general prices and total spending rose. Investment rose after 1932—save, in 1937—despite the two-year existence of the NIRA (EHUS statistics). And finally, macro-growth rates in 1933–37 were in the eight percent range, demonstrating a rather fast recovery by historical standards (see Romer 1992; FRED data bank). An economic contraction of 33 percent from mid-1929 to mid-1933 required substantial time to recreate high employment conditions.

With respect to Friedman and Schwartz's policy or institutional view, more power was placed into the Fed Board to set interest rates in the mid-1930s, and open market operations, in a non-constrained gold standard system, demonstrated their effectiveness during WWII. But the Friedman-Schwartz case is more about explaining why the central bank failed to take appropriate policy action to avoid the Depression, not to explain what some perceive to be a very slow recovery from the Depression. We also think there is too much reliance on the quantity theory of money in this explanation, as their theory about monetary policy actions and money growth is based on the notion that the provision of money into the economy is exogenously done. The large decline in money in the early 1930s was, we think, an endogenously driven effect of the large decline in the demand for finance, itself a product of the overall decline in aggregate demand.[45]

It is clear from the TNEC report that committee members and many of the people they interviewed believed that regime matters for economic performance, but the report does not emphasize the political regime but the economic one. The committee believed that the evolution of the economic system into a concentrated corporate one had increased inequality and had boosted the volume of savings but retarded the level of investment. The inability of the economy to quickly return to high employment and output resulted from the systemic restraint placed on business investment that made firms incapable and unwilling to absorb the massive amount of financial capital at their disposal.

[45] Additional support for institutional importance comes from Bernanke (1983). He writes that, in addition, to the decline in finance demand, the depressed economy reduced the credit allocation efficiency of the providers of funds. The efficiency decline reduced credit availability and raised its cost. The disruption to the supply of credit helps to explain the unusual length and depth of the Great Depression.

Moreover, we think that the institutional structure described by the TNEC is an accurate one, and is very much in line with heterodox economists and journalists who have written about the development of a modern, post-agrarian economy that arose in the latter half of the nineteenth century.[46] We think institutions matter too but in the case under consideration, the New Deal policy regime did not, per se, slow the recovery. Complete recovery required much time to reverse economic momentum and to recreate the conditions congruent with full employment. Public policy action was essential given the depressed conditions, and the length of time needed to generate recovery from dependency on the laissez-faire model was politically and socially unacceptable. The economic regime leading up to the late 1920s did create—after decades of evolution—a highly efficient system of mass production, necessitating a sustainable, mass spending economy.[47] The institutional structure of the period could not guarantee a continuously high and growing demand from private expenditures and made demand vulnerable to the financial instability of the finance capitalist era. The TNEC was right to be concerned with inequality and large amounts of savings but for a different reason. The crux of the problem came from an institutional structure that made aggregate demand dependent on financial asset prices. Asset price booms fostered investment, as in the 1920s, and asset price collapses undermined investment, as in the early 1930s.

Deep slumps are hard to overcome, as Keynes explains in his *General Theory* (1936, ch. 22). Falling rates of return slow investment and slumps can greatly depress investing initiative. The slump can then become protracted. Spikes in liquidity preference push up borrowing costs just when lower costs are needed. Surpluses of unsold goods and lowered cash flows reduce the incentive to invest until the surpluses are worked off and sales begin to pick up. Unemployment reduces consumer expenditures as does the decline in stock prices. Upon witnessing the depressions affecting world economies, Keynes became skeptical that, under laissez-faire, private economies could self-correct out of slumps. He therefore thought “that the duty of ordering the current *volume of investment* cannot safely be left in private hands” (320). Given the extensive discussion in the report of demand stimulus tools, the TNEC is in agreement with

[46] In addition to the citations above, see DuBoff (1989) and Walker and Vatter (1997).

[47] Galbraith’s study (1954, chap 9) of the Depression locates the demand problem in 1920s, productivity out-running wage growth, and profits out-running investment.

Keynes about the essential role played by aggregate demand in affecting the economy's performance, and by the importance of institutional structure in supporting the required demand.

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