Just Money Profiles

Christine Desan, Managing Editor

Christine Desan is the Leo Gottlieb Professor of Law at Harvard Law School and the author of *Making Money: Coin, Currency, and the Coming of Capitalism* (Oxford University Press, 2014). The book argues that a radical transformation in the way societies produce money ushered in capitalism as a public project.

Desan's research more generally explores money as a constitutional (small "c") project that structures material life and governance. Earlier work focused on the adjudicative power of legislatures and sovereign immunity. Desan teaches courses on constitutional law of money, globalization as a monetary phenomenon, and monetary reform. She is co-founder of Harvard's Program on the Study of Capitalism, an interdisciplinary project that brings together classes, resources research funds, and advising on that subject and has

From the creating money as a direct credit (coined or not) that linked the political community to members, sovereigns moved to intermediating the public medium. They issued it through investors, nascent central bankers, and enshrined the profit motive as the incentive that regulated money's production. Those innovatio ms exploded old strictures on money creation and revolutionized attitudes towards self-interest.

taught the Program's anchoring research seminar, the Workshop on the Political Economy of Modern Capitalism, with Professor Sven Beckert (History, Harvard University) since 2005. Desan is on the Board of the Institute for Global Law and Policy and is an editor of the journal *Eighteenth Century*

Studies. She has been a fellow at the Radcliffe Institute for Advanced Study and at the Massachusetts Historical Society, and served on her municipality's committee on campaign reform for ten years. Recent work includes edited volumes *A Cultural History of Money in the Age of*

Enlightenment (2019), and, with Sven Beckert, *American Capitalism: New Histories* (Columbia University Press, 2018).

Money on the Left Podcast: Money as a Constitutional Project with Christine Desan

Money on the Left Podcast

Hosts: Scott Ferguson, William Saas and Maxximilian Seijo

The *Money on the Left Editorial Collective* presents a classic episode from our archives along with a previously unavailable transcript & graphic art. In this episode, we are joined by Christine Desan, Leo Goettlieb professor of law at Harvard Law School to discuss her excellent book, Making Money: Coin, Currency, and the Coming of Capitalism. Desan argues that money is a constitutional project, countering the dubious “commodity” theory common to contemporary economic and legal orthodoxies. Desan develops her constitutional theory of money through rigorous historical examinations of money’s evolution, from medieval Anglo-Saxon communities to early-modern England to the American Revolution and beyond.

You can find a link to the podcast and complete transcript here: https://mronline.org/2021/01/-01/money-as-a-constitutional-project-with-christine-desan/.

The Key to Value: The Debate over Commensurability in Neoclassical and Credit Approaches to Money

Author: Christine Desan

Neoclassical and credit approaches to money represent dramatically different theories of value. For many within the neoclassical tradition, the market exists as a conceptual enterprise – a place where independent agents compare and rank real goods, exchanging them afterwards to in accord with their preferences. That theory reflects a particular approach to value, identifying it as a pre-existing quality ranked by individual choice. The theory also generates a particular approach to money, assuming that a term of measurement naturally imports commensurability into evaluation.

By contrast, public credit approaches suggest that creating commensurability in a world heterogeneous in so many aspects is a profound challenge. Modern political communities have responded by substantiating value in a unit that is cognizable to all: they issue credit tokens that can be set off against widely shared public obligations. That means, first, that value cognizable in money follows rather than pre-exists market activity: it is produced as individuals use credit money as a medium. Second, because value is produced as people use money, the character of that money matters: its nature as credit carries with it an allocative bias. Both governments and private lenders (banks) advance credit in order to spend selectively: they create a credit medium by providing credit to some people relative to others. According to the way money is created, definitionally we might say, individuals will not be equally situated in the process that generates prices. Decisions about value are made in the wake of that fact. The essay closes by contrasting the democratic visions at stake in neoclassical and public credit approaches to value. That exercises suggests that, if the public credit approach better describes money and market, their potential can only be realized by promoting rather than assuming equality.

Christine Desan, The Key to Value: The Debate over Commensurability in Neoclassical and Credit Approaches to Money, 83 *Law and Contemporary Problems* 1-22 (2020)
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The Constitution and the Fed after the COVID-19 Crisis

Authors: Christine Desan and Nadav Orian Peer

The COVID-19 financial response brought a seismic shift in the allocation of authority between Congress, the Treasury, and the Federal Reserve. Between them, those power centers provide the public structure for the material economy. Congress claims the “power of the purse” or the authority to appropriate public funds; the Treasury holds responsibility over the spending and taxing that puts those orders into effect; and the Federal Reserve literally makes the money we use by creating the dollar reserves that anchor our sovereign money supply. So when events re-order the relationship between Congress, the Treasury, and the Federal Reserve, the change goes to the heart of our economy as well as our constitutional system.

We understand that emergencies call for action early and explanations later. But the Financial Crisis of 2008 realigned the triangle of authorities we identify above in lasting ways. The COVID-19 Crisis looks to have restructured (collapsed?) that triangle altogether. To date, the federal government’s responses displace the authority of Congress for discretion held by the Treasury. They load the Fed with an enormous amount of ammunition that will determine who wins (large corporations? indebted fossil fuel companies?), and who loses (minority businesses and lenders? low income tenants? educational institutions?). They operate through a financial infrastructure that is inaccessible to many Americans and opaque to virtually all others.

So even as emergency operations continue, it’s time to start taking stock. We focus here on a series of lending facilities at the center of the government’s COVID-19 response. Established by the Fed, these facilities are anticipated to lend $4.5 trillion over the coming months (see below). The Treasury’s expanded powers lie in the key role that Treasury guarantees play in determining the lending that will be done by these new facilities. We do not know how the Treasury selects assets and industries to guarantee, how it sets terms for the guarantees, or who is in the room as those terms are hammered out. Surely the Fed and the Treasury are working together but where, then, is the Fed’s independence? And where is Congress as the details of an amount – $4.5 trillion – as large as the federal budget in 2019 – are being determined?

1. *The Constitution and Traditional Lender of Last Resort*

First, let's return to basics. Why does the Federal Reserve wield such enormous authority to dispense credit in money and how is that power supposed to be channeled? How is that authority consistent with the separation of powers that should leave critical appropriation responsibilities with Congress? And how do the COVID lending facilities square with the fact that the Fed is supposed to operate within safeguards that give it political independence from the Treasury?

Congress established the Federal Reserve to support the nation's banking system. By the early 20th century, Congress had endorsed commercial banks as the vehicle for amplifying sovereign base money: banks could make credit, denominated in dollars, available when they lent. The idea, argued in iconic form by Walter Bagehot, was that those lenders could make the best substantive decisions about how to allocate credit; acting with local knowledge, they could judge which borrowers were most likely to be productive.[1] But a decentralized network of banks was also fragile. Banks operate by giving out long-term loans in the form of deposits that can be used at any time – "maturity transformation" in the jargon. Bank panics, where depositors withdraw funds en masse, can destroy banks even if they have only good loans on their books.

In response, Congress designed the Fed as a "lender of last resort." The central bank was supposed to extend a life-line to banks to get them through a liquidity crunch so that they could continue as fundamentally solvent institutions. The Fed can do this because, unlike any other public or private actor, its balance sheet is unconstrained. While other actors must borrow, the Fed has the legal power to issue money: it makes the cash value of the longer-term loans held by stressed lenders immediately available in dollars that the government recognizes as its own liability to those lenders so that they can ride out a panic. See Secs. 10B and 13(3) of the Federal Reserve Act, 12 U.S. C. 347(b); 12 U.S.C. 343. Note that the Fed's capacity means that it is, effectively, creating money – a capacity that could threaten Congress's power over appropriations.

Given its enormous power, the Fed was controversial from the start. Traditionally, Congress has jealously guarded its power over the purse, including its authority to create sovereign money. That authority to spend public resources lies at the root of our democracy. In fact, the claim by young colonial legislatures that they had the authority to tax and spend was the matter that split Americans from British rule in the eighteenth century.[2] Fast forward to the early twentieth century: we can see how the Fed's design as a fallback lender for banks was essential to its political acceptance. The Fed was understood merely as a backstop for banks making the real decisions, as opposed to a source of funds that would compete with Congress.

Consistent with that theory, lender of last resort operations typically extend only to supporting solvent commercial banks. We emphasize that legally, those operations traditionally involve lending, not purchases. As long as the banks are solvent, any losses on bank loans would accrue to the borrowing bank and its investors, not to the Fed. Insofar as those Fed lending operations aim to protect the credit system from contagions of panic, as opposed to changing the character and destinations of private lending, they can be understood as instrumental support to the network of private banks. We'll come back to the oddity of this narrative as an account of the Fed's authority, but take its logic seriously here for the purpose of exposing recent changes.

2. *The Constitution and Traditional Monetary Policy*

Central banking posed a second challenge to constitutional bounds. Following European models, Congress gave the Fed authority to purchase assets directly, rather than merely lend. (See Section 14 of the Federal Reserve Act, 12 U.S.C. 353-359.) That authority allowed the Fed to conduct open market operations; over the course of the twentieth century, that activity became an essential tool in monetary policy over interest rates. But Section 14 authority also threatens congressional sovereignty over spending. For one, it clearly creates money: the Fed buys assets by crediting a seller with an increase in dollar credit. (Technically, this is done by crediting the seller's bank account at the Fed with newly created reserves). Moreover, purchasing assets obviously intervenes into the market for those assets, changing their supply and, in turn, affecting asset prices.[3]

Here, a series of safeguards, both conceptual and legal, have long kept the Fed's purchasing power from breaking the surface of constitutional concern. Again, they operate to categorize the Fed's purchasing authority as a stabilizing tool.

On the conceptual side, Americans adopted approaches to central banking that cast purchasing operations as simply supporting a healthy market for credit. As opposed to "picking winners and losers," that activity was seen as loosening or tightening credit conditions in general. In fact, the Fed seemed to control those conditions with modest asset purchases that, by successfully affecting the price of credit, spread economy-wide.

For good measure, Section 14 limited Fed discretion by specifying the assets eligible for purchase, primarily U.S. treasuries, and obligations "fully guaranteed by the United States as to the principal and interest." In the case of purchases, as opposed to loans, the Fed directly bears the risk of profit or loss. In the absence of the private filter, Fed purchases seem an awful lot like spending decisions, and those should reside in Congress. By restricting Fed purchases (mainly) to assets already fully backed by the U.S., Congress can be understood as preserving its power of the purse: such obligations have already been vetted by Congress.[4]

The same reasoning – understanding the Fed's work as reactive and constrained – went some distance towards distinguishing its responsibilities and role from those of the Treasury department. The economic imagination emptied "monetary policy," rightly pursued, of political content compared to fiscal policy on spending. Here, limits on the President's removal power over the governors and Reserve Bank presidents kick in.[5] That constraint arguably liberates the Fed to hold its own course without bowing to political demands for monetary stimulus, a concern conventionally captured by the notion that the Fed should operate independently. We note here that this traditional conception of central bank independence fails to capture important external influences to which the Fed is subject, including cooperation with Treasury in wartime, sensitivity to Congressional pressures during recessions, as well as accommodation of private banks in monetary policy implementation.[6] These pressures notwithstanding, the division of labor between fiscal and monetary policy has long oriented expectations and argument about who was wielding power and how they did so.

3. *The Constitution and the 2008 Crisis*

The 2008 crisis brought about significant changes in lender of last resort and monetary policy alike. From the constitutional perspective we sketched above, those 2008 changes – changes that seemed so transformative in their time—now appear subtle in comparison to the COVID-19 response.

First, the Fed expanded its lender of last resort support from commercial banks to "shadow banks" under its emergency Section 13(3) authority.[7] That expansion was arguably consistent with the traditional ways of distinguishing Fed lending of last resort from congressional spending. Specifically, 2008

Fed lending was still limited to entities that created liquid forms of credit to end-borrowers. Notable exceptions aside,[8] the supported shadow banks were, by and large, considered solvent, so the notion of a "private filter" over credit decisions remained.[9] What is more, those shadow banks suffered from run-like dynamics that could destroy the money supply and cripple the economy. So, while the recipients of support were new in ways that triggered various anxieties, the constitutional modes of legitimacy actually remained comfortably familiar.

Second, the Fed innovated in making monetary policy. Traditionally, the Fed had used its ability to control short-term borrowing costs between banks – the "fed funds rate" – to influence a range of longer-term borrowing costs in the economy, and ultimately, overall economic conditions (employment, price level, growth). With interest rates already at the zero bound and the financial sector in disarray, Bernanke and Yellen discovered that the Fed's ability to "transmit" monetary policy through the Fed funds rate had run down. Enter Quantitative Easing, the Fed's Section 14 attempt to shape long-term borrowing costs more directly given economic conditions. Gone were the smallish purchases to control the fed funds rate. In their stead, the Fed purchased two trillion in long-term treasuries and agency mortgage-backed securities (MBS) to reduce their supply, thereby lowering the yield investors demanded to hold them. In turn, lower yields on these public safe-assets would help reduce rates on long-term private borrowing.

Radical as that seemed at the time, note again the continuity with traditional modes of constitutional legitimacy. Despite its enormous size, QE was carried out through Section 14, using assets that were *already backed* by the U.S. in ways vetted by Congress or, in the case of agency MBS, that had a tenable claim to that status.[10] Limiting QE to these assets meant minimizing potential encroachment on the power of the purse.

4. *The Constitution and COVID-19 Liquidity Facilities*

The Fed's response to the COVID-19 crisis breaches traditional modes of constitutional legitimacy which, miraculously, survived the 2008 vintage. Following that precedent, the Fed in March 2020 began by authorizing emergency lending to shadow banks under 13(3) (e.g., here, and here), and launching a new QE in treasuries and agency MBS. But by month's end, these once extraordinary measures seemed woefully inadequate to the distressed COVID-19 economy. Enter the Fed's new COVID-19 liquidity facilities, first announced on March 23, following the initial congressional impasse, and expanded in various ways since. Those facilities subvert the traditional modes of constitutional legitimacy in a number of ways.

First, the Fed's facilities are offering support not to credit providers but to the end-borrowers: corporations, local and state government, consumers etc. These recipients are not in the business of maturity transformation and are not vulnerable to runs. Here, recall that its use to support private credit allocation and to prevent runs was the condition that distinguished central bank money creation from Congressional spending. With COVID-19, this limitation is gone.

Second, setting some nuance aside, the COVID-19 facilities are structured in ways that leave each facility directly exposed to the credit risk of end-borrowers (corporations, local and state government, consumers). That risk further undermines the appearance that real decisions over credit, like a private filter, stay with private lenders. COVID-19 facilities engage in a kind of credit distribution that makes it impossible to ignore that public authority is "picking winners and losers." That sounds a lot like power of the purse.

Third, while the COVID-19 facilities are stylized as doing Section 13(3) loans of last resort, those facilities' direct exposure to borrowers makes us wonder whether they are really making "purchases" regulated by Section 14 – a mashup that breaks new statutory ground as a kind of "Section 14(3)." In some facilities, like the Secondary Market Corporate Facility, the facility will literally purchase corporate bonds in the open market. In other facilities, the transactional structures are more complex, but the result is similar (again, leaving some nuance aside[11]). That is, the goal of the facilities is reminiscent of QE, and, at an anticipated $4.5 trillion, they are certainly QE sized. Here at the COVID-19 vanguard, lender of last resort support and monetary policy are blending in to the point they are indistinguishable.

Recognizing that the new facilities are making de facto purchases also exposes that they are reaching far beyond the assets eligible for purchase under Section 14, primarily treasuries and debt fully guaranteed by the U.S. With minor exceptions, the corporate, local and state government, and consumer debt purchased by the Fed is clearly not Section 14-eligible. Fed officials are likely aware of this: the transactional structures they chose seem like a kind of regulatory arbitrage, one that dresses-up Section 14 purchases as Section 13(3) loans. The Fed can, for example, set up a special purpose vehicle (SPV), *lend* to that SPV, and have the SPV *purchase* a corporate bond. That may or may not comply with the statutory terms in some superficial sense, but it leaves the deeper constitutional legitimacy of the facilities just as vulnerable. In the 2010s QE, Section 14's requirement that assets eligible for purchase be guaranteed by the U.S. worked to maintain ultimate vetting with Congress. Clearly, this no longer holds.

Finally, the Fed's lending facilities appear to depend on political direction from the Treasury. This development follows from the requirements in Section 13(3), added by Dodd-Frank, that the Fed receive "the prior approval of the Secretary of the Treasury" before establishing a lending facility, and even more crucially, that "security for emergency loans is sufficient to protect taxpayers from losses." With the Fed providing direct support to end-borrowers in the distressed COVID-19 economy, the no-loss requirement becomes a tall-order. Traditional lender of last resort meant a private capital buffer between the Fed and the end-borrower. That buffer is now gone, and the Treasury has stepped into its place through use of its Exchange Stabilization Fund (ESF), first established during the Depression to stabilize the dollar as the U.S. abandoned the gold standard. The legalities of the ESF raise their own questions, which are beyond our scope here.[12]

Use of the ESF began with a deceptively small amount – $50 billion in March 2020.[13] If one assumes anticipated losses of ~10% of lending, $50 billion in loss guarantees can support Fed lending to the tune of $500 billion. No small change, but nowhere near the size required. So as part of the CARES Act (passed March 27), Treasury requested from Congress – and received – an appropriation for $450 billion to the ESF. Now, with this additional $450 billion, the Treasury can support $4.5 trillion (10X) in Fed lending.[14] That is, with a relatively small appropriation of $450 billion, the Treasury and the Fed get to determine whether and how to use an additional $4.5 trillion, including the amount added by Congress to the ESF and the lending done when that amount is used as loss protection.

5. *Closing Thoughts: The Constitution and Monetary Reform*

We are left to ask how innovations in the Fed's lending and purchasing authorities fit with the constitutional framework we had come to assume. In particular, do they preserve the appropriations authority to Congress? And is there a coherent division of responsibilities between the Treasury and the Fed, one that renders presidential powers transparent and justifies the Fed's relative insulation from popular accountability?

We fear that Congress has basically delegated the power of the purse to the Treasury. Treasury's discretion over the character of the new lending facilities is extremely broad and the oversight mechanisms correspondingly weak. This arrangement marks a fundamental reorientation in the relationship between the legislative and executive branch. Recall that Congress initially deputized the Fed, not the Treasury, to engage in money creation, according to a theory that came to distinguish its rescue and policy roles as stabilizing operations. Contrast the situation today: the Fed now uses its enormous authority to create money according to the Treasury's judgment about how to save the economy.

The arrangement marks an equally important reorientation in the relationship between the Treasury and the central bank. The Federal Reserve and the Treasury are, between themselves, determining what sectors to support and, as importantly, how to support them – under what conditions, with what distribution of costs and risks, and through what kind of process. Despite their crucial nature, we have no idea how the conditions defined by the "term sheets" are determined or by whom.[15]

We are also concerned that the arrangement obscures the exercise of power by the Treasury, while misusing the notion that a central bank should have independence. The latter is an organizing principle of modern central banking, intended to insulate the power of money creation from improper manipulation for short-term electoral gain. What we're seeing now is a kind of backward use of central bank independence. On the one hand, the Fed, which is timid to make loans that can result in losses, is taking cover in loan guarantees from the politically accountable Treasury. On the other hand, the Treasury, which is effectively controlling $4.5 trillion in Fed lending (based on the original ESF amount, expanded by the CARES Act appropriation), is taking cover in the notion that lending is administered by the Fed, a neutral institution, based on Fed expertise, rather than political influence. In this way, the Treasury gets to avoid the very same political accountability that the Fed cites as justification for its risk taking.

What is to be done? For starters, we believe it would be far better if Congress itself allocates the risk capital among Fed programs, and takes true accountability for its decisions. But that injunction may well have been mooted by events: the pandemic requires fast action and collaborative decision-making. Congress does not seem capable of either. This raises the possibility of more structural reform.

The narrative that located the Fed as simply backstopping private initiative and stabilizing the wider economy has always been a fiction. Most dangerously, it arrested an intense American debate about how we should make and allocate credit in money – public or partly public banks?[16] federal provision of credit to farmers or homeowners?[17] money directly issued outside of banks? postal banking? It romanticized as local lenders those that would consolidate into financial behemoths. And it ordained the investor instruments, modes of profit, and particular markets that would be supported.

Our point here is not that the COVID-19 response represents a fall from grace, from a time when central banks kept to their proper and humble role. Our point is that COVID-19 makes impossible to ignore what we argue has always been the case: money creation is inherently political and greater democratic input is required into its large distributive outcomes.

If we want to understand the distributive impact of these huge lending facilities, we need to analyze the way Fed credit flows, the targets it supports, as well as the communities it leaves behind. At broadest level, Fed facilities appear to privilege lending to corporations, as well as to those established businesses and consumers fortunate enough to enjoy access to mainstream financial services.

Communities of color – where centuries of discriminatory policies made such access painfully lacking – once again appear to be left out. According to Fed data, black families are 3.5 times more likely to be unbanked than white families (14% and 4% respectively). A staggering 35% of black families is underbanked, as compared to 11% of white families. Credit denial rates for black families are substantial (59% and 41% for families earning less than $40,000 and $40,000-$100,000 respectively) and double the size of their white counterparts. These black communities, that are so much less likely to benefit from the Fed's facilities are also those hardest hit by COVID-19, in terms of public health and economic distress alike. As lawyers, we believe it is important to scrutinize the civil rights implications of government channeling of emergency lending through channels that inherently disfavor minorities.

Minority, and other vulnerable communities, will also suffer disproportionately from the emerging crisis in municipal finance, and the disruption in essential social services it will bring. While we welcome the Fed's Municipal Liquidity Facility, the amounts committed remain woefully inadequate (only 20% of 2019 revenues). We are struck by the ways in which term sheets provide credit to different actors – e.g., municipalities and corporations – on widely different terms, without apparent justifications. Here at JustMoney.org, we plan to continue analysis into the distributive outcomes of Fed COVID-19 lending in a number of ways. We will update this spotlight as we do so.

Twice in two decades, shocks have destabilized our financial and economic system with such violence that the Fed's action, directed in convoluted ways by the Treasury and questionable in terms of constitutionality, became necessary. There could be no more clear demonstration that we need to restructure our financial architecture. Neither the crises, nor their distributive effects, nor the way their remedy eludes accountability, are sustainable in a democratic society.

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[1] Walter Bagehot, *Lombard Street: A Description of the Money Market* (New York: John Wiley and Sons, Inc., 1873, 1999), 89.

[2] Jack P. Greene, *The Quest for Power; the Lower Houses of Assembly in the Southern Royal Colonies, 1689-1776* (Chapel Hill: University of North Carolina Press, 1963); Terry Bouton, *Taming Democracy: "The People," The Founders, and the Troubled Ending of the American Revolution* (Oxford, UK: Oxford University Press, 2007).

[3] Traditional monetary policy was carried through a combination of outright purchases, and repurchase agreements with primary dealers, which are purchases in name, but secured loans in essence. Both types of operations shape asset prices, though the effects of the former method (outright purchases) are generally considered greater. The COVID-19 developments we discuss below are generally similar to outright purchases.

[4] Contrast this with collateral the Fed accepts as a lender of last resort to commercial banks under Sec. 10B, which is extremely broad. Why this difference you ask? Recall that when the Fed lends to a commercial bank, that bank's capital protects the Fed from losses. Outright purchases involve no such capital.

[5] See 12 U.S.C. sec. 242; 248(f), 614. For analysis of the weirdly conflicting character of presidential control over Bank presidents and the status of the Chair of the Board of Governors, see Peter Conti-Brown, "The Institutions of Federal Reserve Independence," *Yale Journal on Regulation* 32, no. 2 (2015): 302-03, 3, http://digitalcommons.law.yale.edu/yjreg/vol32/iss2/3.

[6] See *e.g.*, Richard H. Timberlake, *Monetary Policy in the*

United States: An Intellectual and Institutional History (Chicago: University of Chicago Press, 1993), 300-15 (wartime coopration with Treasury); Sarah Binder and Mark Spindel, Independence and Accountability: Congress and the Fed in a Polarized Era, (2016) (considering political sensitivity of Fed to congressional disagreement); Kumhof and Jakab, JustMoney, Banking Roundtable, Jan 29, 2020 (considering pressure for continuing expansion of reserves to accommodate private banks). See also the statutory qualification to the Fed's authority in 12 U.S.C. 246. Its reach is uncertain as far as we know.

[7] In a nut shell, shadow banks are institutions that issue money-like liabilities to fund holdings of securities. While these money-like liabilities are subject to run risk similarly to commercial banks, shadow banks lack a bank charter, and do not enjoy deposit insurance, nor access to Fed lending of last resort under ordinary Section 10B. authority.

[8] One such interesting exception is the Fed's facilitation of the Bear Stearns-JPMC merger through a special purpose vehicle known as Maiden Lane LLC (more on Fed SPVs below). Maiden Lane did not merely *lend* to Bear, but *purchased* $30 billion of its assets. JPMC apparently found these assets too risky to assume in the merger, and was only willing to extend a small amount of loss protection ($1 billion, or 3%) to the Fed. This arrangement violated norms around lender of last resort, and was part of the impetus for Dodd-Frank amendments of Section 13(3). A full decade later, the Maiden Lane portfolio was liquidated at a small profit.

[9] It is telling that when the government contemplated *purchasin*g bank assets –a plan later turned into *recapitalization* of banks by the Paulson Treasury– the plan was not carried through Federal Reserve lender of last resort authority. The so-called Troubled Assets Relief Program (TARP) was subject to direct congressional appropriation in the Emergency Economic Stabilization Act of 2008.

[10] The legal basis for Fed purchases of agency MBS raises important questions. Fannie Mae and Freddie Mac – the GSEs issuing the agency MBS – entered government (FHFA) conservatorship in Sept. 2008. The legal framework for conservatorship is complex and includes the Housing and Economic Recovery Act of 2008 and a series of Senior Preferred Stock Purchase Agreements. While various forms of support were extended to the GSEs, as far as we know, the government never provided permanent blanket guarantees of their liabilities. This raises the possibility that Fed lawyers were (and still are) willing to interpret Section 14 in ways that appear to go beyond the text. See 12 U.S.C. 355.

[11] The nuance comes in two flavors, light and medium. An example of nuance light is the Mainstreet Loan Lending Program, which requires financial institutions to retain relatively small participations (5%-15%) in the business loans they are essentially selling to the Fed. An example of nuance medium is the Term Asset-Backed Securities Facility (TALF), which provides non-recourse loans, but requires haircuts of 5%-22%. This arrangement essentially operates as a Fed purchase, with the haircut amount acting as limited loss protection to the Fed (In effect, this works similarly to Maiden Lane, discussed in note 8, an arrangement that even in 2008 pushed the envelope of legality).

[12] The Gold Reserve Act (31 U.S. Code § 5302) allows the Secretary of the Treasury, with the approval of the President, to “deal in gold, foreign exchange and *other instruments of credit* and securities the Secretary considers necessary.” In 2008, the Treasury controversially used this authority to guarantee the money market fund industry. Congress was upset, and attempted to prevent the recurrence of such guarantees for the money fund industry. That didn’t help much. The provision of $10 billion in ESF loss protection to the Fed’s Money Market Mutual Fund Facility (MMLF) in March 2020 has a similar effect to the 2008 guarantees.

[13] By our tally: $10 billion equity investment in the Commercial Paper Funding Facility (March 17), $10 billion in loss protection to the Money Market Mutual Fund Liquidity facility (March 18; note this facility is of a more "traditional" 2008 variety); and then, in the March 23 announcement, $10 billion in loss protection to each of the following: the Primary Market Corporate Credit Facility, the Secondary Market Corporate Facility, and the Term Asset-Backed Securities Loan Facility. These amounts were increased to about $200 billion subsequent to the passage of the CARES Act on March 27. Note that prior to the CARES Act, the ESF had only $40 billion in equity. Depending on the size of losses anticipated on the $50 billion in loss protection, the ESF may have been technically insolvent during that initial period.

[14] The approximate 10-to-1 ratio has been assumed in various Fed and Treasury statements. See, e.g., Chair Powell's congressional testimony on May 19, 2020 (here at 1:11:50).

[15] An aside here: It's not clear whether the Treasury's determination to provide loss protection to Fed facilities neutralizes the legislative requirement that the Fed take "security for emergency loans …sufficient to protect taxpayers from losses." Section 13(3), 12 U.S.C. 343. The CARES Act provides in Section 4003(c)(3)(B) that "For the avoidance of doubt, any applicable requirements under section 13(3) of the Federal Reserve Act (12 U.S.C. 343(3)), including requirements relating to loan collateralization, taxpayer protection, and borrower solvency, shall apply with respect to any program or facility described in subsection (b)(4) [Treasury supported facilities]." On the other hand, Congress's grant to Treasury of authority to provide loss protection suggests that the legislature may consider that lending facility losses up to that ceiling do not violate the Section 13(3) prohibition. In that sense, Congress may be creating a caveat to the normal operation of Section 13(3). In accord with that reading, neither legislators nor Treasury department officials

seem focused on the constraint imposed by the provision. Rather, legislators in the first oversight hearing pressured Fed Chair Powell and Treasury Secretary Mnuchin to take more, not less, risk.

We flag and set aside language in the CARES Act, Sec. 4020,(b)(2), to the effect that the Oversight Committee should determine whether the Fed/Treasury activities were effective in "minimizing long-term costs to the taxpayers and maximizing the benefits for taxpayers." In our view, the fact that this language concerns congressional oversight indicates that it does not alter the substantive responsibilities of the Fed under Section 13(3).

The bottom line in our view: the tension between the dictates of Section 13(3) and those of the CARES Act add to our argument that the current solution exposes the fragility and inadequacy of the current architecture.

[16] See also Edwin J. Perkins, *American Public Finance and Financial Services, 1700-1815*, Historical Perspectives on Business Enterprise, (Columbus: Ohio State University Press, 1994), 236-38.

[17] See, *e.g.*, St. Louis Convention Southern Alliance, "Report of the Committee on the Monetary System on the Sub-Treasury Plan," in *A Populist Reader*, ed. George Brown Tindall (New York: Harper Torchbooks, 1966).

[Recall This Buck I]: Chris

Desan on Making Money

Recall this Book Podcast Talks with Christine Desan

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This is the first of several RTB episodes about the history of money. We are ranging from the earliest forms of labor IOUs to the modern world of bitcoin and electronically distributed value. Our idea is that forms matter, and matter in ways that those who profit from those forms often strive to keep hidden. Today, we begin by focusing on the rise of capitalism, the Bank of England, and how an explosion of liquidity changed everything.

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We are lucky to do so with Christine Desan of Harvard Law School, who recently published *Making Money: Coin, Currency, and the Coming of Capitalism* (Oxford University Press, 2014). She is also managing editor of JustMoney.org, a website that explores money as a critical site of governance. Desan's research explores money as a legal and political project. Her approach opens economic orthodoxy to question by widening the focus on money as an instrument, to examine the institutions and agreements through which resources are mobilized and tracked, by means of money. In doing so, she shows that particular forms of money, and the markets within which they circulate, are neither natural or inevitable.

You can find the episode here: https://recallthisbook.org/2020/03/20/23-recall-this-buck-i-chris-desan-on-making-money-ef-jp/

C. Desan, The Power of Paradigms in Histories of Economic Development

March 12, 2020

Christine Desan, Harvard Law School

An iconic article published by Douglass North and Barry Weingast in 1989 identified the growth of banking in early modern Britain as a development "for pooling the savings of many individuals and for intermediation between borrowers and lenders." The distinctive contribution of banks, argued the authors, was that they "brought individual savings into the financial system." Men were "less concerned than their fathers

. . . to keep quantities of coin, bullion, and plate locked up in safes or buried in their orchards or gardens."[1]

For most of the last century, the intermediation paradigm has dominated popular accounts of banking. That approach to banking has, likewise, saturated histories of the industrial revolution. In its light, the change in finance that mattered for economic development seemed clear: the British triumphed by making the world safe for investment. That commonsense has obscured a fundamentally different possibility: the key breakthrough may have been the creation of novel forms of credit that acted as money (and near-money). In that case, the catalyst was the result of institutional change that produced unprecedented amounts and kinds of liquidity, not the accumulation and redeployment of existing funds.

Participants in this Roundtable have exposed the stakes in the debate over banking paradigms. For some, the choice of a paradigm shapes regulatory policy (Ricks; Tarullo).[2] For others, the stakes of the debate go to the way we understand public and private power (Hockett and Omarova). And for still others, the argument is about disciplinary assumptions (Marglin).[3] By contrast, Tucker and Jackson approach the debate as one of expositional fit, noting that certain explanatory approaches suit particular times or perspectives.[4] I want to add another dimension to the picture that is emerging from the debate. The paradigm adopted to understand banking informs – and is informed by – accounts of economic development as an historical reality. Those accounts have real impact on all the dimensions we have discussed, including regulatory policy, ideas about public authority and private agency, and the shape of economic orthodoxy. As for expositional fit, it appears to signal real and lasting differences in our operating assumptions.

For decades, scholars of the industrial revolution have assumed intermediation as axiomatic. The financial contribution to growth that must be explained is cast in quite literal terms as how the hoards so tangibly evoked by North and Weingast came to be unlocked, aggregated, and applied.[5] The intuition entrenched here is that the accumulation of savings and advance of that capital were the essential elements in the process. That orientation has deflected attention from the alternative suggested by the money-creation model. According to that model, the financial contribution to growth that must be explained is how institutions install monetary value in an accessible form, how that value is allocated and managed, and how those practices configure the productive life of a society. The intuition implicit here is that the design and provision of money made from credit, including cash that penetrated to the retail level for wages and payments to strangers, was an essential element, perhaps the essential element, of the breakthrough.

Recall that the economic development taken to be talismanic occurred in the early modern period, in northwestern Europe. “Between 1780 and 1870, Britain’s real GDP/person almost doubled. . . leaving the United Kingdom about 20% ahead of the Netherlands (previously the leading European country), 70% ahead of both France and Germany, and about a third higher than the United States.” The same development set Britain apart from China, Japan, and India.[6] Recent accounts have added that the breakthrough came after a slower but steady buildup in GDP over the previous decades.[7] The “great divergence,” as it came to be called, set scholars from a wide variety of disciplines a lasting puzzle: What drove such an extraordinary upturn in economic development? What had Britain done to set itself so far apart from other nations?

The debate has expanded and deepened over the last century, producing an enormously rich narrative. An organizing assumption, one congruent with the economic orthodoxy identified by Marglin, has also become clear. According to that assumption, the breakthrough – and economic growth generally – depend on production in the *real* economy, including drivers of individual preference. We look, therefore, to natural resources, labor, technology, and trade relations, empire and extraction, as well as cultural proclivities, religious commitments, and scientific learning, in order to understand economic growth. [8]

Saved assets – accumulated capital (wealth) – are part of the real economy and thus fit neatly into the story. And they logically enable investment. The place for finance seems to follow: it makes moving assets from savers to borrowers (i.e. entrepreneurs) possible –effective intermediation in other words.[9] According to North and Weingast, that activity occurred after the British made the world safe for investment by protecting rights to property, including property in financial assets.[10] More recent intermediation-oriented histories take a sharply different tack, noting that most early industrial enterprises depended on reinvested profits rather than bank finance.[11] (Ironically, they claim that finance thus posed something of a brake on English economic development.) In either event, the role for banks is clear. To the extent that they pooled savings and moved them to borrowers, they supported economic development *as intermediators*.[12]

But the finding that bank funding played a limited role in Britain's early breakout suggests that the intermediation approach, thus conceived, is incomplete at best. I want to suggest that it may actually mis-identify the distinctive contribution made by British banking. That contribution is better captured by the money-creation paradigm – I suspect that is because money creation is a more accurate description of what modern banks do. In the rest of the essay, I propose that a series of institutional innovations engineered by the

British in the early modern period led to an explosion of productive liquidity – an enormous increase in the money stock and near-money instruments. That explosion of liquidity fed exchange, expanded waged labor, fueled effective tax collection and law enforcement, and eased access to credit even for those unable to tap accumulated savings. The same institutional innovations channeled the profits of economic development, contributing to the severe distributive inequalities of the 19th century.

The argument, speculative but consistent with some of the richest descriptions of early British banking, is that the financial revolution in Britain was transformative *in kind*, not (or not only) in degree.[13] Contrary to the entrenched wisdom, the British did not merely develop existing forms of credit – bills of exchange, merchant clearing-houses, forms of forced public lending. They actively (and often accidentally) *re-made* credit so that it radically expanded the money stock and related forms of liquidity. The leap in productivity that scholars identify – in particular that jump in productivity that occurred between 1780 and 1820 – occurred just when British banking came into its own.[14] At that point, the Bank of England had developed into a powerhouse that added significantly to the monetary base. Britain's circulating public debt stabilized money markets that supported inter-bank lending to a swell of country banks. And those banks, later to convert to joint-stock banks, irrigated the late 18th and 19th century countryside with the most abundant retail money supply in European history.[15]

Here, I take Charles Kahn in this roundtable to agree that, given latent demand and potential supply, money creation from credit would be far more important to economic production than accumulated funds. And those conditions likely existed for centuries in Britain and much of Europe. The baseline for the modern explosion of liquidity was the wrenching monetary scarcity of the medieval world. There is copious evidence demonstrating how vexed that environment was at the level of everyday exchange. An expensive resource-intensive medium, insufficient small change, instability in existing supplies of coin, and uncertainty about their value – all meant that many ordinary transactions were difficult until at least the 17th century, when increased silver from the Americas eased problems (if only episodically) in England.[16] The unwieldy nature of a money stock tied to metal supplies made it difficult for governments easily to expand the amount of coined money and to spend for social welfare. Deflation, a force particularly destructive to borrowers, i.e., entrepreneurs, was a persistent damper on economic activity.[17]

Medieval forms of credit were not able to cure the problem. Neither the ingenious networks of trade credit established by merchants nor the experiments in city finance managed by Italian city-states remedied the difficulties that haunted exchange at the retail level nor the significant constraints on public spending.[18] Nor did British innovations remain true to existing mercantile credit forms, forms that are easy to conceptualize as modes of intermediation. Bills of exchange did not operate effectively as cash, nor evolve into it, as many accounts assume.[19] Nor was the Bank of England "patterned after the Bank of Amsterdam," as a recent account steeped in the language of intermediation suggests.[20] Rather than a clearinghouse for mercantile credit (including overdrafts), the Bank of England broke precedent and issued currency that could circulate among strangers.

The distinctive step taken by the British was to create a system that monetized both public and private credit in novel yet sustainable ways. We know many pieces of the story, but need to put them together into a new narrative, one about the explosion of productive liquidity that occurred in the early modern period. A brief look at the sequence illuminates the importance of money creation; it also undermines the argument that creating money out of credit simply collapses into intermediation.

Experimenting under wartime conditions, the British first commissioned the Bank of England to issue new bank notes against government debt. When the government accepted those notes back in payment, it recognized them as money on par with the Crown's own coin, ordaining them part of the monetary base. By 1800, that inflow added some £15 million of new money clearly treated as such to a coin supply of approximately £44million. Bank of England notes would surpass coin as a component of the money supply in the 19th century.[21]

Soon after the Bank's founding, the British government institutionalized markets for circulating public debt. Given the scarcity of currency, much of that debt issued in order to purchase goods, not to borrow existing money. The British then literally swapped the debt into equity, endured the debacle of the South Sea Bubble, and re-issued debt in ways that could be carried forward indefinitely at a relatively low interest rate. Unlike the Dutch, the British thus anchored new capital markets with national reach on the stabilizing medium of public debt.[22]

The short end of those markets, the money market for discounting bills, soon came to support inter-bank lending. Around 1750, banker-brokers began working there as agents for the burgeoning number of county banks. The London Clearing House was established in 1773 to carry the "rising volume of inter-bank payments" made through the money market, due in part to "the increasing country business."[23]

Country banking inaugurated a geyser of new cash within that network of supportive institutions. Tradesmen and industrialists began issuing their own notes in order to provide a means of payment to their employees and to buy local goods. Denominated in pounds, the notes often represented that value within retail loops of reciprocity: wages paid in notes could be spent on company products, shopkeepers paid in notes could return them to manufacturers for products to sell in their stores, strangers could accept and use notes given the hatchwork of exchange. Using the networked institutions that connected the countryside to London, users converted local notes into Bank of England money and coin.[24]

By the end of the 18th century, country banks had added another £10 million to the money stock; the quantity of notes rose steeply over the next two decades when British money was inconvertible into gold coin.[25] Employers had, in many other contexts, issued tokens and other money substitutes. In Britain, however, money creation by country banks became part of the national monetary architecture. Country bankers, London bill brokers, the Bank of England, and the British government had developed, or perhaps more accurately stumbled, into elaborating a country-wide, coordinated, and cash-abundant economy.

Over the course of the next several decades, the money supply, including bank-issued currency and corrected for inflation increased, some 8-fold.[26] Displacing country banks, modern joint-stock banks expanded lending in notes and deposits that could be used as cash effective immediately. By the end of the 19th century, those credit forms had surpassed Bank of England notes as components of the money supply (M1). Between 1688 and 2009, the order of expansion, corrected for inflation, was about 65-fold in the UK. That explosion of liquidity surely fueled a surge of exchange – aggregate demand at the retail level. It created funding opportunities that depended on the promise of productivity, rather than existing wealth. That promise was repayable in the same new money that financed productivity. It led to an upsurge in waged labor. It fed an expansion of government capacity along with revenue collection. And it secured the banking industry (including the central bank) as the source of all funds. The story comes full circle as the Bank of England developed its capacity as the anchor of the system and lender of last resort in the second half of the 19th century.

The roundtable picks up here with a debate about how we conceptualize banking. Calling an operation that permanently and exponentially expands the money supply “intermediation” strikes me as, at the very least, weird. It is much more apt to recognize the operation as money creation. What, then, is at stake in the term?

If the hypothesis above is right, overlooking the activity of money creation and/or conflating it with intermediation misleads us for at least three reasons:

First, it gets development wrong. It overstates the importance of accumulated capital, including foreign capital (as opposed to foreign exchange, an essential for imports but not wealth creation *per se*). And it understates the importance of money and credit as vectors of development. Along the way, it fetishizes the rights of creditors as putative holders of wealth rather than partners in a negotiation over the distribution of benefits from the credit architecture. Credible commitment is not irrelevant in my reading, but neither is it the solvent that simply releases investment into economic use.[27] For that matter, investment is not irrelevant either in my reading – but it could only amplify development once British banks had created the credit-based money that responded so powerfully to the immense demand for liquidity.

Second, the intermediation axiom gets money wrong. Money, and liquidity more broadly, appear in this period as newly remade institutions of credit. The legal and political design of those institutions made *all* the difference. Rather than doubling down on medieval instruments for moving assets, the British improvised in ways that created cash and forms of liquidity that moved between strangers. Engrossed with private law property rights to capital (its accumulation and transfer), we have disregarded the public project that exponentially swelled Britain's national money and elaborated the machinery that allocated it as credit.

Third, the intermediation axiom leaves us in the dark about the relationship between money and the "real" economy stressed by traditional approaches. Categorizing money as an instrumental factor that lubricates exchange but leaves it otherwise unaffected has cut off inquiry into monetary drivers of productivity – but also monetary drivers of distribution and distributive inequality. In order to understand those effects, we need to map the way our system of bank-based money creation channels funds to certain hands, assets, and opportunities.[28] Further, we need to explore the relationship between modern money's design and governance, the interaction between money made at the center with the social practices that deploy, sustain, and/or subvert that money[29], and the dynamics created by changing modes of money and finance when they cross borders on a global scale.

The stakes could not, in my view, be bigger.

1. Douglass C. North and Barry R. Weingast, "Constitutions and Commitment: The Evolution of Institutions Governing Public Choice in Seventeenth-Century England," *The Journal of Economic History* XLIX, no. 4 (1989): 825; see also Peter Temin and Hans-Joachim Voth, *Prometheus Shackled: Goldmith Banks and England's Financial Revolution After 1700*, (Oxford: 2012), 34. ↑

2. Ricks argues that intermediation vocabulary has nurtured a deregulatory orientation: insofar as its terms deny the distinct character of money creation by banks, the

intermediation approach elides the importance of entry restrictions traditionally attached to banking. By contrast, Tarullo argues that categorizing liquidity creation as either intermediation or money creation is unhelpful. For him, the underlying goal is regulating risky maturity mismatches that produce liquidity but install instability, whatever their label. ↑

3. According to Marglin, the main disagreement is between those who believe that money creation can affect only prices (orthodoxy) and those who believe that money creation can affect both prices and real output (heterodoxy). The orthodox view assumes that the central bank determines the quantity of reserves and the banking system magnifies that monetary base. In a system that is fully loaned up, money creation does not drive the real economy. ↑

4. Tucker argues that arithmetic "money multiplier" expositions comported more closely with monetary policy built around control of reserves. Jackson's point is that, from the point of view of a single banker, attention to deposits and their accumulation provides practical guidance that is extremely useful. ↑

5. I recognize that this is a particular way to conceptualize "intermediation." We might instead so label the act of taking onboard liquidity risk: the bank stands between (and in that sense intermediates) parties insofar as it ensures that long-term credits can be used immediately in the form of purchasing power. Understood that way, "intermediation" can co-exist with money creation. My argument is that, regardless of that reformulation, banking operations are routinely described in much more concrete terms as pooling and conveying the capital of investors to the hands of entrepreneurs. See Rondo E. Cameron et al., *Banking in the Early Stages of Industrialization; a Study in*

Comparative Economic History, (New York: 1967), 54 (criticizing approach to country bankers as "brokers" vs. "engines of credit"). The writing of no less than Walter Bagehot, the dean of central bankers, is a case in point: it celebrates Britain's distinctive banking structure in terms that emphasize the pooling and transferring capital, *e.g.*, Walter Bagehot, *Lombard Street: A Description of the Money Market*, (New York: 1873, 1999), 5-6, 11-12, even as it describes an enormously nuanced elaboration of credit that locates the origins of deposit banking in advances independent of savings (pp. 84-92), recognizes Bank of England issues as legal tender that can be issued without gold coin backing (pp. 22-25, 28-29), and argues that the British system ultimately shares essentials with the French approach that recognizes the public character of the national reserve (pp. 69-74). Banking operations understood as capital transfer appear a transactional matter. Understood as a construction of monetary credit, they represent an encompassing legal project of money creation by agents with public power and place. I thank Paul Tucker and Steve Marglin for discussion of these issues. ↑

6. Nicholas Crafts, "Forging Ahead and Falling Behind: The Rise and Relative Decline of the First Industrial Nation," *Journal of Economic Perspectives* 12, no. 2 (1998): 195. For discussion about whether England or Europe should be the unit of analysis, see Kenneth Pomeranz, *The Great Divergence: China, Europe, and the Making of the Modern World Economy*, (Princeton: 2000), 6-7. ↑

7. Crafts, "Forging Ahead and Falling Behind: The Rise and Relative Decline of the First Industrial Nation"; Nicholas Crafts and C. Knick Harley, "Output Growth and the British Industrial Revolution; A Restatement of the

Craft-Harley View," *Economic History Review* 45 (1992). ↑

8. According to leading histories of change, it was (variously) access to coal that made local manufacturing feasible, combined with imperial exploitation of the New World; it was a technological edge, sharpened by a profit-oriented allocation of resources and high labor productivity in research; it was improvements in transportation; it was the scientific culture; it was the high cost of labor paired with the cheap cost of energy. See respectively Pomeranz, The Great Divergence: China, Europe, and the Making of the Modern World Economy; Crafts, "Forging Ahead and Falling Behind: The Rise and Relative Decline of the First Industrial Nation", 197-198; Rick Szostak, *The Role of Transportation in the Industrial Revolution: A Comparison of England and France*, (Montreal and Kingston: 1991); Margaret Jacob, *The Cultural Meaning of the Scientific Revolution*, (New York: 1988); Robert C. Allen, *The British Industrial Revolution in Global Perspective*, (Cambridge 2009). ↑

9. By contrast, with a few notable exceptions, see Nuno Palma, "Money and Modernization in Early Modern England," *Financial History Review* 25, no. 3 (2018) and Forrest Capie, "Money and Economic Development in Eighteenth-century England," in *Exceptionalism and Industrialisation: Britain and Its European Rivals, 1688-1815*, ed. Leandro Prados de la Escosura (Cambridge University Press, 2004), accounts set aside money or money creation per se as if it is not worth investigation. Granted that it lubricates exchange, once we are beyond barter, money appears as a nominal factor. Changes in the money supply affect only price levels, eventually in ways that are deemed to equilibrate across markets. ↑

10. See North and Weingast, "Constitutions & Commitment";

Fernand Braudel, *Afterthoughts on Material Civilization and Capitalism*, (Baltimore: 1979). ↑

11. Temin and Voth, Prometheus Shackled: 35 (noting similar pattern in modern economies); see also Richard Sylla, "Comparing the UK and US Financial Systems, 1790-1830," in *The Origin and Development of Financial Markets and Institutions, From the Seventeenth Century to the Present*, ed. J. Atack and L. Neal (2009). ↑

12. Indeed, in ways that would feed into the deregulatory approach to finance, the more intermediation, the better. Temin and Voth, *Prometheus Shackled*: 35. ↑

13. See Cameron et al., Banking in the Early Stages of Industrialization; a Study in Comparative Economic History: 52-59; L. S. Pressnell, *Country Banking in the Industrial Revolution*, (Oxford: 1956). ↑

14. See Crafts, "Forging Ahead and Falling Behind: The Rise and Relative Decline of the First Industrial Nation", 195; Capie, "Money and Economic Development in Eighteenth-century England", 232. ↑

15. For amounts, see Christine Desan, *Making Money: Coin, Currency, and the Coming of Capitalism*, (Oxford: 2014), 399 n.152 (more than four-to-seven-fold expansion in money supply, corrected for inflation between 1831 and 1885, using figures from Rondo Cameron); Nuno Palma, "Money and Modernization: Liquidity, Specialization, and Structural Change in Early Modern England," *EUI Working Papers* (2016): 236. The Scottish story, a case of money creation along a somewhat different path, may be an even more extreme case of the phenomenon. See Cameron et al., Banking in the Early Stages of Industrialization; a Study in Comparative Economic History, 60-99. ↑

16. See generally Desan, *Making Money*; Thomas J. Sargent and François R. Velde, *The Big Problem of Small Change*,

(Princeton, NJ: 2002). For the impact of silver on English exchange, the failure of the Spanish to institutionalize such effects, and the continuing obstacles to monetary abundance in the 18th century, see Palma, “Money and Modernization in Early Modern England”, 235-251; Nuno Palma, “American Precious Metals and their Consequences for Early Modern Europe,” EHES Working Paper Series (European Historical Economics Society, 2019). ↑

17. See Palma, “Money and Modernization in Early Modern England”, 232-235, 243, 245, Fig. 4. ↑

18. See Carlo M. Cipolla, “Currency Depreciation in Medieval Europe,” *The Economic History Review* 15, no. 3 (1963): 417-418; Palma, “Money and Modernization in Early Modern England”, 238-241, 256, 261. ↑

19. Compare Kahn, this Roundtable, citing Stephen Quinn and William Roberds, “Responding to a Shadow Banking Crisis: the Lessons of 1763,” *Journal of Money, Credit and Banking* 47, no. 6 (2015) with Capie, “Money and Economic Development in Eighteenth-century England”, 227; Raymond De Roover, “New Interpretations of the History of Banking,” in *Business, Banking, and Economic Thought in Late Medieval and Early Modern Europe: Selected Studies of Raymond de Roover*, ed. Julius Kirschner (The University of Chicago Press, 1974), 216-217. Gorton is not to the contrary: the median amount of a bill in his sample is £100, or about £8000 in today’s pounds; a £10 bill, still worth about £800, was uncommon. See Gary B. Gorton, “Private Money Production without Banks,” NBER Working Papers (National Bureau of Economic Research, 2020), 15 n.34, 8-9, 14. Approaching bills as an instrument of exchange, Gorton does not consider how they functioned to link country bank notes into the larger payments system. ↑

20. Temin and Voth, *Prometheus Shackled:* 13-14. Temin and Voth do describe the Bank’s note issues later, *ibid*., 31. ↑

21. See Rondo Cameron, “England, 1750-1844,” in *Banking in the Early Stages of Industrialization*, ed. Rondo Cameron (Oxford University Press, 1967), 42; Capie, “Money and Economic Development in Eighteenth-century England”, 224; Desan, Making Money: 404-406. ↑

22. Larry Neal, “How It All Began: The Monetary and Financial Architecture of Europe from 1648 to 1815,” *Financial History Review* 7, no. 2 (October) (2000). ↑

23. DM Joslin, “London Private Bankers, 1720-1785,” *The Economic History Review* 7, no. 2 (1954): 184-185. By 1785, Bank of England dominated the discounting business. *Ibid*., 175, 185. ↑

24. Consider, for example, that a farmer might give a bill of exchange to a local banker for country bank notes, dictating that it be paid by an exporter who would hold the farmer’s proceeds in Bank of England notes. The local banker may meanwhile have discounted the bill on the London money market. ↑

25. Pressnell, Country Banking: 12-36, 136-189; Cameron, “England, 1750-1844”, 44. ↑

26. Desan, *Making Money*: 399. Geographical scope of the UK differs across these calculations but their order of magnitude is correct. ↑

27. See, e.g., Odette Lienau, *Rethinking Sovereign Debt: Politics, Reputation, and Legitimacy in Modern Finance*, (Cambridge, MA: 2014). ↑

28. Consider, for example, the distributive effects inherent in the fact that bank-created money issues only for

certain kinds of credit, Christine Desan, "The Key to Value: The Debate over Commensurability in Neoclassical and Credit Approaches to Money," *Law and Contemporary Problems* (forthcoming), and Mehrling's demonstration that that credit made in monetary form can be sustainably parked long-term in the purchase of financial assets. See, *e.g.*, Perry Mehrling, "Payment vs. Funding: The Law of Reflux for Today," INET Working Paper No. 113 (January 28, 2020). ↑

29. See David M. P. Freund, "State Building for a Free Market: The Great Depression and the Rise of Monetary Orthodoxy " in *Shaped by the State: Toward a New Political History of the Twentieth Century*, ed. Brent Cebul, Lily Geismer, and Mason B. Williams (University of Chicago, 2019). ↑

Banking: Intermediation or Money Creation

Banking: Intermediation or Money Creation

Prompt for Discussion

Contributors: Morgan Ricks, Marc Lavoie, Robert Hockett, Saule Omarova, Michael Kumhof, Zoltan Jakab, Paul Tucker, David Freund, Charles Kahn, Daniel Tarullo, Stephen Marglin, Howell Jackson and Christine Desan, Sannoy Das

Commercial banks are, indisputably, at the center of credit allocation in virtually all modern economies. Astonishingly, however, it remains controversial exactly how banks expand the money supply.

According to one view, banks operate as intermediaries who move money from savers to borrowers. The basic idea is that banks extend the monetary base by lending out of accumulated funds in a reiterative way. In round 1: a bank takes a deposit, sets aside a reserve, lends on the money; round 2 – the money lands in another bank, that bank sets aside a reserve, lends on the money; round 3 – the process repeats. Money's operation is effectively multiplied in the economy because banks transmit funds constantly from (passive) savers to (active) borrowers, thus distributing money across those hands. The system works because savers, who are content to leave their funds alone, are unlikely to demand more than the (respective) reserve amounts back from any round. Banks balance their flow of funds over time as borrowers repay their loans.

According to another view, commercial banking activity amounts to "money creation" rather than the pooling and transmission of existing funds. Banks fund the loans they make by issuing deposits (or promises-to-pay in the official unit of account) that are treated by the wider community as money, not only as credit. They have, in effect, immediate purchasing power. The constraint on banks' lending capacity is not the sum of previously accumulated funds, but the banks' ability to clear obligations owed to other banks against obligations demanded from other banks. That activity depends on national payments systems coordinated and stabilized by central banks.

We open this roundtable to proponents of each approach to banking. We invite them to argue their case, to respond to one another, and to elaborate the implications that their view has on matters including the definition of money, the role of private capital accumulation, the relationship of commercial banks to central banks, and the behavior of the money supply.

Contributions

August 3, 2020
Roundtable Wrap-up
Sannoy Das, Harvard Law School

March 12, 2020
The Power of Paradigms in Histories of Economic Development
Christine Desan, Harvard Law School

March 5, 2020
Thinking about whether and why money matters is more important than debates about "views" on banking intermediation
Sir Paul Tucker, Harvard Kennedy School

February 27, 2020
What Do Banks Do?
Stephen A. Marglin, Harvard University

February 19, 2020
Focusing on Risk
Daniel K. Tarullo, Harvard Law School

February 13, 2020
Towards a Mixed View
Howell E. Jackson, Harvard Law School

February 5, 2020
What Do Banks Intermediate?
Robert Hockett, Cornell Law School
Saule Omarova, Cornell Law School

January 29, 2020
Banks Are Not Intermediaries of Loanable Funds
Michael Kumhof, Bank of England
Zoltan Jakab, International Monetary Fund

January 23, 2020
What’s at Stake in Debates over Bank Money Creation Mechanics?
Morgan Ricks, Vanderbilt Law School

January 15, 2020
Are Banks Special? A Fintech Perspective
Charles M. Kahn, University of Illinois

January 08, 2020
Endorsing the Money-creation View
Marc Lavoie, University of Ottawa

Desan, Christine

- Desan, Christine (profiles)
    - Constitutional Law of Money (Harvard Law School – Fall 2020)
    - Legal Architecture of Globalization (Harvard Law School – Spring 2019)
    - Constitutional Law of Money (Harvard Law School – Fall 2017)

The Legal Architecture of Globalization: Money, Debt and Development – Overview

Harvard Law School, Spring 2019
Professor Christine Desan

Course Syllabus [pdf] **|** Course Materials [page]

Course Description: An integrated political economy now covers much of the globe. This course focuses on the monetary structure of that phenomenon as a matter created and contested in law. Trade, extraction, exchange, debt, and economic development – for centuries, all have depended on money as their medium. By examining the changing legal design of money, we will study globalization as a material, ideological, and distributive event of enormous significance.

Early sovereigns prioritized domestic law, both public and private, in developing the rules that provide the basic matrix for exchange. Those rules created the mediums that carry value – including money, credit, and circulating capital. Nation-states today still claim sovereignty over those decisions; they are basic to self-determination and economic development. But the latitude for those decisions had changed. New monetary and financial relations now bind states, individuals, and other entities together and reconfigure the possibilities for their interaction.

We consider the way that political communities assert sovereignty in money and finance, the challenges that occur as different sovereign projects collide, interact, or compete with one another, and the character of the international orders that have resulted, including those of early Europe, the era of the Gold Standard, the Bretton Woods period, and the contemporary system. We will focus, in particular, on the advent and development of finance-based money, a form of liquidity based on sovereign debt and expanded by commercial banks and capital markets. We discuss how that finance-based form defines value, authority, and markets in the modern world, with attention to its influence shaping international law and international financial institutions, its role as the medium for much of modern globalization, and its implications for global and domestic inequality.

Constitutional Law of Money – Materials

Professor Christine Desan (profile)
Harvard Law School – Fall 2017

Course Overview (Description and Syllabus)

I. Governing at the Material Level

Class 1: The Dollar as a Democratic Medium
Readings Notes and Discussion

Class 2: Money: the Basic Design
Readings Notes and Discussion

Class 3: Money: the Modern Design (a very brief introduction)
Readings Notes and Discussion

II. Experiments with Money: Economic Development, Sovereignty, and the Contest over Federalism (1690-1865)

Class 4: Money and Self-Determination – The Colonial Experience

Readings, Notes and Discussion

Class 5: Money and Nation-building – the Revolution and the Constitution
Readings, Notes and Discussion

Class 6: The New Federalist Approach to Money: Public Debt and National Banking
Readings, Notes and Discussion

Class 7: Revising Public Obligation: The Contracts Clause and Article I, Sec. 10
Readings, Notes and Discussion

Class 8: State Development Strategies in an Illiquid World: Banks and Corporations
Readings, Notes and Discussion

Class 9: Federalism Contested: Jackson and the Battle over the Bank(s)
Readings, Notes and Discussion

Class 10: Free Banking: The High Tide of State Power
Readings, Notes and Discussion

III. Configuring Federal Monetary Power (1865-Present)

Class 11: National Banking I: Federal Entry into Retail Banking
Readings, Notes and Discussion

Class 12: National Banking II: Constitutional Claims to Credit Outside the Commercial System
Readings, Notes and Discussion

Class 13: Conceptualizing the Modern Market: Gold, Futures, and Economic Expertise
Readings, Notes and Discussion

Class 14: “Fed-eralizing” the Monetary System
Guest lecturer: Prof. Nadav Orian Peer, Tulane Law School
Readings, Notes and Discussion

Class 15: Liberating the Fed: the Movement towards Discretionary Monetary Policy
Readings, Notes and Discussion

Class 16: Credit Allocation as a Political Project
Readings, Notes and Discussion

Class 17: Market Funding and Financialization
Readings, Notes and Discussion

Class 18: The Financial Crisis
Readings, Notes and Discussion

Class 19: The Constitutional Charge of Administrative Accountability and Independence: The Fed and Monetary Policy
Readings, Notes and Discussion

IV: Money in Constitutional Dimension: Contemporary Issues

Class 20: The Constitutional Right to Credit? Banking and the Unbanked

Class 21: Finance and Inequality

Class 22: Monetary Reform: Proposals to Restructure Money

Class 23: The Debate over Fiscal Policy: From Austerity to Full Employment Proposals

Class 24: Dreams about Money

Constitutional Law of Money – Overview

Professor Christine Desan (profile)
Harvard Law School – Spring 2019

Syllabus | Course Materials (coming soon)

Course Description:
According to one of the framers, the "soul of the Constitution" was the clause allocating authority over money. Over the following centuries, money has remained at the center of debates over governance, including the division between state and federal sovereigns, American approaches to economic development and social welfare, the scope of judicial review, federal preemption, and the allocation of fundamental decisions about material distribution. The authority of the Federal Reserve, for example, apparently includes the ability to make monetary policy decisions that move hundreds of billions of dollars. This 3-credit course picks up an essential line of constitutional debate and determination, including those concerning the national debt, the contracts clause, state police powers, the Legal Tender Cases, the Gold Clause cases, and the role and responsibilities of the Treasury and the Federal Reserve.

The Legal Architecture of Globalization: Money, Debt,

and Development – Materials

Harvard Law School, Spring 2019
Professor Christine Desan

Introduction and Overview

Class 01: Money, Debt, and Development: Challenges and Change in a Globalizing World
Reading, Background and Discussion

I. A Baseline: Money and its Design in the Early Western World

Class 02: Course Overview and Introduction to Money as a Legal Institution
Reading, Background and Discussion

Class 03: Commodity Money and Medieval Constitutionalism (the Law on Money Creation and Debasement)
Reading, Background and Discussion

Class 04: Medieval Money, Development, and the Law on Exchange (Usury and Nominalism)
Reading, Background and Discussion

Class 05: Sovereignty and International Law in an Age of Bullion: the Early Modern Settlement
Reading, Background and Discussion

II. The Early Modern Quartet: Modern Money, Public Debt, Securities Markets, and Commercial Banking in the Era of European Expansion

Class 06: The Invention of Modern (Bank-based) Money
Reading, Background and Discussion

Class 07: The New Public Law of Money: Public Debt and the Ascendance of Creditors' Rights
Reading, Background and Discussion

Class 08: Securities Markets and the Accommodation of International Law: the Rise of Capital Out of the South Sea Debacle
Reading, Background and Discussion

Class 09: The Development of Commercial Banking
Reading, Background and Discussion

Class 10: Time-out — Contemporary Money-Making (a short introduction to the modern Fed, commercial banks, and the way they Interact)
Reading, Background and Discussion

III. The "First Globalization": the International Gold Standard and its Legacies

Class 11: Modern Markets as a Radical Innovation: Power, Problems, and Commentary
Reading, Background and Discussion

Class 12: The Quartet on the Stage of Empire: Finance in the Ottoman World (i.e., imperialism as a monetary matter)
Reading, Background and Discussion

Class 13: The International Gold Standard & the Geography of Development
Reading, Background and Discussion

Class 14: Sovereign Debt Under the Gold Standard: Practice and Law
Reading, Background and Discussion

Class 15: Austerity under Pressure: the Classic Conflict between Discipline and Domestic Need
Reading, Background and Discussion

Class 16: The Bretton Woods Balance
Reading, Background and Discussion

IV. The "Second Globalization": The Promise and Dangers of

Capital

Class 17: Debating Development and the IMF
Reading, Background and Discussion

Class 18: Monetary Adjustment, the IMF, and Austerity Resurgent: The Challenges of Economic Development
Reading, Background and Discussion

Class 19: The Two Faces of Debt: Financialization and Conditionality
Reading, Background and Discussion

Class 20: Capital Rules: Capital Mobility as a Governance Issue
[Guest speaker: Professor Rawi Abdelal, Harvard Business School]
Reading, Background and Discussion

Class 21: Instability at the Core: The Financial Crisis of 2008
Reading, Background and Discussion

Class 22: The "Judicialization" of Sovereign Debt: Bonds, Courts, and Financial Centers as Authors of Law
Reading, Background and Discussion

Class 23: Wealth and Inequality: Debating Distribution in a Financialized World
Reading, Background and Discussion

MDM 2018: Welcoming Remarks

Podcast: Christine Desan opens the first Money as a Democratic Medium conference.

Christine Desan, Harvard Law School
Recognizing money and credit as public projects exposes issues of democratic purpose and possibility. In a novel focus, this conference makes those issues central.

MDM 2018: History and Theory

If money is a complex collective enterprise, protean in design possibilities both in practice and conception, then it has a history of change, carries profound moral significance, and lays a rightful claim to the concern of citizens and political theorists, lawyers and economists alike. How should an approach to money as a public medium re-orient fields that have ignored it? And how might the ideal of democracy matter in revised approaches?
Roundtable
Jeffrey Sklansky – University of Illinois at Chicago
Stefan Eich – Princeton, Society of Fellows
Stephen Marglin – Harvard University
Scott Ferguson – University of South Florida
Christine Desan – Harvard Law School
Moderator: Roy Kreitner, Tel Aviv University School of Law

MDM 2018- Wrapping Up

We conclude with brief comments from participants on a small number of core questions, including (1) what themes emerged most powerfully across the conference sessions, and (2) what steps can we take to ensure that this conversation continues in ways that support future work?
Nadav Orian Peer – Tulane Law School
Patricia McCoy – Boston College Law School

Saule Omarova – Cornell Law School
Iain Frame – Kent Law School
Thank you – Christine Desan