THE NEXT SYSTEM PROJECT

POLICY BRIEF

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REBUILDING AMERICA'S INFRASTRUCTURE

How to Save $1 Trillion Without Increasing the Deficit, Causing Inflation, or Raising Taxes

March 2017

The $1 trillion public-private infrastructure plan proposed by the Trump Administration would cost an additional $1 trillion-plus in financing and user fees over a ten-year period. The total cost could be cut literally in half by funding the plan through the government's own depository bank. Better yet, the project could be free, funded with an issue of sovereign currency from the Federal Reserve or the U.S. Treasury. This policy brief lays out a variety of funding options that would not increase taxes or the federal debt, would not trigger hyperinflation, would not result in massive privatization of public assets, and would be feasible legislatively. There is a powerful historical precedent for such an approach: in constructing the transcontinental railroad, Abraham Lincoln doubled the money supply, lent the money for infrastructure, and made a 60 percent return. That is how a sovereign nation rebuilds its infrastructure!

Our infrastructure is crumbling, and has been for years. In their latest quadrennial report card on the state of America's airports, bridges, tunnels, roads, and other infrastructure, the American Society of Civil Engineers (ASCE) awarded the United States a disappointing D+.[1] It is estimated that the nation needs more than $3 trillion in infrastructure over the next decade.[2] President Trump has promised a massive program of rebuilding, something both Democrats and Republicans agree should be done. The roadblock lies in finding the money. A $1 trillion plan unveiled by a group of Senate Democrats in January 2017 would rely on direct federal spending, paid for by closing tax loopholes.[3] But in earlier attempts, this type of funding option has failed to secure support from Republicans in Congress. The $1 trillion Trump infrastructure plan, by contrast, is claimed to be "revenue neutral," increasing neither debt nor taxes. However, the plan as revealed by Trump's economic advisers appears to do this either through public-private partnerships or by outright privatization, imposing high user fees on the citizenry for assets that should be public utilities.

Private equity investment now generates an average return of about 11.8 percent annually on a ten-year basis.[4] Even at simple interest, that puts the cost to the public of financing $1 trillion in infrastructure projects at around $1.18 trillion—more than doubling the cost. As a 2008 Government Accountability Office (GAO) report warned, "there is no 'free' money in public-private partnerships…"[5]

But there is actually "free"—or at least cheap—money to be had elsewhere. Among other alternatives, infrastructure could be funded by the Federal Reserve through a program of "qualitative easing," a variant of the now well-established monetary measure of "quantitative easing" (QE) by which central bank-generated money would circulate in the real economy. This might be implemented through a network of state-level publicly-owned banks funded with low-interest Federal Reserve loans to build infrastructure in their states. To those concerned that such an approach would represent an infringement upon the much-vaunted "independence" of the Federal Reserve, it's worth pointing out that this bridge was already crossed when Congress passed the Fixing America's Surface Transportation (FAST) Act in 2015. FAST required the Federal Reserve to transfer to the Treasury Department everything in excess of $10 billion from its capital surplus. In December 2015, the Federal Reserve complied with the law by transferring an additional $19.3 billion to the Treasury.[6]

Another option would be to set up a federal infrastructure bank as a depository bank, on the model of the state-owned Bank of North Dakota (BND). The conservative state of North Dakota is now funding infrastructure through the BND at a mere 2 percent annually. In 2015, the North Dakota legislature established a BND Infrastructure Loan Fund program that made $150 million in funds available to local communities at a 2 percent fixed interest rate and a term of up to 30 years.[7] The proceeds can be used for the construction of new water and treatment plants, sewer and water lines, transportation infrastructure, and other infrastructure needs to support new growth in local communities.

If President Trump's $1 trillion infrastructure plan were funded at 2 percent over 10 years, the interest tab would come to only $200 billion—nearly $1 trillion less than the $1.18 trillion that would be expected in profit by private equity investors. Not only could residents save $1 trillion on tolls and fees, but they could also save on other taxes, since the 2 percent interest would return to the government, which would own the bank. Interest and other costs of financing, on average, compose around 50 percent of the cost of infrastructure.[8] **That means the cost can be cut nearly in half by funding through the government's own credit-generating bank**.[9] That can also be done with even cheaper sources of funding. How will be discussed below, following a closer look into the public-private options currently on the table.

THE TRILLION DOLLAR PRIVATE EQUITY PLAN

While the precise details of President Trump's plan are not yet known, they are likely to be similar to those put forth in a report released by his economic advisers Wilbur Ross and Peter Navarro in October 2016.[10] The report called for $1 trillion in infrastructure-related spending over ten years, funded largely from private sources. The federal government would provide around $167 billion in tax credits to private investors, who would then make an equity investment in an infrastructure project and borrow the remainder on private bond markets. The plan is supposed to be revenue neutral from the standpoint of the federal government, due to tax credits recouped in the form of increased tax revenue from wages and contractor profits. But the private sector financiers would then pay off their debts (including interest) and turn a profit on the back of user fees (e.g. tolls), higher rates (e.g. water bills), and payments from state governments (e.g. revenue guarantees).

Such public-private partnerships (PPPs) in infrastructure have a checkered history, at best. A 2011 report by the Brookings Institution found that "in practice [PPPs] have been dogged by contract design problems, waste, and unrealistic expectations."[11] One example is the Dulles Greenway, a toll road outside Washington, D.C., nicknamed the "Champagne Highway" due to its extraordinarily high rates and severe underutilization in a region crippled by chronic traffic problems.[12] Local (mostly Republican) officials have tried in vain for years to either force the private owners to lower the toll rates or have the state take the road into public ownership.[13] In 2014, the private operators of the Indiana Toll Road, one of the best-known PPPs, filed for bankruptcy after demand dropped, due at least in part to rising toll rates. Other high-profile PPP bankruptcies have occurred in San Diego, CA; Richmond, VA; and Texas.[14] To mitigate the risk for private investors, some PPP agreements require a "minimum revenue guarantee" (MRG) and/or a "non-compete" clause from the local government. This absurdly limits the public sector's ability to build new roads or improve existing roads, if that needed work would decrease revenues for the private operator. Moreover, when these private operators do go bankrupt, it is taxpayers who are left holding the bag. "In America, unlike the rest of the world, these risks are rarely taken by private investors," writes Randy Salzman, associate editor of *Thinking Highways North America*. "Because Uncle Sam guarantees the bonds, taxpayers end up paying off the notes years after construction is complete… [and] the shell company's bankruptcy again ensures the private partner will not pay back Uncle Sam's already interest-free loan on the project, nor the depreciation it took when it 'struggled' to be viable before 'succumbing' to bankruptcy."[15]

From the continuing outcry over the disastrous 75-year deal the city of Chicago made with private investors regarding the operation of its parking meters to the reversal or prevention of water privatizations in the face of public opposition in multiple jurisdictions, private investment in infrastructure remains highly controversial—and often extremely unpopular with local constituents. In the wake of the Indiana Toll Road Concession Company bankruptcy, transportation policy specialist William J. Mallett stated that it was "just the latest in a series of events that is leading Congress to reassess the role of private investment in transportation infrastructure."[16] Similarly, in their 2015 report *Why Public-Private Partnerships Don't Work*, Public Services International stated that "[E]xperience over the last 15 years shows that PPPs are an expensive and inefficient way of financing infrastructure and divert government spending away from other public services. They conceal public borrowing, while providing long-term state guarantees for profits to private companies."[17] But rather than scaling back public-private partnerships, the plan suggested by President Trump's advisors will massively expand them, magnifying the costs, failures, and limitations already experienced under that approach by states and localities across the country.

AN INFRASTRUCTURE BANK

The president and his team have also reportedly discussed the possibility of an infrastructure bank, but that proposal faces similar hurdles.[18] Again the details of the proposal are as yet unknown, but past conceptions of an infrastructure bank envision a quasi-bank (not a physical, deposit-taking institution) seeded by the federal government (possibly from taxes on the repatriation of offshore corporate profits). The bank would issue bonds, tax credits, and loan guarantees to state and local governments to leverage private sector investment.[19] As with the private equity proposal, an infrastructure bank would rely on public-private partnerships and investors who would be disinclined to invest in projects that did not generate hefty returns. Those returns would again come in the form of tolls, fees, higher rates, and payments from state and local governments.

The infrastructure bank idea has been around for decades but has never been implemented, largely due to concerns over which projects would get funded. Like many existing PPPs, they could be boondoggles that would need rescuing by the public sector when they failed to deliver on inflated use projections. Or the bank might authorize those projects most likely to pay back the loans, ignoring others that may not be moneymakers but are critically necessary for the public and the economy (such as maintenance of existing structures). This is especially problematic given that, with a national infrastructure bank, a wide variety of diverse projects would be competing for funding—e.g. a water treatment facility in a rural area versus a lucrative toll road in a major metropolitan area.

Ronald Klain, the former Obama aide responsible for implementing the American Recovery and Renewal Act, has argued that even with an infrastructure bank as a "sweetener," "the Trump plan would not be a reasonable compromise—acceptance of its huge tax breaks for construction investors and profits for contractors would be a wholesale concession."[20]

THE MAGIC OF LEVERAGE: DEPOSITORY BANKS EXPAND THE MONEY SUPPLY WHEN THEY MAKE LOANS

There is another way to set up a publicly-owned bank. Today's infrastructure banks are basically revolving funds. A dollar invested is a dollar lent, which must return to the bank (with interest) before it can be lent again. A chartered depository bank, on the other hand, can turn a one-dollar investment into ten dollars in loans. It can do this because depository banks actually *create* deposits when they make loans. In fact, the vast majority of the money supply is now created in this way, as economists at the Bank of England have acknowledged. In a widely-noticed March 2014 paper entitled *Money Creation in the Modern Economy*, they wrote:

> The reality of how money is created today differs from the description found in some economics textbooks: Rather than banks receiving deposits when households save and then lending them out, bank lending creates deposits ... Whenever a bank makes a loan, it simultaneously creates a matching deposit in the borrower's bank account, thereby creating new money.[21]

Contrary to a great deal of conventional wisdom, money is not fixed and scarce. It is "elastic": it is created when loans are made and extinguished when they are paid off. The Bank of England report said that private banks now create nearly 97 percent of the money supply. Thus borrowing from banks (rather than the bond market) expands the pool of bank deposits that are officially counted as "money" in M2. This is what the Federal Reserve tried but failed to do with its quantitative easing (QE) policies: stimulate the economy by expanding the bank lending that expands the money supply.

The stellar (and only) model of a publicly-owned depository bank in the United States is the Bank of North Dakota (BND). It holds all of its home state's revenues as deposits by law, acting as a sort of "mini-Fed" for North Dakota. According to reports, the BND is more profitable even than Goldman Sachs, has a better credit rating than J.P. Morgan Chase, and has seen solid profit growth for almost 15 years.[22] In fact, the BND continued to report record profits after two years of oil bust in the state, suggesting that it is highly profitable on its own merits because of its business model.[23] The BND does not pay bonuses, fees, or commissions; has no high paid executives; does not speculate on risky derivatives; does not have multiple branches; does not need to advertise; and does not have private shareholders seeking short-term profits. The profits return to the bank, which distributes them as dividends to the state.

The federal government has massive revenues, which are currently deposited at the Federal Reserve. Arguably, the Fed itself could fund infrastructure without even changing the Federal Reserve Act, as discussed below. But assume the government did set up a separate infrastructure bank chartered as a depository bank. Capitalization could come from Social Security or another public agency that had investment money seeking a good return. Deposits could come from public revenues of various sorts. The bank could make loans equal to ten times capital and 90 percent of deposits, holding back 10 percent in reserve. (It could actually lend more, but for our purposes let's stick to the textbook model.[24]) The deposits could be collateralized cheaply with standby letters of credit from the Federal Home Loan Bank system.[25]

Assume 2 percent loans were made to state and local governments for infrastructure projects, 7 percent were paid as a dividend or interest on capital, and 0.5 percent were paid on deposits (a good return for deposits today). 2 percent x 9 = an 18 percent return, less 7 percent for capital and 4.5 percent for deposits (9 x 0.5 percent) = a 6.5 percent profit for the bank itself—enough to cover loan losses and costs and still leave a profit for the bank. Note that the entire 18 percent would represent profit to public entities, whether on public deposits, the initial capital investment, or the profits actually going to the bank. Meanwhile, state and local governments would be getting their infrastructure loans at 2 percent, saving their citizens from having to pay 12 percent in user fees (the average return expected by private equity[26]). The bank would be a "win-win-win," because the federal government would be cutting out private investors and middlemen and leveraging its own funds for its own public purposes. There is simply no need to hand over wads of cash to rentier finance.

A federal depository banking system could also be set up that takes private rather than public deposits. This could be done through the U.S. Postal Service (USPS), which has post offices in nearly every community—and did in fact provide basic banking services from 1911 to 1967. In 2013, U.S. Senator Bernie Sanders and U.S. Representative Peter DeFazio called for expanding the USPS to include non-postal services (such as banking).[27] A national infrastructure bank could be funded by a system of postal banks, with deposits invested in government securities used to finance infrastructure projects.[28] Besides financing infrastructure, the plan could help save the embattled USPS itself, while providing banking services for the one in four U.S. households that are currently unbanked or under-banked.

BORROWING FROM BANKS INCREASES NET SPENDING AND NET HIRING

There is another advantage to funding through a public banking system. Borrowing from private investors on the bond market or through private equity merely recirculates existing money, transferring it from one pocket to another, without creating the new money needed to fund new production. As investment advisor Paul Kasriel observes, the private investors contributing the bulk of the funding would have to "get the funds either from some entities increasing their saving, that is, by cutting back on their current spending, or by selling other existing assets from their portfolios … [U]nder these circumstances, there would be no net increase in spending on domestically-produced goods and services."[29]

Richard Werner, chair of international banking at the University of Southampton in the United Kingdom, argues that to get much-needed new money into local economies, governments should borrow from banks rather than on bond markets, since banks create the new money necessary to fund new economic activity.[30] Among other advantages, the borrowing rate would be substantially lower. Basel banking regulations give governments the lowest risk-weighting (zero), so they can borrow from banks at the favored-client rate; and the banks will be happy to lend, because with zero risk-weighting they will need no new capital to back the loans. To the objection that banks don't have sufficient money to fund governments, Werner observes:

> That may be true in one sense. But this is true for any loan granted by a bank. Which is why *banks do not lend money, they create it* [emphasis added]: banks are allowed to invent a deposit in the borrower's account (although no new deposit was made by anyone from outside the bank) and since they function as the settlement system of the economy, nobody can tell the difference between these invented deposits and "real" ones.[31]

QUALITATIVE EASING FOR INFRASTRUCTURE

Better still would be to get the needed new money for infrastructure investment interest-free from the central bank.

Timothy Canova, professor of law and public finance at Nova Southeastern University, is an expert in Federal Reserve law and history who was appointed in 2011 by Senator Bernie Sanders to an advisory committee on Federal Reserve reform. He contends that the Fed could capitalize a national infrastructure bank with money generated on its books as "*qualitative* easing"—central bank-generated money that actually gets into the real economy.[32] The Federal Reserve could purchase shares, whether as common stock, preferred stock, or debt, either in a national infrastructure bank or in a system of state-owned banks that funded infrastructure in their states. This could be done without increasing taxes, adding to the federal debt, or inflating prices. (More on that below.)

Could it be done under existing legislation? In 2009, President Obama proposed that the Fed lend directly to cities and states battered by the banking crisis. The proposed municipal bond facility would have been based on the Fed's program to buy commercial paper, which had almost single-handedly propped up the market for short-term corporate borrowing. Investors welcomed the muni bond proposal; but Fed Chairman Bernanke said he lacked the statutory ability to do it. The Fed is limited by statute to buying municipal government debt with maturities of six months or less that is backed by tax or other revenue—a form of debt that makes up less than 2 percent of the overall muni market.[33]

But statutes can be changed; and they *are* changed, routinely, by Congress. If the Fed cannot lend to the states, however, a case can be made that it can lend directly to private companies engaged in infrastructure. This is not a radical idea. It has been done before, and the Dodd-Frank Wall Street Reform and Consumer Protection Act amends the Federal Reserve Act in a way that leaves that possibility open now.

DIRECT FEDERAL RESERVE LOANS FOR INFRASTRUCTURE

In 1934, Section 13(b) was added to the Federal Reserve Act, authorizing the Fed to "make credit available for the purpose of supplying working capital to established industrial and commercial businesses." This long-forgotten section remained in effect for 24 years. According to David Fettig in a 2002 article on the Minneapolis Fed's website called "Lender of More Than Last Resort," 13(b) allowed Federal Reserve banks to make loans directly to any established businesses in their districts, and to share in loans with private lending institutions if the latter assumed 20 percent of the risk. "No limitation was placed on the amount of a single loan."

Fettig wrote that "the Fed was still less than 20 years old and many likely remembered the arguments put forth during the System's founding, when some advocated that the discount window should be open to all comers, not just member banks."

Section 13(b) was eventually repealed, but Fettig argued that the Federal Reserve Act retained enough vestiges of it to allow the Fed to intervene to save a variety of nonbank entities from bankruptcy:

> Section 13(b) may be a memory … but Section 13 paragraph 3 … is alive and well in the Federal Reserve Act. … [T]his amendment allows, "in unusual and exigent circumstances," a Reserve bank to advance credit to individuals, partnerships and corporations that are not depository institutions. [34]

In 2008, the Fed bailed out investment company Bear Stearns and insurer A.I.G., neither of which was a bank. Bear Stearns received almost $1 trillion in short-term loans, with interest rates as low as 0.5 percent. The Fed also made loans to other corporations, including GE, McDonald's, and Verizon.[35]

But Section 13(3) was applied selectively. The recipients were major corporate players, not local businesses or local governments. The section was therefore amended in the 2010 Dodd-Frank Act to read:

> Discounts for individuals, partnerships, and corporations: In unusual and exigent circumstances, the Board of Governors of the Federal Reserve System…may authorize any Federal Reserve bank…to discount for any participant in any program or facility with broad-based eligibility, notes, drafts, and bills of exchange when such notes, drafts, and bills of exchange are endorsed or otherwise secured to the satisfaction of the Federal Reserve bank.[36]

Macroeconomic policy specialist Marc Labonte summarizes the change in a recent Congressional Research Service report, stating that "the Dodd-Frank Act replaced 'individual, partnership, or corporation' with 'participant in any program or facility with broad-based eligibility,'" ensuring that "assistance be 'for the purpose of providing liquidity to the financial system, and not to aid a failing financial company.'"[37]

What exactly does that mean? Professor Canova interprets the amended section to mean that lending solely to a specific auto company (GM) or to a specific utility company (GE) is prohibited; but lending to all auto companies or to all utility companies might be allowed.[38] Arguably, very-low-interest loans could be extended to *any* business engaged in infrastructure (broadly defined) that demonstrated creditworthiness and the ability to pay the loans back, so long as *everyone* in that category had access to the lending facility on equal terms.

HELICOPTER MONEY

There is another possibility for funding a large-scale infrastructure investment plan, one that is gaining traction in Europe: *simply issue the money*. President Trump himself has expressed some openness to that idea, at least with respect to federal deficits. In May 2016, when challenged over the risk of default from the mounting federal debt, he said, "You never have to default because *you print the money* [emphasis added]."[39] This could be done by Congress or the Federal Reserve. The Fed has already created more than $16 trillion in nearly-interest-free credit for Wall Street.[40] It could create another trillion for infrastructure that benefits all Americans.

Drawing on an analogy by Milton Friedman, economists call this "helicopter money"—new money created by the government, issued electronically, and injected directly into the economy via public spending, tax cuts, or direct payments to individuals.[41] **Helicopter money is a relatively new term for an old and venerable solution**. The American colonies asserted their independence from Britain by issuing their own money; and Abraham Lincoln, our first Republican president, boldly revived that system during the Civil War. Indeed, this "radical" solution is what the founding fathers evidently intended for their new government. The Constitution provides, "The Congress shall have Power… To coin money [and] regulate the Value thereof…"[42] The Constitution was written at a time when coins were the only recognized legal tender; so the Constitutional Congress effectively gave Congress the power to create the national money supply, taking that role over from the colonies (now the states). By reclaiming the power to issue money, the federal government would simply be returning to the publicly-issued money of our forebears, a system they fought the British to preserve.

The invariable objection to "helicopter money" is that it would cause runaway price inflation; but that monetarist theory is flawed, for several reasons. First, there is the multiplier effect: one dollar invested in infrastructure increases gross domestic product by at least two dollars.[43] And that means an increase in tax revenue. According to the Heritage Foundation, total tax revenue as a percentage of GDP is now 26 percent.[44] Thus one new dollar of GDP results in about 26 cents in increased tax revenue; and $2 in GDP increases tax revenue by at least fifty cents. One dollar spent pulls fifty cents or more back in the form of taxes. The remainder can be recovered from the income stream from those infrastructure projects that generate user fees: trains, buses, airports, bridges, toll roads, hospitals, and the like. In any case, adding money to the economy does not drive up prices until demand exceeds supply. Before that, increasing demand (money) will trigger a corresponding increase in supply (goods and services), so that both rise together and prices remain stable.

Today we are actually in a *deflationary* spiral. The economy *needs* an injection of new money just to bring it to former levels. In 2012, the New York Fed posted an updated staff report showing that the money supply had shrunk by about $3 trillion since 2008, due to the collapse of the shadow banking system.[45] The goal of the Federal Reserve's quantitative easing was to return inflation to target levels by increasing private sector borrowing. But rather than taking out new loans, individuals and businesses are paying off old loans, shrinking the money supply. They are doing this although credit is very cheap, because they need to rectify their debt-ridden balance sheets just to stay afloat. They are also hoarding money, taking it out of the circulating money supply. Economist Richard Koo calls this a "balance sheet recession."[46]

The Federal Reserve has already bought $3.6 trillion in assets simply by "printing the money" through QE.[47] When that program was initiated, critics called it recklessly hyperinflationary; but it did not create even the modest 2 percent inflation the Fed was targeting. Combined with ZIRP—zero interest rates for banks—it encouraged borrowing for speculation, driving up the stock market and real estate values; but the Consumer Price Index, productivity, and wages barely budged. As noted on CNBC in February 2016:

> Central banks have been pumping money into the global economy without a whole lot to show for it. … Growth remains anemic, and worries are escalating that the U.S. and the rest of the world are on the brink of a recession, despite bargain-basement interest rates and trillions in liquidity.[48]

Before we start worrying about hyperinflation, we need to get a little inflation going, the sort that creates the money needed to fund new economic activity. "If we have to do QE again," *Daily Telegraph* International Business Editor Ambrose Evans-Pritchard has written, "it would surely be better to inject the money directly into the veins of the real economy."[49]

This could be done through the Treasury, which has the constitutional power to "coin money" and regulate its value; but the more likely vehicle is the central bank, which has already done the audacious with its $3.6 trillion in quantitative easing. The central bank is technically independent of political interference and control. But the president appoints its Board of Governors, Chair, and Vice Chair, with the approval of the Senate; and the Trump Administration is now questioning the Fed's independence, so it might compel the Fed to act.[50]

Failing action by the Fed, however, an injection of new money could be made by Congress directly. As has been pointed out by Randall Wray, professor of economics at the University of Missouri-Kansas City, Congress effectively issues money every time it authorizes a federal budget. New money is "spent" into existence whenever Congress writes checks on its Federal Reserve account.[51]

The problem is that Congress then feels compelled to "balance the budget" (and its checkbook) as if it were a household, something it does by issuing bonds. But Congress is *not* a household. It could simply leave the books unbalanced—as the Chinese do with the massive "non-performing loans" carried on the books of their state-owned banks. Or it could have the Fed buy its bonds, as was done in the Fed's quantitative easing programs. The interest was returned to the Treasury. An interest-free loan from the central bank that is never redeemed is the equivalent of issuing money.

If the president were unable to get either Congress or the Fed to act, he would still have a card up his sleeve. He could resort to a "radical" alternative already authorized in the Constitution: an issue of large-denomination coins. In 2013, the proposal was made to mint a single trillion-dollar platinum coin to avoid an artificially imposed debt ceiling.[52]

HISTORICAL PRECEDENTS

For evidence that infrastructure could be funded in this way without creating hyperinflation or running up the federal debt, we need only to look to our own largely-forgotten history. Under the Legal Tender Act of 1862, Abraham Lincoln, our first Republican president, printed $450 million in greenbacks (U.S. Notes). This *doubled* the circulating money supply, which went from $484.4 million in 1861 to $931.3 million in 1863.[53] Yet hyperinflation did not result.[54] Doubling the money supply today would mean injecting $13 trillion into the economy.

The same year, Lincoln chartered two companies to build the transcontinental railroad (the Central Pacific and the Union Pacific). The government was the lender, not the borrower, on this massive infrastructure project. The two rail lines finally met in Utah in 1869. As reported by Clyde Prestowitz, former counselor to the Secretary of Commerce during the Reagan Administration, in *The Betrayal of American Prosperity*:

> Amazingly, although the government had loaned the companies more than $64 million, it earned more than $103 million in return and did so by the end of 1869. More significantly, the railroad led to the creation of huge new markets and cities and transformed the country into a true continental powerhouse of a nation.[55]

This enormous feat of engineering not only transformed the country but generated a 60 percent profit to the government in just 15 years.

In another bold precedent, President Franklin Roosevelt funded massive infrastructure and development in the 1930s and 1940s, through a publicly-owned financial institution that also turned a profit for the government. The Reconstruction Finance Corporation (RFC) became America's largest corporation and the world's largest banking organization. It was a remarkable credit machine that allowed the government to fund the New Deal and World War II without turning to Congress or the taxpayers for appropriations. First instituted in 1932 by President Herbert Hoover, the RFC was continually enlarged and modified by President Roosevelt to meet the crisis of the times. Its semi-independent status let it work quickly, allowing New Deal agencies to be financed as the need arose. The RFC Act of 1932 provided the RFC with capital stock of $500 million and the authority to extend credit up to $1.5 billion (subsequently increased several times).[56] The initial capital came from a stock sale to the U.S. Treasury, and additional funds were raised by selling bonds to the Treasury that were then sold to the public.[57]

With those resources, from 1932 to 1957 the RFC loaned or invested more than $40 billion.[58]A small part of this came from its initial capitalization. The rest was borrowed. The RFC ended up borrowing a total of $51.3 billion from the Treasury and $3.1 billion from the public.[59] Although it was not a depository bank, borrowing from the Treasury was the functional equivalent of a bank borrowing liquidity from its depositors, or of the Bank of North Dakota borrowing the revenues of its captive depositor, the state of North Dakota. As with the transcontinental railroad, the government was the lender, not the borrower, in this arrangement. The loans produced a total net income of $690,017,232 on the RFC's "normal" lending functions (omitting such things as extraordinary grants for wartime). The RFC generated the funds for roads, bridges, dams, post offices, universities, electrical power, mortgages, farms, and much more; and it funded all this while actually making a profit for the government.[60]

THE POWER OF BOLDNESS

That is how a sovereign nation rebuilds its infrastructure—or how it can. The U.S. government has the authority, as do all governments with monetary sovereignty. There is simply no need to go to private investors and capital markets for funding. A $1 trillion infrastructure plan could be implemented that was effectively free to the government, using the power of the Treasury to "coin money" or of the central bank as "lender of last resort." Less radically, the cost of Trump's infrastructure plan could be *cut in half* by the simple expedient of funding it through a government-owned depository bank or network of such banks in the states. None of these options would require raising taxes, selling off public assets, driving up the federal debt, or hyperinflating prices, as has been shown. They would also not line the pockets of private investors at public expense. Indeed, that may be why these cost-effective solutions are not being pursued.

As Goethe is quoted as saying, "Whatever you can do, or dream you can do, begin it. Boldness has genius, power, and magic in it." Congress has always managed to find the money for war and other life-threatening emergencies. The Oroville Dam poised to burst near California's capital Sacramento is emblematic of the infrastructure crisis threatening us today. It is time to overlook partisan differences, seize the moment, and authorize one of the low-cost options available to the government for funding the long-overdue infrastructure investment our country so desperately needs. ●

NOTES

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ABOUT THE NEXT SYSTEM PROJECT

The Next System Project is an ambitious multi-year initiative aimed at thinking boldly about what is required to deal with the systemic challenges the United States faces now and in coming decades. Responding to real hunger for a new way forward, and building on innovative thinking and practical experience with new economic institutions and approaches being developed in communities across the country and around the world, the goal is to put the central idea of system change, and that there can be a "next system," on the map. Working with a broad group of researchers, theorists, and activists, we seek to launch a national debate on the nature of "the next system" using the best research, understanding, and strategic thinking, on the one hand, and on-the-ground organizing and development experience, on the other, to refine and publicize comprehensive alternative political-economic system models that are different in fundamental ways from the failed systems of the past and capable of delivering superior social, economic, and ecological outcomes. By defining issues systemically, we believe we can begin to move the political conversation beyond current limits with the aim of catalyzing a substantive debate about the need for a radically different system and how we might go about its construction. Despite the scale of the difficulties, a cautious and paradoxical optimism is warranted. There are real alternatives. Arising from the unforgiving logic of dead ends, the steadily building array of promising new proposals and alternative institutions and experiments, together with an explosion of ideas and new activism, offer a powerful basis for hope.

Design & typography by Kate Khatib / Owl Grammar Press.