

## Legislative proposals to address the Climate Crisis

Cap and Trade: A bill was passed in the House in 2010 but failed in the Senate. It would have provided carbon emitters with permits, the number to be reduced over time, with provisions for those that reduced their emissions more quickly to trade (sell) their permits to those that didn't, and ways for those that didn't to purchase carbon "offsets." FCNL supported the goal but opposed the final bill as a give-away to the fossil fuel industries that would create speculative and/or unverifiable carbon reduction markets.

Fee and Dividend: FCNL was instrumental in 2010, in promoting the Senate's first fee and dividend bill. It would charge a steadily increasing fee for the carbon content of fossil fuels at their point of entry into the economy and distribute the proceeds as a per capita dividend to all citizens. The dividend was expected to offset the increased energy costs for most households. This concept became the goal of the Citizens' Climate Lobby, and a bill based on it, with bi-partisan support, has been re-introduced in the House.

### A Summary of the Green New Deal House Resolution of 2/5/19

It is the duty of the Federal Government to create a Green New Deal in order to:

- achieve net zero greenhouse gas emissions;
- create millions of good, high-wage jobs;
- invest in infrastructure and industry;
- secure clean air and water, community resiliency, healthy food, access to nature, and a sustainable environment;
- promote justice and equity.

This should be accomplished through a **10-year mobilization** with the following goals:

- building resiliency against climate change;
- repairing and upgrading infrastructure;
- meeting 100% of power demands through zero-emission energy sources, and building distributed, energy efficient power grids;
- upgrading all existing buildings, and spurring massive growth in clean manufacturing;
- overhauling transportation systems;
- eliminating pollution and greenhouse gas emissions as much as possible from farming;
- mitigating the effects of pollution and climate change, and reducing other pollution sources;
- restoring ecosystems to enhance biodiversity and support climate resiliency;
- cleaning up hazardous waste sites;
- promoting international collaboration and exchange of expertise.

A Green New Deal should be developed through inclusive collaboration and partnership with frontline and vulnerable communities, labor unions, civic groups, academia, and businesses.

Achieving these Green New Deal goals will require:

- providing and leveraging capital in a way that the public receives appropriate ownership and return on investment (**using community grants, public banks, and other public financing**);
- directing investments toward economic development in vulnerable communities, prioritizing job creation with high quality jobs for workers affected by the transition, while accounting for social and environmental costs;
- providing education and training so that all communities can be full and equal participants;
- guaranteeing jobs with family-sustaining wages, strengthening workers rights to organize, and workplace health/safety/wage/hour/and anti-discrimination standards;
- enacting trade rules with strong labor and environmental protections, and ensuring a business environment free from domination by monopolies;
- making public investments in research and development;
- ensuring democratic and participatory process;
- obtaining consent of indigenous people for all decisions affecting them;
- ensuring that public lands, waters and oceans are protected;
- providing everyone with health care, housing, economic security, and access to a clean and healthy environment.

# PUBLIC BANKING AND REAL FINANCIAL REFORM

## **Introduction: Why financial reform is essential to deal with the climate crisis.**

The climate crisis is only the most urgent of many ecological and socio-economic crises we face. They present our nation and the world with a huge predicament. These crises are largely a product of our current economic system, for reasons that are not widely recognized, and that most of our leaders ignore or deny.

One reason has to do with the way our money is created. Many people think the U.S. government creates our money. It's true that the Treasury creates the supply of coins, and also handles the printing of Federal Reserve Notes, our dollar bills (that cost the Fed 14 cents apiece). But most of the money in the U.S. and throughout the world is bank account money - numbers in bank accounts that are created by private banking systems when banks make loans, and then are shifted from one account to another as payments are made.

When a bank makes a loan, it creates an asset, a loan agreement signed by the borrower, and a liability by entering numbers in a bank account for the amount of the loan. The key to this process is that numbers in bank accounts are treated as money, a bank is handling both deposit accounts and loans, and in the US the Federal Reserve System supports banks in a number of ways, which includes providing them with the bills they need to cash checks. The banks' role in creating money by incurring debt is largely unrecognized, and so too is the reality that because interest is charged on bank debt, there is always more debt than the money it creates.

This means that because banks create most of our money, the banks decide who gets it. For example, world-wide, between 2016 and 2018, banks provided more than \$1.9 trillion to the fossil fuel industries. It also means that ever more debt, including student debt, credit-card debt, and predatory lending, is needed to increase the supply of money that a growing economy requires.

The interest paid to the private banking system for every dollar it creates helps to systematically increase the concentration of wealth, which deprives communities of the economic resources they need to prosper. And the need to pay off debt drives indiscriminate economic growth, which is destroying the earth's ecological systems, including a stable climate system, that provide everyone and everything with life's necessities.

## **What is a public bank and what are its benefits?**

Public banks are, by definition, owned or substantially owned by a governmental entity. There are over 600 public banks in other nations, and they can take several forms.

The form being advanced in a number of states and municipalities is like the Bank of North Dakota. Established in 1919, it receives all the funds of the North Dakota government as deposits. It then uses these deposits as reserves to make loans to government agencies, and through local banks and credit unions to businesses, non-profits, and households for projects that benefit the state's economy and communities. It also provides student loans at below-market rates.

Another form is a publicly owned or partially owned depository bank that serves the people and businesses of a region or community directly. Like a credit union, it lends mainly to its depositors and does not use financial markets to make potentially more profitable but also more risky investments. Prominent examples are Japan's postal savings system (now in the process of being privatized), and Germany's community savings banks, that according to OECD hold 40% of Germany's banking assets. Our nation used to have Postal Savings Banks, established by the Taft Administration in 1911 that continued until 1967.

A third form is a public lending agency. Instead of providing funds for a specific project, a government can provide funds for an agency it creates that uses these funds as reserves to provide loans for a larger number of projects. The income and/or financial benefit from the projects are then used to repay the loans. The largest of these was the Reconstruction Finance Corporation that the Hoover Administration established in 1932 to aid failing banks and was then used by the Roosevelt Administration for many New Deal projects and World War II military expenses. The Next System Project has recently proposed establishing a US Green Investment Bank.

State and local public banks can use public funds as reserves to make loans for purposes prescribed by their charters. These can include community and economic development projects, public agency and infrastructure projects, affordable tuition loans, and through local financial institutions, for businesses, farms, and households. There's much that the Bank of North Dakota, or a public lending institution like a federal home loan bank, can do with public money to further the common good. But they must operate within the existing Federal Reserve System, which is essentially an extension of the private banking system. They can create money as the private banks do. But they can do nothing to prevent the increasingly dangerous effects of the debt-based money created by the private, for-profit banking system.

## **Real financial Reform**

A fourth, and by far the most influential form that public banking could take, that would constitute real financial reform, is to make our central bank, the Federal Reserve, an independent agency within the Treasury Department. Its primary function would be

issuing the nation's money supply and managing the nation's monetary policy to advance the common good, rather than to protect the private banking system, which the Fed is almost forced to do, as was demonstrated during the 2008 financial crisis.

A number of other nations, most notably China, India, and Japan, have publicly owned and partially owned banks that invest in their economic development. Furthermore, the Bank of Canada functioned as the Canadian government's public central bank from 1938 to 1974. This enabled the Canadian government to finance much of its transportation and health care infrastructure, with very little accumulation of public debt, to the great benefit of Canada's governments and its people.

In the 1930s, some of our leading economists advanced a similar proposal, called the Chicago Plan, to make the Fed a public central bank. They knew that the Federal Reserve System had essentially been designed by a group of Wall St bankers to empower the private banking system and the financial sector it has spawned. As one of them put it, the purpose of the Chicago Plan was to enable capitalism to survive. It's sometimes forgotten that neo-liberalism is far from the only form of economic policy that has the qualities and benefits of capitalism.

Meanwhile, about that same time, and shortly before the Bank of Canada became Canada's public central bank, the Banking Act of 1935 was influenced by Wall Street bankers to prohibit the Fed from lending directly to the government, and the federal debt is sold by banks to wealthy bondholders. Thus, as the federal debt has grown, so has its role in shifting wealth from the many to the few.

Monetary reform would make the system operate like most people assume it does. Money would be created, debt-free, by the Fed as an independent agency within the Treasury Department. Banks would still function independently as they do now, providing checking accounts, debit and credit cards, other electronic transfers, and loans for business operations and investments, mortgages, car purchases, and other personal loans.

But the Fed would determine how much money is needed to keep its purchasing power stable and for public investment to serve the general welfare. If private banks curtail their lending, as happened in 2008-09, the Fed would be able to maintain the money supply directly by issuing and/or lending money directly to governments. The Fed could also use tools it already has to manage the amount of money created by the banking system. In a recent article, the Public Banking Institute's Ellen Brown identified a number of ways that this kind of reform could be advanced within the current banking framework.

Reforming the Federal Reserve System so it can function as a public central bank, would be a first step in reducing the power of the financial sector in our economy and society. It would enable our money supply to be free of debt and created to serve the common good rather than for private gain. It would enable investment to be directed away from fossil fuels and toward establishing a low-carbon economy. It would enable our governments to begin developing an economy that is not based on debt to the private banking system and does not drive indiscriminate economic growth or systematically increase the concentration of wealth.

### **What is stopping public banking?**

A huge factor is wide-spread ignorance. Another is that once a system based on debt is in place, and wealth accumulates to the point of dominating the system, change becomes very difficult until the system begins to fail.

State legislation will be needed to establish a state public bank, and to facilitate the ability of counties and/or cities to meet state banking requirements. The financial sector has used and will continue to use its money and political influence, both covertly and overtly, to prevent the expansion of state and local public banking in order to protect its profits and dominance. A huge advance was made recently with a new California law which enables governments within the state to establish their own public banks, and this law can serve as a model that advocates in other states can use.

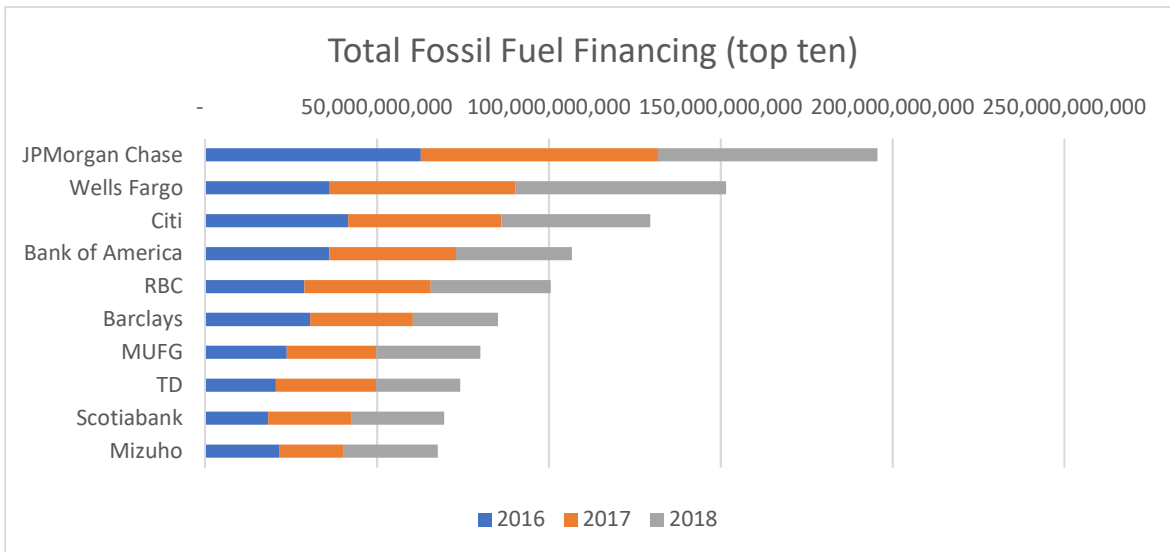
Needless to say, reforming the Federal Reserve is the most radical of public banking proposals. But it's also perhaps the most essential. So as unlikely as it may seem, if there's another major crisis in the financial system, the time may be coming for real financial reform.

## Some Examples of Problems due to the Current Banking and Financial System

From “Banking on Climate Change.” See <https://www.ran.org/bankingonclimatechange2018/>

Rainforest Action’s fossil fuel finance report card of 2019 shows that 33 global banks have financed the fossil fuels industries with \$1.9 trillion since the Paris Agreement was adopted, from 2016 to 2018, and by an increasing amount each year. Although there is no room for new fossil fuels in the world’s carbon budget, these banks provided almost \$600 billion in the last three years to the 100 companies that are most responsible for expanding fossil fuel production.

Our nation’s banks were by far the largest funders in both categories, led by JPMorgan Chase. The report also identifies Wells Fargo and JPMorgan Chase as the biggest funders of fracking, and of companies active in the Permian Basin, the epicenter of the climate-threatening global surge of oil and gas production.



*How can our political system promote a transition to a low-carbon economy when our economic system continues to invest so heavily in fossil fuels? What can be done to keep this from happening?*

### What is a financial derivative, and how large is the derivatives market?

(based primarily on Wikipedia’s article on derivatives)

In finance, a **derivative** is a contract that *derives* its value from the performance of an underlying financial asset, index, or interest rate. The modern form of derivatives began in the 1970s, proliferated in the ‘80s with the development of computers, the ‘90s with the internet, and the banking deregulation of 1999. Some of the more common derivatives include options, swaps, and variations of these such as synthetic collateralized debt obligations and credit default swaps.

The size of the derivatives market is mind-boggling. In 2011, it was estimated to be more than \$780 trillion, and in 2017, the European [derivatives market](#) by itself was estimated to be \$720 trillion. By contrast, in 2012 the federal government spent \$3.5 trillion, the current value of the U.S. stock market is about \$23 trillion, and the world annual GDP is about \$65 trillion.

Some economists say that these values greatly exaggerate the credit risk faced by the parties involved, which was probably less than \$25 trillion in 2010. Still, even these scaled down figures represent huge amounts of money, and the size of the financial economy has become far larger than the real economy of the production of goods and services.

Derivatives can be and are used in order to manage the risks associated with other financial assets. But they are used to a far larger extent for financial speculation, so much so that the financial economy has often been referred to as “the casino economy.”

By the turn of the century, derivatives had become so ubiquitous and potentially destabilizing that in 2002 financier Warren Buffett referred them as "financial weapons of mass destruction" and in 2005 Congress gave them first priority in bankruptcy proceedings, even ahead of a financial institution's depositors.

Did derivatives cause the 2008 financial crisis? It's been asserted that the real financial crisis was barely averted in 2009 when the triggering of thousands of derivatives contracts could have wiped out most of the largest banking institutions in the world. See <https://www.businessinsider.com/bubble-derivatives-otc-2010-5>. How do derivatives affect our nation's steadily growing disparity in the distribution of wealth? The internet ducks the question.

**From "The Crisis Next Time."** See <https://thenextsystem.org/sites/default/files/2018-06/TheCrisisNextTime.pdf>

Repeated scandals and investigations during the past decade suggest that the financial sector has not dealt with the internal dynamics and incentives that led to the excessive risk taking, speculation, and fraud that was at the heart of the financial crisis. It also seems clear that its leaders have no intention to do this but will continue to influence the political process to prevent government from interfering with their version of business as usual.

Citigroup, which has a long history of fraud and abuse going back to the 1970s, is emblematic of the industry as a whole, though as Wells Fargo aptly demonstrates, it's far from the only bad actor. Since 2008, Citigroup has paid billions of dollars to settle dozens of allegations and lawsuits based on activities before, during, and after the crisis. This includes:

- over \$10 billion for misleading and/or defrauding investors;
- over \$8.2 billion for misleading and/or defrauding homeowners and consumers;
- over \$2.1 billion for manipulating interest rates, foreign exchange rates, and futures markets;
- and almost \$100 million for money laundering by its Mexican affiliate.

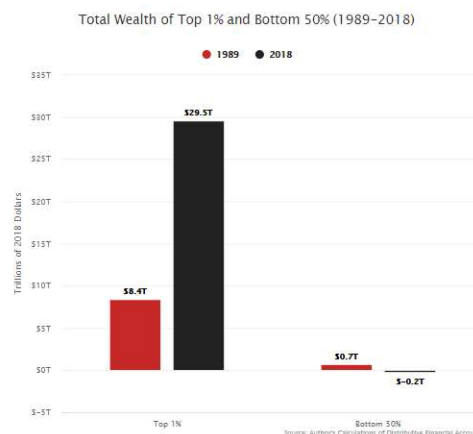
These settlements totaled more than \$20.2 billion

***(For Citigroup, just a cost of doing business. What can be done to end these kinds of abuses?)***

**The upper 1% are up \$21 Trillion/the lower 50% are down \$900 Billion.** From <https://www.peoplespolicyproject.org/2019/06/14/top-1-up-21-trillion-bottom-50-down-900-billion/>

Recently, the Federal Reserve released a new data series called the [Distributive Financial Accounts](#), which provides an estimate of the distribution of wealth in America. The series goes from 1989, the first year of the Fed's Survey of Consumer Finances, through the last of its Financial Accounts Reports in 2018, which provides economy-wide aggregates for nearly every kind of financial asset and liability.

The new data shows that during the past 30 years, the net worth of the top 1 percent increased from \$9 trillion to almost \$30 trillion, while the net worth of the bottom 50 percent decreased by \$900 billion and is below zero. This means that, based on averages, half of our people now have more debts than they have assets.



## “The BND Story” (excerpts), from the Bank of North Dakota.

See <https://bnd.nd.gov/the-bnd-story/>

### History

In 1836, the U.S. Congress did not renew the charter for the Second Bank of the United States, opening the door for states to start their own banks. Alabama, Kentucky, Illinois, Vermont, Georgia, Tennessee and South Carolina all created banks that were completely owned by the state government. Missouri, Indiana and Virginia had banks with the State holding a majority interest and a number of other states created banks with the State owning a minority interest. By 1900, only Virginia and Kentucky survived. Today, these two banks are no longer functioning.

During the early 1900s, North Dakota’s economy was based on agriculture, specifically wheat. Frequent drought and harsh winters didn’t make it easy to earn a living. The arduous growing season was further complicated by grain dealers outside the state who suppressed grain prices, farm suppliers who increased their prices, and banks in Minneapolis and Chicago which raised the interest rates on farm loans, sometimes up to 12%.

North Dakotans were frustrated and attempts to legislate fairer business practices failed. A.C. Townley, a politician who was fired from the Socialist Party, organized the Non-Partisan League with the intent of creating a farm organization that protected the social and economic position of the farmer.

The Non-Partisan League gained control of the Governor’s office and the legislature in 1918. Their platform included state ownership and control of marketing and credit agencies. In 1919, the state legislature established The Bank of North Dakota (BND) and the North Dakota Mill and Elevator Association. BND opened July 28, 1919, with \$2 million of capital.

BND has responded to the state’s needs since inception. When teachers were paid with warrants rather than cash during The Great Depression, BND paid them in full rather than with the 15 percent loss they would take when trying to cash it elsewhere. In the 1940s, BND sold back farmland which had been foreclosed during the 30s, usually to the original families who owned it and had been allowed to remain on the land and farm it.

In 1945, BND made its first transfer of funds to the State’s General Fund, \$1,725. By the end of the 1950s, most of the farmland purchased from farmers during the Great Depression had been sold and the Bank was making home mortgage loans in small communities when community banks were not doing so.

Governor William Guy took office in 1961. His belief that the Bank should serve as an engine for economic development highly influenced its course. The commercial loan portfolio increased significantly by partnering with financial institutions for participation loans. In 1967, BND made the first federally-insured student loan in the United States.

In addition to economic development support, BND has provided recovery funding during disasters such as the 1997 floods in Grand Forks, the 2011 floods in Minot and Bismarck and agriculture relief loans during times weather-related hardship.

Although individuals receive student loans directly from BND, they are not targeted for other loans or retail accounts. BND does not offer credit card or ATM services to the general public. Individuals and businesses must work with their local financial institution for business, residential and most agriculture loans. If the local bank or credit union wants to participate on a loan with BND or the borrower wants to access a BND program, the request comes through the lead financial institution, not the borrower.

The Bank of North Dakota has been located in Bismarck since it opened in 1919, moving to its current location in 2008. While there are no branches of the bank, offices with lending officer staff members are located in Fargo, Grand Forks and Minot.

### Organizational Structure

Industrial Commission: The 1919 State Legislature created the State Industrial Commission whose function was to conduct and manage certain utilities, industries, enterprises and business projects. The Industrial Commission was

charged with the operation, management and control of BND. The Commission is composed of the Governor who acts as Chairman, the Attorney General, and the Agriculture Commissioner.

Advisory Board: The BND Advisory Board of Directors was established by state statute in 1969. The Governor of North Dakota appoints Advisory Board members knowledgeable in banking and finance to the seven-member board. The Advisory Board reviews the Bank's operations and makes recommendations to the Industrial Commission concerning management, services, policies and procedures.

Executive Committee: The Bank of North Dakota's Executive Committee consists of seven members: President and CEO, Chief Business Development Officer, Chief Credit Officer, Chief Administrative Officer, Chief Technology and Operations Officer, Chief Financial Officer, and Chief Risk Officer. The Legislature has authorized 181.5 full time equivalents for employment at Bank of North Dakota.

## **Operations overview**

**BND is not FDIC Insured.** In contrast to most commercial banks, BND is not a member of the Federal Deposit Insurance Corporation (FDIC). North Dakota Century Code 6-09-10 provides that all BND deposits are guaranteed by the full faith and credit of the State of North Dakota.

**Minneapolis Federal Reserve Bank** - BND has a business relationship with the Minneapolis Federal Reserve Bank. We do check processing, deposit excess cash balances, maintain a reserve requirement, safe keep all our Fed book entry securities and have discount window borrowing authority.

**Bank profits are returned to the State** - The Bank's profits are utilized in three ways: appropriation through the North Dakota Legislature to fund the General Fund, mission-driven loan programs and BND's capital. With legislative approval, BND funds interest rate buydowns and off-balance sheet programs that help drive economic development and infrastructure projects across the state.

**Deposit base** - All state funds must be deposited with BND unless specific authority allows for outside investments. Most of BND's deposits come from the state's collection of taxes and fees. The balance of the Bank's deposits come from corporate accounts, North Dakota city and county government entities, and North Dakota residents.

**Partnership with local financial institutions:** The Bank of North Dakota maintains strong relationships with financial institutions in the state and does not compete with them. This was established in the Bank's founding principles in 1919: *"BND is to be helpful to and assist in the development of... financial institutions and public corporations within the state and not, in any manner, to destroy or to be harmful to existing financial institutions."*

BND is authorized to assist other financial institutions in providing financing to stimulate economic development in the state. This efficient business model allows us to promote the state's programs and work with knowledgeable people who understand the communities they serve.

**Looking to the future** BND proactively addresses the state's needs by meeting regularly with our financial institution, government, higher education and economic development partners. Our vision statement, *"BND is an agile partner that creates financial solutions for current and emerging economic needs,"* continues to drive us to meet our mission *'To deliver quality, sound financial services that promote agriculture, commerce and industry in North Dakota.'* This mission statement was established in 1919 and remains the same today, reminding us of our important role and responsibility to the citizens of North Dakota.

# A US Green Investment Bank for All: Democratizing Finance for a Just Transition

by Thomas Marois, University of London, and Ali Riza Gungen, Carnegie Mellon University

from The Next System Project, September 20, 2019

In ways unimaginable just a few years ago, public banking and its potential for catalyzing a transition to a green and just future have been catapulted to the center of political and economic debate. The reason: The greed-driven excesses of Wall Street and global finance that gave rise to the 2008-09 global financial crisis are now continuing to drive today's global crisis of climate finance.

The financial sector today offers seemingly limitless access to debt for financing planet-damaging consumption but does not carry its weight in financing solutions to the climate crisis. Of the \$454 billion in climate finance invested in 2016, the private investment sector, which controls 80 percent of all banking assets, contributed \$230 billion, while the public sector contributed \$224 billion. That is, with only 20 percent of total assets, public banks invest nearly as much as all private banks combined. The short-term, return-maximizing horizons of private finance have failed, utterly, to drive anything like a green transition. The future of climate finance must look to the public sphere, not the private.

We must also ensure that the green transition is just. The costs of the global finance and climate crises have fallen disproportionately onto workers, women, racialized communities, and the most marginalized in society. In the financial crisis, failing corporations got direct bailouts; their low-wage workers and the unemployed got imposed austerity as public support systems were axed. The challenges the climate crisis will impose on both the natural and built environment will also necessarily be faced unequally and unjustly. The most marginalized will bear the brunt of transition by virtue of existing structural barriers and in-built systems of oppression.

What is urgently required is strategy and action on a green and just transition for all. Democratized finance will be key. Low-carbon infrastructure needs constructing, local jobs protecting, fossil fuels need to remain in the ground, the planet needs cooling, and social equity needs action. Yet there is no hope of this type of green and just transition without financial institutions that can be democratically commanded to function in the public interest.

For this reason, we propose the creation of a democratized US Green Investment Bank (GIB). A democratized GIB has the potential to catalyze a transition to a socially just and environmentally sustainable future that is otherwise impossible under the short-term, high-return regime of private financiers (regardless of the extent of their financial resources). The GIB's potential is, of course, only realizable within a grander strategy of socioeconomic transformation, such as is envisioned within the Green New Deal. The proposed design of a new GIB is meant to fit strategically within this evolving framework. Its potential depends on the GIB catalyzing structural change in the public interest.

A new GIB needs to function in accordance with a triple bottom line: (1) a green and just transition, (2) financial sustainability, (3) and democratic decision-making.

Key points include:

- Public banks that already exist in the USA and around the world offer important and viable precedents that can inform the creation of a new public green investment bank. Public banks in the US throughout history have shown variations in both their structure and social content as the major motives for their creation have changed over time. Nonetheless, public banking capacity will be critical for furthering a socially progressive agenda and public banks are potential strongholds to support the public good.
- A GIB will need to be financially sustainable, but there is no evidence that public banks must prioritize returns to be financially sustainable.
- What sustainability does mean here is securing sufficient and recurrent income to fulfill its mandate, on par with the aim of enabling a green and just transition and democratic decision-making. The key political-economic decision in the design is the balance between concessionary lending (nonprofit and loss-making operations) and non-concessionary lending (that is, for-profit). The answers must follow from the bank's public interest mandate and triple bottom line.
- A GIB must move beyond corporatized "governance" models to being meaningfully democratized. That means internalizing and acknowledging the already-existing connections (and disparities) between society, politics, and economics in institutional decision-making in ways that are transparent and accountable to the affected community. We recommend combining the representative and inclusive forms of representation within the GIB in order to provide substantive democratized oversight and accountability, which can then enable the bank to function credibly in the public interest.

For the full report,

see [https://thenextsystem.org/green-investment-bank?mc\\_cid=294497ba3e&mc\\_eid=6a942a3700](https://thenextsystem.org/green-investment-bank?mc_cid=294497ba3e&mc_eid=6a942a3700)



To: Monthly meetings in our Yearly Meeting

October 2019

From: Steve Olshevski, Radnor Monthly Meeting, and Ed Dreby, Providence Monthly Meeting

Re: **Toward a Traveling Ministry on the Climate Crisis, Money, and a Green New Deal**

In its special report of October 2018, the Intergovernmental Panel on Climate Change stated that

- the effects of higher temperatures have been more severe than previously anticipated,
- an increase in the global average temperature of more than 1.5 Celsius degrees would be globally catastrophic,
- unprecedented change to make huge reductions in carbon and other heat-trapping emissions must be made by 2030 in order to keep this from happening.

In other words, humanity faces an inconceivably urgent climate crisis, of largely unacknowledged severity, especially in our nation.

Our Yearly Meeting has acted many times since 1997 to address climate change. Now we are hoping to raise the level of engagement in monthly meetings, so that as a faith community we can help with the urgent actions that will now be required to avoid a climate catastrophe.

The purpose of this ministry is helping our Yearly Meeting to

- increase our understanding of the depth of the climate crisis we face,
- nurture our commitment to seek Spirit-led ways, as individuals and as a faith community, that we can respond to this crisis, and
- strengthen the conviction that if we join with others who are also determined to do their part, it may possible to find ways for making what seems daunting able to happen.

We want to visit Friends in monthly meetings to explore one or more of these three questions:

- How do legislative proposals for reducing carbon emissions differ?
- What can state and local governments do that address the scale of the challenges we face, and how can they be financed?
- How might Friends make a difference in national policy, even though what seems scientifically essential to deal with the climate crisis also seems politically impossible?

Our approach to all three of these questions will include a basic explanation of some different forms of public banking, and how they might contribute to dealing with the climate crisis.

We would welcome opportunities to come for a forum or adult religious education class of 45 minutes to an hour, in which we could either

- respond to all three questions briefly with a limited time for open discussion; or
- focus on one of the questions with time for Friends to share their opinions and concerns with others, as well as in open discussion.

And we would especially like opportunities to lead a two to three-hour interactive workshop based on all three questions, and on what we learned from a workshop we led at July's Annual Sessions.

Please contact us at [steve.olshevski@gmail.com](mailto:steve.olshevski@gmail.com) or [eddreby@gmail.com](mailto:eddreby@gmail.com) to arrange for a visit to your meeting or other opportunity to share our information and concerns.

## **What can you do about public banking and the climate crisis?**

Learn more about public banking and the relationship between the financial system and the climate crisis. The suggestions below will also point you to others.

Share your concerns and what you learn with others, and within your monthly meeting. If you think the Traveling Ministry would be helpful for doing this, ask that we be invited for a forum or a workshop.

Communicate with your elected representatives about your concern. Arrange for a visit with a staffer, preferably with several others who share your concern. FCNL has suggestions for planning a lobbying visit at <https://www.fcnl.org/updates/lobby-visit-roadmap-129>.

Participate in FCNL's priorities process this winter and spring. FCNL knows how to communicate with members of Congress and their staff about hard realities that are of concern to Friends, but they need to hear from Friends about the things that concern them.

## **Suggestions for learning more about public banking and the climate crisis**

### ***About the climate crisis,***

Summary for Policy-makers of the 2018 IPCC Special Report: Global Warming of 1.5 °C. at <https://www.ipcc.ch/sr15/chapter/summary-for-policy-makers/> for the

About the UN General Assembly's 2019 Special Session at <https://www.un.org/press/en/2019/ga12131.doc.htm>

About the UN's 2019 Climate Action Summit at [https://en.wikipedia.org/wiki/2019\\_UN\\_Climate\\_Action\\_Summit](https://en.wikipedia.org/wiki/2019_UN_Climate_Action_Summit)

Bill McKibben, "Money is the Oxygen on which the Fire of Global Warming Burns" at [www.newyorker.com/news/daily-comment/money-is-the-oxygen-on-which-the-fire-of-global-warming-burns](http://www.newyorker.com/news/daily-comment/money-is-the-oxygen-on-which-the-fire-of-global-warming-burns)

### ***About economic growth, debt and the monetary system***

Pamela Haines et al, *Toward a Right Relationship with Finance*, Quaker Institute Focus Book 9 (2016), available from Quakerbooks, Amazon, and can be downloaded for free at [www.quakerinstitute.org](http://www.quakerinstitute.org)

See interview with Vaclav Smil at [https://www.theguardian.com/books/2019/sep/21/vaclav-smil-interview-growth-must-end-economists?CMP=tw\\_t\\_a-environment\\_b-gdneco&fbclid=IwAR3BhenDJXMMJhHx2-Hb-5a3A6LpCzQSUVeBMfyEkZ-0kVWHtx1I2A7v3s0](https://www.theguardian.com/books/2019/sep/21/vaclav-smil-interview-growth-must-end-economists?CMP=tw_t_a-environment_b-gdneco&fbclid=IwAR3BhenDJXMMJhHx2-Hb-5a3A6LpCzQSUVeBMfyEkZ-0kVWHtx1I2A7v3s0)

See also The Alliance for Just Money at <https://www.monetaryalliance.org>

### ***About state and municipal public banking:***

"Public Banking - Friendly Values," by Nichoe Lichen, from Western Friend. see <https://westernfriend.org/article/public-banking---friendly-values>

The Public Banking Institute's report on public banking legislative initiatives in fifteen states: see <https://www.publicbankinginstitute.org/local-efforts-by-state/#ME>

*Exploring a Public Bank for New Jersey: Economic Impact and Implementation*, from Stockton University. See <https://stockton.edu/hughes-center/documents/2018-0326-exploring-a-public-bank-for-new-jersey-economic-impact-and-implementation.pdf>

"Regulation is Killing Community Banks, Public Banks Can Revive Them," by Ellen Brown (see below).

### ***About real financial reform***

Thomas Hannah, "The Crisis Next Time," at <https://thenextsystem.org/learn/stories/crisis-next-time-planning-public-ownership-alternative-corporate-bank-bailouts>

See articles on *The Web of Debt Blog* by Ellen Brown at <https://ellenbrown.com>, including especially:

["This Radical Plan to Fund the 'Green New Deal' Just Might Work"](#)

["The Bankers' 'Power Revolution': How the Government Got Shackled by Debt"](#)

**Also see:** The Public Banking Institute, at <https://www.publicbankinginstitute.org>

About the Chicago Plan, see [https://en.wikipedia.org/wiki/The\\_Chicago\\_Plan\\_Revisited](https://en.wikipedia.org/wiki/The_Chicago_Plan_Revisited)

## **EARTH AS A SPACE SHIP**

by Kenneth E. Boulding

*Presentation of May 10, 1965, Washington State University, Committee on Space Sciences, from Kenneth E. Boulding Papers, Archives (Box # 38), University of Colorado at Boulder Libraries.*

In the imagination of those who are sensitive to the realities of our era, the earth has become a space ship, and this, perhaps, is the most important single fact of our day. For millennia, the earth in men's minds was flat and illimitable. Today, as a result of exploration, speed, and the explosion of scientific knowledge, earth has become a tiny sphere, closed, limited, crowded, and hurtling through space to unknown destinations. This change in man's image of his home affects his behavior in many ways, and is likely to affect it much more in the future.

It is not only that man's image of the earth has changed; the reality of the world social system has changed. As long as man was small in numbers and limited in technology, he could realistically regard the earth as an infinite reservoir, an infinite source of inputs and an infinite cesspool for outputs. Today we can no longer make this assumption. Earth has become a space ship, not only in our imagination but also in the hard realities of the social, biological, and physical system in which man is enmeshed.

In what we might call the "old days," when man was small in numbers and earth was large, he could pollute it with impunity, though even then he frequently destroyed his immediate environment and had to move on to a new spot, which he then proceeded to destroy. Now man can no longer do this; he must live in the whole system, in which he must recycle his wastes and really face up to the problem of the increase in material entropy which his activities create. In a space ship there are no sewers.

Let me suggest, then, some of the consequences of earth becoming a space ship. In the first place, it is absolutely necessary for man now to develop a technology that is different from the one on which he now bases his high-level societies. High-level societies are now based on the consumption of fossil fuels and ores, none of which, at present rates of consumption, are likely to last more than a few hundred years. A stable, circular-flow high-level technology is conceivable in which we devote inputs of energy to the concentration of materials into useful form, sufficient to compensate for the diffusion of materials which takes place in their use.

At the moment we take fuels and burn them, we take concentrated deposits of iron ore for instance, and phosphates, and we spread these throughout the world in dumps, and we flush them out to the oceans in sewers. The stable high-level technology will have to rely on the oceans and the atmosphere as a basic resource from which materials may be concentrated in sufficient quantity to overcome their diffusion through consumption. Even this, of course, will require constant inputs of energy. There is no way for the closed system to prevent the increase of entropy. Earth, fortunately, has a constant input of energy from the sun, and by the time that goes, man will probably have abandoned earth; and we have also the possibility of almost unlimited energy inputs from nuclear fusion, if we can find means of harnessing it usefully.

Man is finally going to have to face the fact that he is a biological system living in an ecological system, and that his survival power is going to depend on his developing symbiotic relationships of a closed-cycle character with all the other elements and populations of the world of ecological systems. What this means, in effect, is that all the other forms of life will have to be domesticated, even if on wildlife preserves.

The consequences of earth becoming a space ship for the social system are profound and little understood. It is clear that much human behavior and many human institutions in the past, which were appropriate to all infinite earth, are entirely inappropriate to a small closed space ship. We cannot have cowboys and Indians, for instance, in a space ship, or even a cowboy ethic. We cannot afford unrestrained conflict, and we almost certainly cannot afford national sovereignty in an unrestricted sense.

On the other hand, we must beware of pushing the analogy too far. In a small ship, there would almost have to be a dictatorial political system with a captain, and a planned economy. A voyaging space ship, like a battleship, almost has to be a centrally planned economy. A large space ship with three billion passengers, however, or perhaps ten billion, may have a very different social structure. Large social organizations are very different from small. It may be able to have much more individual freedom, a price system and a market economy of a limited and controlled kind, and even democratic political institutions.

There must be, however, cybernetic or homeostatic mechanisms for preventing the overall variables of the social system from going beyond a certain range. There must, for instance, be machinery for controlling the total numbers of the population; there must be machinery for controlling conflict processes and for preventing perverse social dynamic processes of escalation and inflation. One of the major problems of social science is how to devise institutions which will combine this overall homeostatic control with individual freedom and mobility. I believe this problem to be not insoluble, though not yet solved.

Once we begin to look at earth as a space ship, the appalling extent of our ignorance about it is almost frightening. This is true of the level of every science. We know practically nothing, for instance, about the long-run dynamics even of the physical system of the earth. We do not understand, for instance, the machinery of ice ages, the real nature of geological stability or disturbance, the incidence of volcanism and earthquakes, and we understand fantastically little about that enormously complex heat engine known as the atmosphere. We do not even know whether the activities of man are going to make the earth warm up or cool off.

At the level of the biological sciences, our ignorance is even greater. Ecology as a science has hardly moved beyond the level of bird-watching. It has yet to become quantified, and it has yet to find an adequate theory. Even to an economist, its existing theoretical structures seem fantastically naive, and when it comes to understanding the world social system or the sociosphere, we are not only ignorant but proud of our ignorance. There is no systematic method of data collection and processing, and the theory of social dynamics is still in its first infancy.

The moral of all this is that man must be made to realize that all his major problems are still unsolved, and that a very large and massive intellectual effort is still necessary to solve them. In the meantime we are wasting our intellectual resources on insoluble problems like unilateral national defense and on low-priority achievements like putting a man on the moon. This is no way to run a spaceship.