LESSONS FROM THE FIRST NEW DEAL FOR THE NEXT ONE

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Metaphors matter. As a metaphor, the "New Deal" has been mobilized both in response to climate change and in support of President Biden's rescue and infrastructure initiatives. It needs examination if it is to go from serving as a mere slogan to defining a coherent program. Compelling invocation of the New Deal turns on:

- Building *state capacity* for implementing interventions in the market economy;
- Navigating potential conflicts in *overlapping missions*; and
- Managing inescapable tradeoffs between *efficiency versus effectiveness*.

For a long generation from Pearl Harbor, the language of war provided the liberating rationale for mobilization of resources by the American state. Liberating, because a legitimate war frees state actors from the constraints of prospective cost-benefit analysis, where the costs are always easier to quantify than the putative benefits. "Whatever it takes" is the message.

From World War II through the Korean conflict and the 40-year Cold War, including the War on Cancer, this metaphor did its job. The overriding importance of the mission outweighed the economic calculus of opportunity cost versus net present value of expected returns. In this spirit, World War II was won "on the unorganized momentum of American Democracy," not by the efficient allocation of scarce resources amongst competing demands.[1] But after Vietnam, the endless quagmires of Afghanistan and Iraq, the War on Drugs, and the Global War on Terror, the language of war has lost its rallying force. It has been debased. This why retrieval of the "New Deal" as metaphor is so relevant.

In folk memory, FDR's New Deal combined relief, reform, and positive investment in one great seamless demonstration of the progressive potential of vigorous government. In reality, it was complicated and conflicted. Multiple references to FDR's own statement of purpose in his 1932 campaign hint at recognition:

The country needs and unless I mistake its temper the country demands bold persistent experimentation. It is common sense to take a method and try it If it fails admit it frankly and try another. But above all try something.

The successive experiments that characterized the New Deal during FDR's first two terms, prior to the onset of World War II, illustrate the conflicts - even contradictions – that may be expected to result from improvising policy responses to crisis. Consideration of those policy responses focuses attention on three prime lessons for any administration that seeks to devise and execute grand programs, whether in response to systemic financial and economic collapse, a viral pandemic, or climate change.

(RE)BUILDING STATE CAPACITY

New Deal: At the onset of the Great Depression, the economic footprint of the Federal Government was minimal: expenditures were less than 2% of retrospective estimates of GDP. Apart from the armed forces totaling some 260,000, Federal civilian employment at 500,000 (half of whom worked for the Post Office) was only 1% of the employed labor force of 50 million. By the time Franklin Roosevelt took office in March 1933, the share of Federal expenditures had almost doubled, but that was because GDP had declined in nominal terms by almost 50%.[2]

This meant that the new agencies created during the famous First Hundred Days were starting from scratch. For example, the Public Works Administration (discussed at greater length below), created by legislation on June 16, 1933, hired some 6,000 staff in two months. The Deputy Administrator, Henry M. Waite, subsequently recalled:

First they hired lawyers, many lawyers – more than 100 for the Washington office alone…

After the lawyers came the engineers…

Added to all these were the platoons of accountants, clerks, stenographers, and typists, until there were more than 2,300 jammed into the Interior Department building.[3]

Another 3,700 new recruits staffed the PWA's 10 regional offices.

The same was true of all the other alphabet soup of Administrations, Agencies, Bureaus, and Commissions created under conditions of extreme urgency. Inevitably the Federal programs had to look to the states for support in implementation. But, constrained by their constitutional requirements to balance their budgets, state expenditures fell with the Depression-forced reduction in their tax revenues. And so, in critical instances as we shall see, partnerships with business became a fact of life.

In one crucial respect, however, FDR's capacity to mobilize state authority was unchallenged. Massive Democratic majorities in Congress backed his executive initiatives through his First Term, even though the power wielded by the Southern segregationist components of his coalition were manifest in every piece of New Deal legislation. Substantial congressional opposition only emerged in the late 1930s, as Southern Democrats increasingly aligned with a Republican minority much strengthened in the 1938 off-year election.[4]

Today: In 2018, Michael Lewis correctly anticipated the crisis of state capacity that confronted the Biden Administration in January 2021.[5] That crisis was compounded of two processes operating on two very different timescales.

A generation-long effort to restrict the scope and scale of the Federal Government's engagement with the market economy was aggressively pursued whenever Republican Administrations and/or Republic majorities in Congress held power, from 1981 on. And from the Carter Administration, which initiated the first roll back of market regulations, through the Clinton Administration and even to some extent during the Obama Administration, Democratic neoliberals acquiesced.

Agencies such as the Internal Revenue Service and the Anti-Trust Division of the Justice Department were starved of funds. The Congressional Office of Technology Assessment was closed. As Matt Stoller has documented, government officials were mandated to defer to increasingly concentrated private contractors with the expected consequences in terms of rent extraction both by suppliers and the consultants increasingly invited into the process.[6]

During the four years of the Trump Administration, the attack on state capacity accelerated in new ways. On the one hand, any existing element of the Federal Government that could be deemed concerned with responding to climate change was proposed for liquidation, as was the Energy Department's Advanced Research Projects Agency. Additionally, whether or not Congress (as with ARPA-E) refused to confirm such initiatives, the Trump Administration pursued a less transparent course.

Across the Federal Government, new rules and regulations were promulgated to reduce the reach of the "Administrative State," deemed pernicious by construction. And Trump appointed senior personnel dedicated to opposing the mission of those agencies they had been chosen to lead. To the extent possible, they were granted civil service status to render it more difficult for the new Administration to remove and replace them.

Everywhere access to expert scientific and technological policy guidance was minimized if not totally foreclosed. The White House Office of Science and Technology Policy is a case in point: it took 18 months from Trump's inauguration for any Director to be appointed and once appointed there is "scant evidence" evidence that the Director

tried to mitigate any of the administration's most controversial policies relating to science and innovation. The list includes its chaotic approach to the COVID-19 pandemic, withdrawing from the Paris climate accord, rolling back a slew of environmental regulations, restricting immigration, and proposing deep cuts in the budgets of most federal research agencies.[7]

The Biden Administration has an enormous challenge just to undo the damage wrought in the past four years. But there is a further, transcendent component of state capacity, one that for the most part FDR did not have to confront, at least until he was challenged to pledge, during the 1940 presidential campaign, that "your boys are not going to be sent into any foreign wars." This is the matter of basic trust in the country's political leadership.

President Biden may be constructing a path towards rebuilding trust through success in delivering the Corona virus vaccines to the arms of the American public as well as delivering the retroactive insurance payments provided by the American Rescue Plan. Demonstration of what a competent state can deliver in pursuit of a well-defined mission is a necessary step. So far, it appears that the President has met the most critical test: Under Promise and Over Perform. The broad public support he has earned stands in stark contrast with the almost unanimous opposition of Republicans in the narrowly divided houses of Congress.

STRATEGIC MISSIONS

New Deal: FDR's New Deal encompassed three strategic missions: **recovery** from the Depression, **reform** of particular aspects of the market economy, and **regime change** in the fundamental structure of the American political economy. A necessary condition for freedom to act was an assertion of nationalist autonomy: escape from the "golden fetters" of the gold standard and refusal to stabilize the international value of the dollar against sterling or the franc.[8]

On December 31, 1933, the New York Times published an open letter from John Maynard Keynes to President Roosevelt. The core of the message was delivered in the third paragraph:

You are engaged on a double task, Recovery and Reform;--recovery from the slump and the passage of those business and social reforms which are long overdue. For the first, speed and quick results are essential. The second may be urgent too; but haste will be injurious, and wisdom of long-range purpose is more necessary than immediate achievement. It will be through raising high the prestige of your administration by success in short-range Recovery, that you will have the driving force to accomplish long-range Reform. On the other hand, even wise and necessary Reform may, in some respects, impede and complicate Recovery. For it will upset the confidence of the business world and weaken their existing motives to action, before you have had time to put other motives in their place….[9]

Keynes' economic genius was not fully matched by his political insight, even in Britain where he failed to win over the political and administrative leadership of the country to overt policies of macroeconomic stabilization until World War II.[10] FDR, by contrast, recognized that the context of crisis was necessary to enable the profound structural reforms to the American political economy that he proposed.

The central policy to which Keynes addressed himself was the National Recovery Administration, Part 1 of the National Industrial Recovery Act passed in June 1933. The NRA proposed a comprehensive system of "codes of fair competition" that were required to include: (1) a specified minimum wage, (2) a specified maximum number of working hours per week, and (3) recognition of the workers' right to collective bargaining. The goal was simultaneously to restore the profitability of employers and to increase the purchasing of power of employees. The means were the legal cartelization of markets, both for goods and labor services.

Often neglected by economic analysts of the NRA is that the author of its source-text was no New Deal radical but rather Gerard Swope, President of General Electric. In September 1931, Swope had proposed a national assemblage of trade associations under the supervision of the Federal Trade Commission with authority comparable to the NRA's codes.[11] Following where Swope had led, the NRA precisely operationalized Adam Smith's famous remark: "People of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the publick, or in some contrivance to raise prices."

Given the constrained state capacity of the New Deal, the industry committees mandated by the NRA were dominated by business. The tobacco industry, already notorious for its political clout, succeeded in preventing any code from emerging. In the oligopolistic heavy industries – steel, autos – the Administration's only bargaining chip, exemption from anti-trust enforcement, was irrelevant. By the summer of 1934, after a transient surge in prices and wages, noncompliance was rampant.[12] A year later, the Supreme Court declared the NRA and other New Deal interventions on the supply side of the market economy unconstitutional. By denying that the federal government had the authority to respond to the crisis, the Court transformed a policy fiasco into a popular political cause.

As the incipient recovery appeared to stall and in response to the Court's challenge, FDR launched the substantially more radical "Second New Deal" of 1935, encompassing the Social Security Act, the National Labor Relations ("Wagner") Act, the Banking Act of 1935, the Rural Electrification Administration, and the Public Utilities Holding Company Act. Recovery resumed in timely fashion for FDR's triumphant reelection in 1936: Recovery and Reform marched hand in hand. Although the extent to which the Supreme Court "followed the election returns" is contested, in the event the Court broadly validated the constitutionality of the Second New Deal.

Today: The immediate strategic priority facing the Biden Administration embodies no conflict: to accelerate **Recovery** from the pandemic in order to **Restore** economic prosperity. The American Rescue Plan Act of 2021, however, combines funding for enhanced vaccination programs and retroactive insurance payments for those economically damaged by public health lockdowns with a host of progressive reforms. Measures such as expanded child and earned income tax credits may be formally time limited, but they suggest this Administration knows how to exploit crisis for progressive ends, very much in the spirit of the second phase of FDR's New Deal.

Looking Forward, **Response** to climate change, **Inequality** of income and wealth, and **Racial Justice** may seem bound to compete for priority. But, not unlike the first New Deal's haphazard integration of recovery and reform and President Biden's own American Rescue Plan, programs to "green" the U.S. economy can serve both to reduce inequality and promote racial justice. The specific mix of programs and the ways of financing them are what matter. Integration of such priorities can be approached by concentrating direct state funding and indirect state subsidies, financed by progressive taxation, to deliver green infrastructure preferentially to those constituencies without the resources to protect themselves from the impact of climate change.

One central initiative – reflexively recommended by almost all conventional economists – is a carbon tax high enough to endogenize the costs that generating carbon dioxide imposes on the environment. Get the prices right, mainstream economics asserts, and the market will take care of the rest, efficiently allocating resources to serve the multiplicity of demands. But resource allocation is not all that markets do. They also distribute the returns generated by the employment of those resources.

One unconventional, Nobel-prize winning economist, Joe Stiglitz, identifies the crucial flaw in the argument for a carbon tax:

carbon taxes have distributive implications. In particular, it may be (if carbon consumption increases less than in proportion to income), and be perceived to be, regressive.[13]

The politics of a carbon tax are further complicated because the distributional consequences are not only "vertical," adversely affecting the poor more than the rich, but also "horizontal," with differential impacts on people with similar incomes but different degrees of dependence on carbon-generating sources. One obvious example is the difference between city-dwellers with access to public transportation and rural populations utterly dependent on their cars. Any resort to taxing carbon is bound to be complicated by rebates and exemptions and augmented by regulations such as increased fuel efficiency standards or even – as in the UK – by prospective banning of hydrocarbon fueled automobiles.

Consideration of a carbon tax as *the* solution calls attention to the third dimension along which we can learn from the first New Deal. This is the inevitable tension between **Efficiency** and **Effectiveness**. In economic terms, a Carbon tax, indeed, would be theoretically the most efficient response. But when it comes to responding to crisis, Efficiency can be the enemy of Effectiveness. FDR's New Deal offers a most relevant case in point.

EFFICIENCY VERSUS EFFECTIVENESS

New Deal:The National Industrial Recovery Act had two parts. In addition to the NRA, it also created the Public Works Administration with an unprecedented appropriation of $3.5 billion. Recall that at the time, total Federal annual expenditures were less than $2 billion. What is more, dramatizing the conflicts engendered by aggressive experimentation, the Economy Act of 1933 has already been passed to *reduce* Federal expenditures by $500 million, honoring a campaign pledge to restore confidence by balancing the budget, whose deficit was the result of the collapse in tax receipts. FDR squared the circle by establishing an Emergency Budget, which included the PWA, distinct from the traditional one.

As Administrator of the PWA, FDR named his Interior Secretary Harold Ickes. Ickes was a committed progressive who had left the Republican Party to join Teddy Roosevelt's third- party campaign in 1912 and never returned. He inherited an Interior Department that was deeply tainted by corruption, most recently by the Teapot Dome Scandal of the Harding Administration: the then Secretary had been bribed to lease naval oil reserves under the Department's supervision to private oilmen. Ickes was determined to reconstruct the Department's reputation as subject neither to financial nor political influence. And this determination carried over to the PWA.

A project proposed for PWA funding passed through a sequence of detailed analyses - engineering, legal, economic, financial -, before it worked its way up to FDR himself for final approval. For Ickes, this was a feature, not a bug. His biographer puts it well:

Ickes firmly held that speed was less important than stability, permanence, and a fair return to the government for its investment.[14]

After six months, only $110 million of the appropriation had actually been spent.[15]*Business Week* remarked that "Mr. Ickes is running a fire department on the principles of a good, sound bond house."

Under "Honest Harold," however, the PWA delivered a host of great works, from the Triboro Bridge and Lincoln Tunnel in New York to the Grand Coulee Dam and San Francisco Bay Bridge in the far west, and all without scandal. The PWA, indeed, represented efficiencyin the expenditure of public moneys for public goods. But measured unemployment was still above 20% when the first appropriation ended in 1935. In response, FDR turned to a man, Harry Hopkins, who was temperamentally Ickes opposite while also possessed of relationships with those big city machines that Ickes had dedicated himself to fighting. And Hopkins had already demonstrated remarkable effectivenessin the early days of the New Deal.

In October 1933, with few signs of recovery visible, $400 million had been pulled out of the PWA to fund the Civil Works Administration, the New Deal's first program of "work relief." Under Hopkins, the CWA put more than 4 million men to work at PWA wages (well above the paltry level of relief payments) in barely three months. It was, in fact, so effective in spending its money that it ran out of cash and closed down on March 1934.

Now, frustrated by the slow pace of recovery and appropriately alert to the rise of radical voices such as Louisiana's Huey Long, FDR asked and got $4.8 billion for a new program of work relief. The Works Progress Administration was led by Hopkins over Ickes staunch objections. It was inevitably politicized, both by the need to rely on local proposals for projects and Hopkins own propensity for alliance with local political powers. It was all the more effective as the result, giving work to more than 5 million men over its first three years.

The broad range of projects, including public art and entertainment as well as road improvements and sewage works, led critics to label it the sponsor of "boondoggles." In 1935, Ickes suggested to Vice President Garner that "the way the money was administered might mean the defeat of the administration next year."[16] As usual, FDR understood the politics, remarking: "If we can boondoggle our way out of the Depression, that word is going to be enshrined in the hearts of Americans for many years to come."

The PWA and the WPA exemplify the programmatic and institutional alternatives for how to mobilize resources for strategic purposes. During the first New Deal, they turned out to be complements, although they were hardly planned as such. On a project by project basis, with each project of grand scale and logistical complexity, the PWA represented efficiency in the allocation of large quanta of capital: a model for the future. Given the overriding priority of getting men off relief and into work, the WPA demonstrated effective response to urgent need.

In fashioning any comprehensive response to climate change, President Biden will need to avoid sacrificing effectiveness in pursuit of efficiency, especially as Republican opposition is likely to fixate on programs they oppose in principle as wasteful boondoggles in practice. Yet effective response to climate change will necessarily include grand projects of transformational infrastructure, where manifestly wasteful inefficiency may threaten to undermine support for the mission itself. The next New Deal will need both its PWA and its WPA.

Today: Response to the Corona virus to date provides an illustrative cross-cutting chronicle of failure and success:

- First, failure to orchestrate access to key supplies – masks, ventilators - generated a fiasco of competitive bidding by state governments and amongst federal agencies as President Trump sought to deny a national responsibility that the presidential election demonstrated he could not evade.
- But then the "Warp Speed" program of vaccine development combined efficiency and effectiveness. Multiple parallel projects were funded by pre-production procurement contracts as well as R&D grants and covered the spectrum from traditional approaches to the innovative mRNA technologies deployed by Pfizer/BioNTech and Moderna.
- Third, however, delivery of vaccines into arms reverted to the same fragmented, inefficient and ineffective process that characterized the first months of the pandemic until the new Administration brought some coherent rigor to the task.
- Throughout, the diverse array of "non-pharmaceutical" regulations and guidelines across the American landscape – and opposition thereto - confirmed that the pandemic response would express, not override, political polarization.

Even in the absence of the political polarization that has infected American government, fashioning programs that appropriately balance between efficiency and effectiveness would be hard. Yet the difficulty may be somewhat eased because, when it comes to climate change, it appears that the public is ahead of many politicians.[17]Of the sample polled by a consortium of Yale and George Mason Universities, 75% support rejoining the Paris Agreement, 66% say developing clean energy sources should be a high or very high federal priority; 55-82% support a broad range of regulatory and tax initiatives to encourage reduction in carbon-generating production and consumption.

On every subject, the partisan split between Democrats and Republicans is visible. As with the American Rescue Plan, Biden's appeals to bipartisanship are likely to resonate more outside than inside Washington. And it is suggestive that 66% of those polled "support the Green New Deal," although understandably at this stage "only 18% say they have heard 'a lot' about it.

In 1933, evidence of crisis was unavoidable even for those most insulated by wealth: the Dow Jones Index had declined by 88% from its 1929 high; Hoovervilles of the homeless were found in public parks across the nation's cities; and the banks were closing everywhere. The mandate for action was manifest. Today, building and maintaining the mandate will be an essential element of all responsive initiatives. What will be comparable to the New Deal is the wide range of programs of varying degrees of relevance to the multiple missions facing the Biden Administration post-pandemic.

Princeton University has recently published a comprehensive agenda for achieving "Net-Zero America" by 2050.[18] The report presents an array of programs under 6 headings:

- *End-use energy efficiency and electrification*
- *Clean electricity: wind & solar generation, transmission, firm power*
- *Bioenergy and other zero-carbon fuels and feedstocks*
- *CO_2 capture, utilization, and storage*
- *Reduced non-CO_2 emissions*
- *Enhanced land sinks*

Of these, some call out for the sort of meticulous planning and careful implementation that characterized the PWA's grand projects. Such will be the case with the necessary requirement to expand and extend and harden electricity grids nationally (even in Texas) and to deploy software to manage intermittent sources of electricity. But with other initiatives, especially when they concern the gains available from mass electrification at the residential and retail level, effectiveness should dominate efficiency.

One example of the latter, referenced in the Princeton Report, is the plan for "Rewiring America" conceived by Saul Griffith and his colleagues: to bring electrification to American households funded by subsidized credit.[19] Using electricity alone for heating, cooking, and transportation would not only contribute massively to the Net-Zero goal. The process of universal electrification would generate millions of "green jobs" and yield significant reductions in the cost of living. But the very distributed nature of the program – like the WPA – is bound to generate some degree of waste: unrepaid loans, faulty installations. Public tolerance of such necessary inefficiency will turn on broad public acceptance of the mission.

One example of an initiative that can serve all three missions would directly draw on a first New Deal model. Then, the Rural Electrification Administration brought electricity to Americans ignored by the public utilities as uneconomic to serve. Today, the "digital divide" reveals an inverse correlation between income and access to broadband internet that intersects the urban rural divide.[20] When the pandemic closed schools across the country, the impact of the Digital Divide on access to education and prospective life chances was devastating. At the same time, the positive effect of virtual working and meeting on carbon-generating travel adds to the case for a "Broadband Access Administration" that would serve all three missions.

The Princeton Report correctly recognizes the need for frontier innovation of critical technologies. Two examples are grid-scale energy storage and carbon capture and sequestration. Here the history of the American innovation economy offers a compelling model. The US Defense Department's support for all the emergent technologies that combined to make the Digital Revolution was not limited to funding R&D. It included programs of procurement – of computers, semiconductors, software – before they were cheap and reliable enough for the commercial markets. The American state pulled the suppliers down the learning curve, preferentially favoring young, entrepreneurial companies like Texas Instruments and Intel over the established giant incumbents, IBM and ATT. This was the model implicitly and effectively followed by Project Warp Speed.

There is another opportunity for the Biden Administration to learn from the Obama Administration's American recovery and Reinvestment Act. Not only is that "stimulus bill" now recognized as having been sub-scale. But the "green" elements buried within it were misconceived. The Act extended nine-figure loan guarantees to a set of GreenTech ventures. One of them was Tesla, which paid off its loans from the massive private funding that Elon Musk subsequently mobilized. Two others, sadly, were Solyndra in solar panels and A123 in advanced battery technology. Both went bust in highly visible fashion. Procurement contracts to follow R&D grants were the available alternatives, against which they might have been able to secure conventional venture capital and incidentally avoid political embarrassment if they nonetheless failed.

One strategic issue will confront the President Biden in more nuanced and complex fashion than that which faced FDR: go it alone or collaborate. In 1933, international collaboration would have meant freezing the American state in the face of calamity, even while protectionist programs of national economic defense were proliferating globally: from the UK's abandonment of free trade in favor of Imperial Preference to Nazi Germany's autarchic determination to escape from the Versailles Treaty.

The choice is more complex today, not only because climate change is existentially global, as symbolically acknowledged by Biden's return to the Paris Agreement. At the practical level of implementation, forty years of globalization has left the US bereft of the high-tech manufacturing base that had been constructed over the previous forty years. The combination of free-trade political economics and shareholder-maximization financial economics made abandonment of that strategic resource both economically logical and politically acceptable. Doubling down in strategic opposition to China's rise, therefore, has costs that go to the heart of an effective response to climate change.

To begin with, China generates 29% of the world's annual production of CO_2; the US follows with 16%. No global response to the global problem can leave out either. Beyond that fact, a recent paper in *Science* magazine asserts an obvious hypothesis:

Meeting the goals of the Paris Agreement will require net zero greenhouse emissions by 2050 and substantial reductions before then. It will also require collaboration with China, which has emerged as the global leader in the mass production of low-carbon energy technologies (LCETs). In part because of China's investments in manufacturing, the LCETs required to meet climate targets have become increasingly cost-competitive with fossil fuel sources.[21]

As the authors acknowledge, "some attribute China's rapid rise in LCET sectors to unfair industrial policies—such as forced technology transfer requirements, massive subsidies, and outright intellectual property (IP) theft." Pragmatically, nonetheless, we are where we are.

A wise man once said that political leadership resides in fashioning third alternatives to seemingly intractable dilemmas. Such alternatives may exist on each side. Necessarily inefficient US investments aimed at rebuilding at home the capacity that now exists in China may well prove the effective game theoretic approach towards strategic collaboration. It will likely be matched by China's equally inefficient determination to reach the frontier in semiconductor design and fabrication in order to reduce its strategic dependence on the US.

CONCLUSION

Saikat Chakrabarti was the co-author of the plan for a "Green New Deal" brought to public attention by Rep. Alexandria Ocasio-Cortez. He has summarized the shared purpose of the initiators:

(1) Create a plan that Democratic presidential candidates would have to respond to, creating pressure on them to have a race to the top against each other on climate proposals. We aimed to have an order of magnitude increase in the ambition of climate proposals being put out by presidential candidates and, through that, dramatically change the scale of what would be "politically acceptable."

(2) Introduce (but really reintroduce) a new approach to solving climate change that didn't pit jobs against climate, but made the project of solving climate change *the same* as growing, upgrading and developing our economy, creating millions of high wage jobs in the process.[22]

The tactical political initiative worked: through the presidential primaries that candidate Biden wound up dominating climate change gained traction as a salient issue. The central strategic insight is more remarkable and resonates with FDR's rejection of Keynes' advice to separate explicitly Recovery from Reform. Given the intensely conflicted state of the American political economy today, it reaches beyond the terms set by Chakrabarti. Any opportunity to serve the two missions that overlap in political space with response to climate change – reducing inequality and pursuing racial justice – may only be addressed by implementing the broad and inclusive agenda of investment and employment that response to climate change legitimizes.

Whether it is called "Build Back Better" or a "Green Industrial Policy" or, indeed, a Green New Deal, it is imperative to reject the false dichotomy of "jobs against climate." However it is branded, if response to climate change is truly to renew the grand promise and the meaningful – if incomplete - achievements of the first New Deal, it will do so by addressing the cumulative inequities that have reached intolerable levels of social and cultural and political stress. Somehow, President Biden seems to have intuited this simple, profound truth. Without any doubt, efforts to implement that agenda will be contested every step of the way and not a few will fail. But as FDR put it almost 90 years ago, "above all try."

NOTES

[1] E. Janeway, *The Struggle for Survival: A Chronical of Economic Mobilization in World War II* (Weybright & Talley, New York: 1968 [1951]), p. 276.

[2] To scale all numbers of Federal expenditures, note that GDP in 1929 approximated $100 billion and barely $60 billion in 1932: roughly half the decline due to real economic contraction and half to price deflation. US GDP in 2020 was $21 trillion, 350 times 1933: so $3.5 billion in 1933 represents some $1.2 trillion today.

[3] T. H. Watkins, *Righteous Pilgrim: The Life and Times of Harold L. Ickes, 1874-1952*(Henry Holt, New York: 1990), p. 368-9.

[4] I. Katznelson, *Fear Itself: The New Deal and The Origins of Our Time* (Norton, New York: 2013) is the definitive account of the New Deal seen through the lens of race.

[5] M. Lewis, *The Fifth Risk* (Norton, New York: 2018).

[6] M. Stoller, "Keep McKinsey Away from Biden's Infrastructure Push," *Big*, April 5, 2021

[7] J. Mervis, "'Very disappointed.' Trump's science adviser has left U.S. researchers wanting more," *Science*, October 13, 2020.

[8] B. Eichengreen, *Golden Fetters: The Gold Standard and the Great Depression 1919-1939* (Oxford University Press: 1990)

[9] The full text of Keynes' letter maybe found here: http://la.utexas.edu/users/hcleaver/368/368KeynesOpenLetFDRtable.pdf

[10] For a discussion of Keynes' efforts see W. H. Janeway, *Doing Capitalism in the Innovation Economy* (Cambridge University Press: 2018), pp. 268-80 and R. Skidelsky, *John Maynard Keynes: The Economist as Savior 1920-1937* (Macmillan, London: 1992).

[11] See Hess, Jerry, "Oral History Interview with Leon H. Keyserling," Harry S Truman Library, May 3, 1971. (Available at http://www.trumanlibrary.org/oralhist/keyserl1.htm; retrieved January 29, 2013). Swope's plan did not sanction collective bargaining but did call for employer-funded health and unemployment insurance and pensions.

[12] A. J. Badger, *The New Deal: The Depression Years 1933-1940* (Ivan R. Dee, Chicago: 2002), pp. 80-2, 83-94.

[13] J. Stiglitz, "Addressing Climate Change through Price and non-Price Interventions," NBER Working Paper 25939, June 2019, p. 6.

[14] Watkins, *Pilgrim*, p. 372.

[15] Badger, *New Deal*, p. 83.

[16] *The SecretDiary of Harold L. Ickes: The First Thousand Days, 1933-1936* (Simon & Schuster, New York: 1954), p, 331.

[17] "Politics and Global Warming," December 2020, a Report by the Yale Program on Climate Change Communication and the George Mason University Center for Climate Change Communication, available at https://climatecommunication.yale.edu/wp-content/uploads/2021/01/politics-global-warming-december-2020b.pdf

[18] Andlinger Center for Energy and the Environment, Princeton University and Carbon Mitigation Initiative, High Meadows Environmental Institute, "Net-Zero America: Potential Pathways, Infrastructure and Impacts," available at https://acee.princeton.edu/rapidswitch/projects/net-zero-america-project/ .

[19] S. Griffith with S. Calish and L. Fraser, "Rewiring America," July 2020, available at https://www.rewiringamerica.org/

[20] J. Winslow, "America's Digital Divide," Pew Trust Magazine, July 26, 2019, available at https://www.pewtrusts.org/en/trust/archive/summer-2019/americas-digital-divide

[21] J. Helverston and Nahm, J., "China's Key Role in Scaling Low-Carbon Energy Technologies," *Science*, 15 Nov 2019. Vol. 366, Issue 6467, pp. 794-796

[22] Noah Smith, "Interview: Saikat Chakrabarti, creator of the Green New Deal," February 27, 2021, available at https://noahpinion.substack.com/p/interview-saikat-chakrabarti-creator