Creative approaches to financing investment in public assets and the private sector abound throughout American history. The New Deal, the CARES Act and other legislation have made use of government corporations, equity purchases and loan guarantees to generate durable and appreciating public assets.

Executive Summary

In order for policy to operate on the scale necessary to fix our failing infrastructure and secure prosperity for American workers, we need to ask pointed questions about how best to finance these goals, given the present political and economic environment. **Large conditional grants are subject to legal vulnerabilities and create unpalatable CBO scores.** However, more creative approaches to financing investment in public assets and the private sector abound throughout American history. The New Deal, the CARES Act and other legislation have made use of government corporations, equity purchases and loan guarantees to generate durable and appreciating public assets. In the present political environment, we would do well to remember their examples.

While many of the existing proposals for both the Bipartisan Infrastructure Framework and Reconciliation process fail to capitalize on these creative and efficacious methods, certain of them chart a clear path forward. The Industrial Finance Corporation, introduced by Senator Coons’ office, puts these novel financing capabilities front and center.
# Table of Contents

- **Introduction** .......................................................................................................................... 3
- **A Case Study: The Tennessee Valley Authority** ..................................................................... 4
- **The Government Can Finance These Assets Creatively and Profitably — with Equity and Debt Investments** ............................................................................................................. 6
- **Creative Financing Minimizes CBO Scores** ......................................................................... 10
- **Manufacturing, Climate Change & Industrial Policy** .............................................................. 11
- **The Industrial Finance Corporation** ...................................................................................... 13
- **Conclusion** .............................................................................................................................. 14
- **References** ............................................................................................................................... 15
Introduction

Now that the Bipartisan Infrastructure Framework (BIF) has passed the Senate, attention has turned to the reconciliation bill. With a 3-vote house majority, the Democrats have a difficult line to walk moving forward. A group of moderates has demanded that the House pass the BIF now, while progressives demand that the BIF only move forward once the reconciliation bill has passed. These demands, coupled with unique rules of reconciliation, necessitate an innovative approach to "pay-fors." These pay-fors are assumed to be basically "extractive," in that the goal is for the government to take as much money out of the economy as the reconciliation bill puts in. Extractive pay-fors are politically difficult and stand to reduce the macroeconomic boost provided by the reconciliation bill. However, there is another path forward. History — particularly the legacy of Franklin Delano Roosevelt — shows that managing government income is not the only way to manage the government's balance sheet over the medium and long term. Instead, lawmakers can intervene directly on the asset side, by creating new public assets that appreciate over time, avoiding the negative impulse of higher taxes before the effects of new spending can take effect.

The BIF has crossed an important threshold by legitimizing more creative “pay-for” mechanisms. The end of negotiations even saw Sen. Mitt Romney defending this approach against CBO interpretation. Throughout the process, Republicans have alluded to and endorsed the use of alternative financing mechanisms to help “pay for” the deal. At one point, Sen. Portman said “… I do think there are very creative ways to pay for infrastructure that wouldn't be available for other expenses. As an example... let's use the power of the federal government to borrow at lower rates to be able to leverage private sector funding”.

The Biden administration can finance the American Jobs Plan through the creation of durable public assets. President Biden has repeatedly signaled that he wants to go beyond a COVID-19 recovery by achieving a long-overdue restructuring of the American economy. He intends to use the American Jobs Plan (AJP) and American Families Plan (AFP) to cement his legacy in the manner of FDR. However, to truly embody this legacy, President Biden must remember not only what the New Deal achieved, but how FDR achieved it. FDR used exactly the kinds of creative entities described above to fundamentally transform Americans’ expectations of what their government can offer.
Policymakers can avoid budgetary and deficit issues by using certain legal and administrative entities to invest in new public assets. These assets, if productive, can appreciate over time and earn the government more value than one-time “extractive” pay-fors. While this does not explicitly replace government income, the appreciation of publicly owned assets solves the same putative problem that extractive approaches claim to: ensuring government solvency. These assets can take a variety of forms: the formation of government corporations being one important example. By organizing infrastructure investments this way, they can support a higher standard of living while avoiding adverse judgements by the CBO. Until the CBO scoring procedure is meaningfully reformed, these flexible financing vehicles and equity investments could be used instead of grants.

While the USICA and other bills could provide much-needed funding to enhance our industrial capacity, they represent a missed opportunity to utilize creative financing structures in the creation of public assets. The recently introduced Industrial Finance Corporation, by contrast, makes full use of the autonomy provided by the form of a government corporation. However, explaining the full scope of those powers requires a crash course in the history of similar approaches to public policy.

A Case Study: The Tennessee Valley Authority

The Tennessee Valley Authority (“TVA”) shows how Congress and the administration should be thinking about infrastructure, finance, and the creation of public assets. FDR arrived at the White House committed not only to overcoming the Great Depression, but also to reforming the basic economic structures of American society. In its success, the TVA remains one of his most enduring legacies.

The enacting legislation provided the TVA with clear goals. It would: “improve the navigability and to provide for the flood control of the Tennessee River; to provide for reforestation and the proper use of marginal lands in the Tennessee Valley; to provide for the agricultural and industrial development of said valley; to provide for the national defense by the creation of a corporation for the operation of Government properties at and near Muscle Shoals in the State of Alabama, and for other purposes.” In practice, this meant using industrial and agricultural development — especially dams and mass electrification — to transform one of the country’s most poverty stricken and least developed regions.
By chartering as a federal corporation, the TVA was able to capture significant regulatory benefits and advantages in terms of corporation-like autonomy in operations and decision-making. President Eisenhower offered the most succinct case for using this type of federal corporation structure: administration of governmental programs that “are predominantly of a business nature, produce revenue..., involve business-type transactions, ... require greater flexibility than customary appropriations.” With the power for the President to appoint officials, and the corporation’s ability to set rates and user fees, the federal government retained strong authority to prevent the TVA from prioritizing profits above policy goals.

Today, the TVA is an extremely valuable public asset. Some estimates⁴ value the TVA at $30–40 billion, even though the total Congressional appropriations since its creation amounted to just $5 billion (in 2013 dollars). The corporation is now entirely self-financing. As EPI put it⁵ in 2014, “In short, all of the TVA’s functions, both power and nonpower, are today funded almost entirely through the sale of electricity and other earned revenues.” This compounding helps show how the creation of new assets, over the long term, contributes more to the federal government’s balance sheet than a one-off tax hike.

Just a few months ago, investment firm Lazard extolled the benefits⁶ that the TVA continues to provide:

“TVA has been able to carry out its broader mission with respect to energy, environment and economic development under the public power model, including as measured by TVA’s performance vs. its forecast set forth in the FY14 Plan. TVA’s rate-setting authority and statutory protections that balance service area restrictions are key features of the model. TVA’s structural advantages (e.g., tax-advantaged debt, lack of a required equity return, etc.) allow TVA to charge lower rates than it would as an investor-owned utility. Additionally, TVA is positioned to serve and protect the communities and natural resources of the Tennessee Valley in ways that private enterprises may not be equipped or incentivized to do (e.g., TVA’s expansive economic stewardship activities, flood protection programs and recreational initiatives). TVA’s performance in recent years and current positioning suggest that the public power model is a reasonable approach to support TVA’s mission. Lazard believes that its previous conclusions in the 2014 Strategic Assessment with respect to the benefits and considerations of alternative business models vs. the public power model are still valid today.”
Of particular interest is the fact that the total appropriations were supplemented throughout by recourse to private debt markets. The TVA, like other New Deal initiatives, was partially financed by bond issuance. This debt is handled separately from Treasury debt for the purposes of calculation, but like debt issued by other government-sponsored enterprises (GSEs), it would be eligible for purchase as part of central bank open-market operations and is thereby perceived by financial markets to be of lower credit and liquidity risk. The enacting legislation authorized the TVA to raise up to $30,000,000 in private debt (specifically through bond issues) to finance its operations. While fees for services provided some revenue, debt financing was crucial in allowing the corporation to make the kinds of investments necessary for the TVA to deliver on its public policy goals.

Ultimately, the TVA has improved the standard of living in the Tennessee Valley. Without having received a single congressional appropriation since the late 1950s, the TVA provides affordable electricity and other services to over 10 million people across seven states.

It is controversial in some quarters to claim that public investments “pay for themselves,” but the private debt-financed TVA has demonstrably brought in more value for the American government and its people than conventional “pay-fors” would have. Over 90 years later that asset has appreciated to a value of $40 billion, and is entirely self-financing through user fees and other sources of revenue. All this while providing a higher standard of living for millions across the Tennessee Valley. That’s a model for the Biden administration to follow.

The Government Can Finance These Assets Creatively and Profitably — with Equity and Debt Investments

While the TVA owns valuable physical assets that can easily be identified as infrastructure, this is not the only approach to creating public assets. As in the New Deal, equity and debt investments have a clear role to play as well.

The Reconstruction Finance Corporation (RFC) was a public asset similar to the TVA, but more importantly, it increased its value through the appreciation of its own assets.
Like the TVA, the RFC had authority to raise debt from the private markets — which it utilized,\(^8\) raising billions\(^9\) from the public. Though that might seem like a high debt burden for any corporation, under the leadership of Jesse Jones, it paid off. As historian Louis Hyman wrote\(^10\) in *The Atlantic*:

“…with Jones at the helm, overall, it made money. The RFC developed different projects that turned cutting-edge technology into self-sustaining commercial enterprises. Nervous businessmen said it couldn’t be done. Jones — and the rest of the RFC agencies — did it anyway. These financial lessons... [are] worth dredging up. They provide many examples of how to harness private capital for public good, and help promote free enterprise, entrepreneurship, and technological innovation.”

And like the TVA, the RFC succeeded in increasing economic capacity and providing a higher standard of living for the American people. When FDR took office, thousands of banks had failed, and the collapse of the entire banking system was imminent. He and his RFC head, Jesse Jones, zealously acted to stabilize the system through the purchase of preferred common shares in the nation's banks. Calling a bank holiday, FDR and Congress worked together to pass the Emergency Banking Act, which allowed the RFC to take equity stakes.

As John Cassidy at the New Yorker described the situation, “the switch from loans to equity gave taxpayers a stake in the enterprises they were bailing out.” FDR’s stabilization of the banking system was arguably the most important outcome of his first 100 days, and it was made possible by the federal government taking equity stakes, rather than providing loans. All in all, the federal government injected nearly 1.7 billion of capital into the banking system, and earned a tidy profit.

The control over business decisions that these equity stakes conferred gave the administration another tool with which to achieve their public policy aims.
“In several situations, the RFC used this control to replace officers and significantly alter the business practices of the institution. The earliest and most prominent intervention involved Continental Illinois National Bank of Chicago. Agreement on selecting a new chair was a precondition of the investment in Continental Illinois. However, the current directors did not approve of the RFC’s choice and visited Washington to voice their objections. They finally acquiesced after eight other directors were replaced with RFC appointees.

A similar situation played out with the Union Trust Company of Cleveland. The RFC agreed to finance the reorganization of Union Trust by providing a loan of $35,000,000 to liquefy and write off the poor assets of the old bank and a purchase of $10,000,000 of preferred stock to guarantee the new bank’s capital structure. But these were contingent upon “… the right of the RFC to select the new bank’s officers and the ability of those officers to raise $10,000,000 more in common stock,” from the private market (Olson 1972, 233). Other prominent banks were assured that the situations at Continental Illinois and Union Trust were due to a combination of unusual circumstances, and would not be repeated without due cause, but the threat of such control kept many banks from availing themselves of the resources offered by the RFC for at least the first nine months of the program’s existence.”

The structure of the RFC afforded the level of flexibility and discretion required when engaging with these types of investments. Reliance on investment-style due diligence — rather than the drawn-out bureaucratic application processes and its attendant regulatory clarifications — allowed the RFC to operate at the speed of the market. Binding conditionality associated with grant-making necessarily leaves substantial room for long, drawn-out litigation (we’re getting a preview with the American Rescue Plan’s state tax provision11). FDR knew this, and in short order created the legal authority to swiftly and flexibly recapitalize the banking system while avoiding these extra obstacles.

Even without utilizing voting rights (or if Congress deemed federal interference too meddlesome, and only authorized passive investments) — the government can still impose restrictions on the purchase of equity stakes in order to ensure its investments create favorable policy outcomes.
Consider a recent example. Under the CARES Act, the Treasury Department provided equity injections to YRC Worldwide, Inc., a trucking company that was deemed “critical to national security.” Treasury received a 29.6% equity stake in YRC after providing a $700 million loan, a stake more valuable now than the original credit provided.

The capital provided was attached with conditions\(^\text{12}\) that YRC maintain its employment level, that they not engage in share buybacks until one year after the loan is repaid, and that they cap their executive compensation at the 2019 level. Ultimately, the government will earn a tidy profit while achieving its policy goals, namely steady employment and macroeconomic stabilization.

Earlier examples show that the upside of these equity investments can be enormous even without a generalized economic downturn. In 1979, the car giant Chrysler faced a crisis — riddled with debt and unable to compete with Japanese automakers, the corporation was on the brink of failure, threatening hundreds of thousands of jobs, and one of America’s most prized companies. Many argued the corporation should fail, saying it was a natural outcome of a capitalist society, and that the government shouldn’t bail out poor-performing companies.

The Carter administration felt differently, and worked with Congress to allow the Treasury Department to guarantee up to $1.5 billion in bank loans and an “equity kicker” of 14.4 million stock warrants. These allowed the Treasury to purchase stocks at a discounted price in the future, and then sell those stocks at a profit once the company had recovered. Though Chrysler protested and sought to prevent exercise of the kicker, Rep. William Green, a Republican from Manhattan (yes, they once existed), provided the justification, stating, “the equity ‘kicker’ that Congress insisted on is entirely consistent with the high risk; there is no reason for surrendering a penny of it… when a private entity provides a service and takes an economic risk, it demands and receives financial benefits. Why should the taxpayers, who provided a vital service and took a great gamble, be denied the same right?”

Ultimately, Chrysler repaid the $1.2 billion in guaranteed loans seven years ahead of schedule, and the government profited nearly $300 million from the equity kicker. Beyond the financial gains, there were significant social outcomes. Lee A. Iacocca, the Chrysler chairman and supersalesman, claimed that the package saved 600,000 jobs. It’s impossible to determine additionally how many jobs would have been threatened by the systemic effects, not to mention the cascading possibility of lower wages and worse labor markets. Over a seven-year time horizon, the USG saved hundreds of thousands of jobs and pushed a company back to a path of profitability at no cost to the government.
Creative Financing Minimizes CBO Scores

The CBO is well-known for viewing new spending in a harsh light, whether through its assumptions about interest rates, its model of “potential output,” or the avidity with which it demands new taxes accompany new spending. While FDR did not have to contend with an adversarial CBO, his techniques offer an example of how to minimize the scored cost of new spending. When the CARES Act passed, it was the largest emergency injection of relief in the history of the United States. Though it included over $2 trillion in fiscal assistance and an additional $4.5 trillion in potential credit assistance, the CBO scored the 10-year deficit increase at just $1.7 trillion. How did the CARES Act get more fiscal bang for its CBO buck?

The answer lies in the $454 billion appropriation to the Treasury Department to “make ... investments in, programs or facilities established by the [Federal Reserve] for the purpose of providing liquidity to the financial system that supports lending to eligible businesses, states, or municipalities.”

Per the Federal Credit Reform Act (FCRA), these programs are scored on a “net-present-value” basis. In essence, the expected cash flows are the “public asset” that pays for the overall program. And in CBO’s assessment, there was “a high probability that the lending will result in a small net profit for the government, thus reducing the deficit,” but also a “small probability that the provisions could result in a very large loss — an outcome that would significantly increase the deficit.” All in all, the CBO came to the following conclusion:

“Although the act provides financial assistance totaling more than $2 trillion, the projected cost is less than that because some of that assistance is in the form of loan guarantees, which are not estimated to have a net effect on the budget. In particular, the act authorizes the Secretary of the Treasury to provide up to $454 billion to fund emergency lending facilities established by the Board of Governors of the Federal Reserve System. Because the income and costs stemming from that lending are expected to roughly offset each other, CBO estimates no deficit effect from that provision.”
The asset created by the government’s provision of fiscal assistance pays for itself. The Treasury took an equity stake in Special Purpose Vehicles (SPVs), which purchased loans and securities. The profits of those investments then accrued to the owner of the SPV: the federal government. Although not every one of these mechanisms will have a zero CBO score, the backstop and asset appreciation model provides a path to building self-sustaining assets that score deficit-neutral beyond the 10-year reconciliation period. The ability to structure deficit-neutral bills in this way is critical to building consensus and avoiding the opprobrium of the CBO.

Now, what does all of this mean for the current debate? It’s simple: financing our goals in infrastructure and manufacturing with creative, asset-based pay-fors is politically easier and creates more long term value for the American people.

**Manufacturing, Climate Change & Industrial Policy**

Consider the proposal to revive domestic production of semiconductors as an example. Investing in a resilient semiconductor supply chain is both urgent and a core plank of the American Jobs Plan. However, it is important to remember that these kinds of industrial policy approaches have positive impacts far beyond their target industry, and benefit a wide array of domestic manufacturers.

From the American Jobs Plan, under the goal to increase access to capital for domestic manufacturers:

“He also will call for the creation of a new financing program to support debt and equity investments for manufacturing to strengthen the resilience of America’s supply chains.”

The plan also included the following:

“Strengthen manufacturing supply chains for critical goods. President Biden believes we must produce, here at home, the technologies and goods that meet today’s challenges and seize tomorrow’s opportunities. President Biden is calling on Congress to invest $50 billion to create a new office at the Department of Commerce dedicated to monitoring domestic industrial capacity and funding investments to support production of critical goods. The President also is calling on Congress to invest $50 billion in semiconductor manufacturing and research, as called for in the bipartisan CHIPS Act.”
Traditionally, policy has focused on spurring research and development. Today’s infrastructure plan — in the form of the Endless Frontiers Act/United States Innovation and Competition Act — offers support for R&D as well as funding for real investment in domestic manufacturing. Some argue that the federal government should not extend billions in “corporate welfare” to private companies, but this is why we must consider flexible financing alternatives like credit facilities or equity investments. These approaches reduce the overall price tag of the bill, create a more responsive accountability mechanism than litigation alone, and help ensure the federal government profits without sacrificing any public policy goals.

The version of USICA that passed the Senate still follows the vulnerable grant-based model. Though grants should drive real semiconductor investment, the government should stand to enjoy the financial upside that comes with active investment. The current grant-based approach worsens USICA’s CBO score for little benefit. As it stands, the provision would cost the government $39 billion. Were the same investments made through a new government corporation and provided through flexible financing vehicles and equity investments, they could pay for themselves over a reasonable time horizon and markedly improve the bill’s CBO score.

If the USICA goes forward as currently legislated, it will provide a much-needed investment in semiconductor manufacturing. However, the present bill represents a lost opportunity to chart a different path forward for private-sector investment by the federal government. President Biden and Congress should consider other ways of folding the industrial policy into the current package.
The Industrial Finance Corporation

Other approaches capitalize on this opportunity to change how infrastructure spending is funded and scored. Last week, Senator Chris Coons (alongside Sens. Warner, Klobuchar, Bennet, Peters, Van Hollen and Warnock) introduced S. 2662, the Industrial Finance Corporation. It’s an excellent example of the model we have been laying out. The legislation creates a public asset (in this case, a government corporation like the RFC or TVA) to support public goals: the development of critical supply chains, the revival of our manufacturing base, and leadership of commercialization at the technological frontier. The IFC even relies on a similar financing model to the TVA: a one-time appropriation of $50bn that would be used to leverage up to $500bn more in federally-directed investment. How exactly could that work?

The $50bn appropriated by Congress would go into the IFC’s corporate capital account, but not be itself used for the corporation’s activities. The corporation would raise private capital from the debt markets, up to a statutory limit of $500bn. The capital account would then pay the corporation’s obligations — like interest payments — but the corporation's activities would be financed by debt capital.

Those activities themselves would generate revenue and likely add value for the federal government. The corporation would have the authority to engage in lending activities, including creating facilities like the CARES facilities, make equity investments, and provide purchase guarantees to companies. This mix of authorities are important, as the corporation could identify the right vehicle for each intervention, as demonstrated by the use cases highlighted by Senator Coons. These activities would, given the aforementioned history, generate return above the investment. Unlike many federal credit programs, the bill allows those proceeds to be returned to the corporate capital account where they can support further activities. While the initial liability cap is $500bn, should the corporate capital account achieve a balance of more than the $50bn appropriation, the cap increases to 10x the present balance.

This self-sustaining funding structure helps ensure the IFC can deliver a higher standard of living for the American people. Delivering the investment our country needs — and which the private sector is reluctant to provide — will revitalize our manufacturing base and could create millions of jobs across the nation, ensure the resilience of our supply chains and help prevent inflation. Perhaps most importantly, the Industrial Finance Corporation would facilitate and supplement the economic impact of AJP’s vital climate investments by modernizing supply chains and industrial processes.
Conclusion

There are numerous challenges involved in navigating the upcoming reconciliation bill. Many priorities, particularly the social assistance in the American Families Plan, will need to be paid for in order to meet the requirements of reconciliation. But there are numerous opportunities within the American Jobs Plan to create public assets and use creative financing mechanisms to pay for them.

The IFC is just one model of how President Biden and Congress should prioritize and “pay-for” priorities in the upcoming reconciliation bill. An infrastructure bank, perhaps modeled on the TVA, could be another. That the bipartisan infrastructure bank was not included in the Bipartisan Infrastructure Framework (and bill) is an opportunity for the Democrats to include it in their upcoming bill. Either way, it’s time to move beyond mere income extraction, towards the creation of public assets to deliver a higher standard of living for the American people.
References

2. https://twitter.com/mittromney/status/1423402831395049477
7. https://www.tva.com/about-tva#:--text=The%2010%2C000%20employees%20of%20TVA,more%20about%20our%20service%20commitment.
14. https://employamerica.medium.com/potential-output-little-explanation-for-a-big-number-50a06e3a6ce9