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## The Financialized State

Dick Bryan, David Harvie, Mike Rafferty and Bruno Tinel

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### **Abstract**

In this chapter, we explore states' strategic use of financial ways of thinking in policy formation, resulting in the "financialization" of many aspects of state policy. Specifically, we argue that, following Randy Martin's formulation, a "social logic of the derivative" is being incorporated into the design of state intervention. Paying particular attention to *leverage* and *liquidity* we develop three key propositions, namely, that this derivative logic is changing, and even erasing, earlier distinctions between: (i) the state and financial markets; (ii) those state activities—namely, monetary and fiscal policy—once thought to be formally discrete; and (iii) finance and community or social policy. We illustrate our argument with examples of specific policies and initiatives—such as Quantitative Easing, bank liquidity guarantees, and the social impact bond—drawn primarily from the United States and the United Kingdom.

### **Introduction: Leverage, Liquidity, and Social Derivatives**

The term "financialization" is becoming an increasingly popular concept to describe many recent changes in economic and social organization and processes. But there is no generally accepted definition of the concept, partly because different definitions focus on different developments. For some, financialization is about finance-as-industry growing larger in its share of GDP or profitability. For others, it is about the growing power of finance in corporate decision-making via shareholder value. Financialization is also invoked to explain the growing need not only for households to borrow for everyday living, especially housing, but also for university education and basic consumption. A newer frontier in this research is addressing changes involving those occurring "inside" financial markets and institutions and in the design of financial products (Bryan & Rafferty, 2017).

Less attention has been given to the spread of financial logics into areas beyond those conventionally depicted as "finance," such as the new agendas of risk shifting and risk management of households and associated social policy. This chapter explores the spread of financial logics into the state—such that many aspects of state policy are being "financialized." Currently depicted by reference to over-arching processes of "neo-liberalism," "financialization" can mean many things in relation to the state. These meanings include: fiscal agendas of austerity; the sale of state-owned assets; the imposition of commercial criteria on assets and activities that remain within the state; as well as policies that subsidize and advance the political power of financial institutions.

Such developments are not uniform within or across nation-states; nor is there a telos to the process of state financialization. But within the literature on the state and financialization

there is little attention to states' increasing strategic use of financial ways of thinking in policy formation, especially through concepts such as leverage<sup>1</sup> and liquidity<sup>2</sup> (Bryan & Rafferty, 2014, 2017, 2018; Martin, 2002).

It is not that the concepts of leverage and liquidity are themselves absent in contemporary analysis of states and policy. Indeed, any engagement with debt, for instance, is necessarily about leverage, and any discussion about central banking necessarily invokes issues of liquidity. Our concern is that engagement with leverage and liquidity is too often incidental, and not pursued as a key feature of state financialization. Our proposition, therefore, is that leverage and liquidity form a broader logic identifying how the financial role of states is transforming.

Our objective, however, is not to offer yet another formal restatement of the role of the state, as if states are reducible to delineated roles. It is to identify an emerging range of leveraged state positions to build the proposition that apparently discrete policy changes in the aftermath of the global financial crisis of 2007–2008, often simply depicted by reference to “neo-liberalism,” can be seen to involve the strategic management of leverage and liquidity and embed a logic of financial derivatives. The irony is that state policies designed to combat the crash of derivative markets in 2007 and 2008 are in effect deploying derivative structures and techniques.

Randy Martin (2015) has coined the term “the derivative form” or a “derivative logic” (in parallel with Marx’s value form and logic of capital). Martin uses the heuristic of derivatives to help understand changes in social organization, from cultural processes, to university governance, to military strategy in the “war against terror.” The essence of this analysis is the identification that the derivative involves two things: leverage (purchasing a large risk exposure on a small outlay) and decomposing things we have generally thought of as a whole into a range of attributes. In financial markets, the objective is to break down an equity or a loan or a portfolio into its elemental and different risks, so that each of these risks might be priced and traded discretely. Extended to the social world, there is recognition that this same decomposition of “things” to their constituent risks and managing those risks is a driver of change, even if these risks are not traded in formal markets. Here we are also invoking what Randy Martin (2014: 190) depicted as the “social logic of derivatives”:

Derivatives give form to that contradictory relation between the move to money as such, and the moves deeper into social materiality and interdependence. Unpacking derivatives, not simply as a technical device of finance, but as a key to the social logics and relations that inhere in the current conjuncture of capital, will address three cardinal riddles of finance. First, what does financial dominance mean for an understanding of how capitalism works (or doesn't); second, what historical difference does this prevalence of finance make; and third, how to understand the social and political implications of the preponderance of financial debt?

In this chapter, we explore this derivative logic by developing three key propositions. They all concern the way in which changes in leverage and liquidity are blurring conventional categories. In a nutshell, we argue that the social logic of the derivative, which is permeating the state, is changing and even erasing earlier distinctions between: (i) the state and financial markets; (ii) what were formally thought to be discrete state activities—namely, monetary and fiscal policy; and (iii) community or social policy and finance. To be clear, we do not claim

that this logic has erased these distinctions completely but only that there is a trend in this direction. And, to reiterate, nor do we claim that these trends are the same everywhere or that they are occurring everywhere. We illustrate our argument with examples of policies, especially those prevalent in the United States and, to a lesser extent, the United Kingdom.

### **Financial Derivatives: A Brief Background**

A derivative logic needs a brief explanation, for by now we should understand that they are more than devices of leveraged gambling. A derivative gives exposure to an attribute of market performance (generally via a price change, but it could be in a variety of indices) of an asset without (necessarily) involving ownership of the underlying asset. Derivatives are traded in order to take a range of risk positions (hedge/speculation, long/short) on an unknown future. The leverage comes from the fact that it is far cheaper to purchase a derivative on an asset than to own the asset itself. Hence for an expenditure equal to the price of an asset, it is possible to acquire large multiples of derivative exposure. The wins are many multiples more than for the owner of the underlying asset; but so often too are the losses.<sup>3</sup>

It is further useful to explain the two basic types of derivative instrument that underpin our analysis: *put options* and *call options*. Put options give their holder the right to sell an asset at a certain price at a certain time or over a certain time period. Call options give their holder the right to buy an asset at a certain price or over a certain time period. The put option trades falling prices or values; the call option rising prices or values. Because these contracts are generally settled in cash, not via the transfer of ownership of the underlying asset, there is no need to own the asset against which the options have been purchased.

Normally in explanations of derivatives, the underlying asset is assumed to be a commodity—for example, steel or coffee beans—or a financial asset—for example, a certain quantity of yen or euros, or a “basket” of shares. If the “spot price” of steel or yen rises above the “strike price” of a call option linked to steel or yen, then the holder of this option will exercise it, making a “profit” on the difference between the spot and strike prices *minus* the premium or price they paid for the option. The seller of the call option, who received the premium but who must sell the asset (in this case steel/yen) at a price below that in the spot market, makes an equivalent loss.

But this derivative logic is not restricted to the products traded in standard derivative exchanges. It is present, under another name, in daily life. For example (and one we return to shortly), medical and other forms of insurance take the financial form of call options. The option’s seller is the insurer, its buyer the insured person or household; the “underlying asset” of uncertain future value is the cost of medical treatment arising from some “event” (ill-health). If the insured person remains healthy then the cost of medical treatment, i.e., the value of the underlying asset, is zero: the option, in effect, is not exercised. But in the event that medical treatment is required, then the underlying’s value rises with the cost of this treatment: in other words, the option is exercised. The price of the option is the insurance premium and, as with “textbook” examples (where the underlying is steel or coffee or currency), this price/premium will likely be higher the more likely is the option to be exercised—i.e., the higher the likelihood of medical treatment being required.

With this brief background, we can look at a range of prevalent, post-crisis financial policy positions.

## **Quantitative Easing**

The process of Quantitative Easing (QE) that followed the global financial crisis in many advanced capitalist countries is perhaps the most expensive and expansive post-crisis policy. QE involved states buying assets of unknown and often dubious quality so as to ensure liquidity in financial markets. In the US version of QE, these dubious assets typically related to a housing investment; in the European version, such assets were typically bank loans. The assets were then held on the states' books, and cash was returned to the seller.

The effect was to provide capital markets with put options: the capacity to put risks (and risky assets) back onto the state. In the midst of crisis, the state bought financial assets at full, pre-crisis value, in the knowledge that their market price was likely to fall. By selling these assets to the state, financial institutions didn't have to write down the assets' value; but as the assets were not subsequently sold by the state, their value was never written down: the state's loss on the put options was never recorded (rather they were treated as contingent claims). The "price" paid by the banks for the acquisition of these put options was the guarantee that they would maintain liquidity in financial markets.

QE is not just option-like in its financial structure, but its particular form also had significant but neglected consequences, which are best understood through the lens of options. In the United States, QE targeted debt markets and derivative markets in almost equal measure. The targeting of debt markets via the purchase of Treasury bonds is familiar. But the US Federal Reserve also targeted derivative products; specifically, mortgage-backed securities.

Mortgage-backed securities (MBS) are derivatives because their owner holds exposure to an income stream (a bundle of monthly mortgage repayments) but no ownership of either the mortgages themselves, or the "underlying" properties (houses). It is this derivative nature of MBS that made (and makes) them so vulnerable to crashing. A QE policy involving the large-scale purchase of MBS is no less a leveraged, derivative position held by the Federal Reserve. But QE lasted longer than the purchase of so-called toxic assets: QE rapidly evolved into a more pervasive policy to re-build asset market "confidence" (prices). In the United States, the Federal Reserve's argument for QE was initially about reflatting the mortgage-backed securities market (that part of the asset market most profoundly impacted by defaulting sub-prime loans crashing MBS values). There was also an expected flow through from the MBS market to the housing market to lift house prices and, with house price inflation, reduce the number of households in negative equity (i.e., at risk of default). By QE2, the Fed's argument broadened from housing, morphing into the proposition that the capital-market benefits of QE would spread across all asset classes. The argument here was that as the prices of MBS rise, and so the yield falls, investors will shift to other, more profitable assets, pushing their prices up: a financial version of the rising-tide-lifting-all-boats catchphrase. The effect across capital markets was that the state was now, in effect, selling call options, enabling a protected exposure to the up-side of financial assets. Again, the "price" of these options was that capital markets had to secure liquidity and keep investing.

This derivative logic represents a profound shift in the framing of monetary policy. Liquidity was once provided directly into the debt market by central-bank adjustments in interest rates and/or the quantity of money in circulation. But in the era when liquidity (and crises of

illiquidity) shifts from the banking sector to leveraged derivative markets, so the state's monetary policy has to shift to leveraged derivative interventions.

### **“Too Big to Fail”: State Deposit and Bank Liquidity Guarantees**

During the global financial crisis, and indeed before (prompted by earlier bank liquidity scares), many nation-states made undertakings—sometimes formal, sometimes by precedent—to underwrite the viability of financial institutions. The formal undertakings in many contexts relate to guarantees to citizens regarding the underwriting of certain levels of their bank savings. The informal undertakings, which manifestly arose in 2007 and 2008 in the midst of bank insolvencies, are captured by the popular expression “too big to fail.” They involve the recognition that states cannot let large financial institutions collapse because of the high levels of collateral damage, and the overall loss of market liquidity, that would predictably follow. Federal Reserve chair Ben Bernanke's reputed advocacy of emergency bailouts, in the context of the Friday, September 28, 2008 stock market crash, famously captured the essence of the dilemma: “If we don't do this, we may not have an economy on Monday.”<sup>4</sup>

The underwriting of financial assets, by asset purchase or some other method, has been a prevalent response of many states to the financial crisis. It is already well-recognized that financial institutions secured special treatment because of their pivotal economic position as providers (and deniers) of market liquidity. Beyond this, the interesting dimension of such underwriting is that these various forms of support are rarely formally costed. They are given at no stated charge and with no record on the state's fiscal balance sheet.

Robert Merton, famous for the Black-Scholes-Merton options pricing model, made a back-of-the-envelope calculation that, in 2013, the United States had explicitly and implicitly underwritten the value of financial assets totaling about US\$17 trillion:

U.S. Treasury debt held by the public was \$9 trillion in 2010; that debt is probably closer to \$11 trillion today. [There are further] U.S. government guarantees that are not on the balance sheet. To begin, there is about \$1.9 trillion in guaranteed loan financing. Fannie Mae and Freddie Mac are both in receivership; the guarantees relating to Fannie and Freddie are just over \$5 trillion. Finally, the off-balance-sheet guarantees of the Federal Deposit Insurance Corporation (FDIC), home loan banks, the Fed itself, and many other federal institutions are estimated at about \$10 trillion. In sum, there is about \$17 trillion in U.S. government off-balance-sheet guarantees. Note that the \$17 trillion represents the amounts being guaranteed, not the actual value of the guarantees. The value of these guarantees, however, can be enormous, particularly in times of stress. (Merton et al., 2013: 22–23)

But, Merton noted, the cost of this underwriting has never appeared as a liability on the state's balance sheet, because it has (as yet) involved no “actual” expenditure.

The implicit promise to back the liabilities of banks involves the state in potential future expenditures should a crisis of bank illiquidity arises. Hence, contended Merton, such underwriting should be priced like other contingent claims: in this case, like a call option. The value of the option changes as the probability of its triggering changes. Underwriting has a low price during a boom, where it is unlikely to be called on by banks, but it has an extremely high price in a downturn, where the state's guarantees are increasingly likely to be called on.

In effect, the state is selling, at token price, call options on the provision of liquidity, but is not recording the contingent claims that this derivative position involves.

### **“Safe” Assets**

The standard conception of a “risk-free” financial asset has been a Treasury bond (T-bond). Like the state’s money (fiat currency), T-bonds are guaranteed by the state, and hence (nominally) face no default risk. No doubt there will be, for the foreseeable future, a large demand for Treasury bonds, especially US T-bonds, and many will argue that there is no real, “safe” alternative (He et al., 2016).<sup>5</sup>

But things are changing in the wake of the global financial crisis. Many nation-states pledged their government tax bases to rescue the banking system; many others used aggressive monetary policy easing, especially QE and interest rate cuts, to reflate asset markets and stimulate economic activity. A consequence was near zero and even negative real interest rates, with a recent estimate putting the global stock of negative-yielding bonds at US\$10 trillion (Gutscher, 2019).

Further, yields became not just negative, but also volatile. As a central plank of QE, the US Federal Reserve started to purchase much of the supply of five to ten year T-bonds. Concurrently, long-term uncertainty reduced demand for longer-term (up to 30 year) T-bonds. That left public demand accessing shorter-term T-bonds, where prices are more volatile, and yields are directly influenced by short-term central-bank interest rate policy (Rogoff, 2019). In this context, the aspiration of “safe” assets to anchor an asset portfolio is being re-thought. There is evidence showing renewed focus on a conception not of “risk free” assets (for bonds with negative yield are not “risk free”) but of “safe” assets. Within this policy momentum, there is also an increasing focus on privately issued “quasi-safe assets.” As we have argued elsewhere, with not enough “born safe” assets in supply, central banks and financial markets have been attempting to find ways to “make” some assets safe (Bryan et al., 2016). Caballero et al. (2017) depict the safe assets “conundrum”:

In the short- and medium-term, the quantity of safe assets may increase via stronger exchange rates in the safe asset issuers, and via public debt issuance in those countries.

Over time, a lasting solution to the shortage of safe assets will require a combination of finding alternative sources of safe asset supply and a reduction in demand.

The depiction of T-bonds as inherently and uniquely “safe” now comes with caveats (Golec & Perotti, 2017; Gorton, 2016). T-bonds may be safe from formal default, but they are not always safe in terms of yield, or the option to re-negotiate. This can be seen in the spread in yields between Eurobonds issued by Eurozone countries. Indeed, with QE, T-bonds and their quantities, prices, and yields have been used as key tools of government policy. Over the past decade, in some leading industrial economies—Germany and Japan, for instance—government debt has been generating negative yields. When there is a widespread fear of market downturn, traders bid up the prices of these safe assets, turning their yields negative, just as some states were issuing bonds at negative real interest rates.

But in the United States, there is a further and countering agenda. As part of its QE policy, the US Federal Reserve repeatedly stated a longer-term commitment to reduce the holdings of Treasury bonds and mortgage-backed securities after markets stabilized: a process it describes as “normalizing” its balance sheet. This process of “normalization” was initiated in October

2017. The Fed allowed US\$30 billion in Treasury proceeds and \$20 billion from mortgage-backed securities to roll off its books each month. All other expiring assets would be rolled over (reinvested). Via these monthly releases, there was to be a long, steady winding-back of the Federal Reserve's balance sheet. But the process was paused, i.e., effectively terminated, in May 2019, amidst fears for the stability of the bond market. The effect is that the price of, and hence yield on, Treasury bonds has become volatile, especially since they are seen to have become a permanent tool of discretionary, short-term central-bank policy (e.g., Rocco & Henderson, 2019).

There is a critical sense in which T-bonds, once themselves the safe asset, are becoming a derivative position—in the sense that they are the liquid hedge on the portfolio, not simply its stable part. This is because there is now a range of assets in which there are calculable probabilities of safety (indeed variable forms of state backing), which can sit alongside Treasury bonds in asset portfolios. In this scenario, it is worth considering what might fill the “safe” end of a pension or sovereign wealth fund portfolio if government debt is evolving to the derivative position.

Safe assets are most likely to attach in some way to the nation-state—for states can guarantee against default risk in a way no private organization can—but the form of that state guarantee can change. The critical issue is that safety is not innate to an asset: the conditions (and degrees) of safety can be created (or withdrawn) by nation-state policy. States don't need necessarily to be the direct suppliers of safe assets; they simply need to be the guarantors of safety (the state's leveraged position).

One area of growing interest in this context is infrastructure bonds: bonds issued to fund the construction or operation of roads, railways and tunnels, power stations and power services, telecommunications, hospitals, and so on. Critical to this development has been the process of privatization of once-state-owned assets and the state's role as underwriter in public-private partnerships. The contractual terms are instructive for here we discover the ways in which states may provide forms of safety. States may underwrite revenue streams by guaranteeing patronage, embedding market rates of return into regulated pricing structures, and so on. Here arises the allure of both safety and yield.

The connection to potential financial volatility that comes with this development is made clear in a 2014 OECD report on investment in infrastructure:

The massive liquidity injections that Central Banks have carried out between 2009 and 2012 in response to the Lehman Brothers and European sovereign debt crises have led to a compression of the yields of debt capital market instruments. The search for yields by institutional investors has found a possible solution in the investment in alternative asset classes like infrastructure [...]

In this sense, the report outlines the typical characteristics of infrastructure as an alternative asset class for private investors and focuses on the riskiness of infrastructure projects from a financial investor's standpoint. When an acceptable risk/return profile cannot be reached, some form of public intervention is needed to leverage private capital intervention. This public intervention refers obviously, but is not limited to, provision of financial back up and support that can take many alternative forms. (OECD, 2014: 6–7)



Currently infrastructure bonds are issued in Anglo countries and some emerging markets,<sup>6</sup> so the innovation here should not be depicted as yet widespread. But significant here is that the state's underwriting of revenue streams on privatized assets creates possibilities for (close to) AAA-rated securitization, generating "safe" bond-like assets with many of the financial attributes of Treasury bonds. With guarantees of inflation-linked revenue, for example, they may even have more stable prices and positive yields than T-bonds, especially if their financial structures are not, in turn, leveraged. Demand has grown accordingly from both pension funds and sovereign wealth funds (Alonso et al., 2015; Arezki et al., 2016).<sup>7</sup> Financially, therefore, the state can be seen as meeting market demand for safe assets without having to produce the safe assets itself: it is leveraging its balance sheet not by issuing public debt per se, but by selling a put option to private developers, with a strike price determined by the conditions of profitability of the infrastructure developer.

### **Fiscal Contraction and Community Development**

The debates about the merits of QE, and the general bailout strategies by central banks in the wake of the financial crisis, are extensive: they are not for review in this context (on central-bank responses to the crisis, see instead Fontan & Larue's chapter in this *Handbook*). But it does bear noting, because this has not been subject to nearly the same scrutiny, that the objective and logic of QE has been the security of financial market liquidity; not the well-being of households per se.

While, in the aftermath of the global financial crisis, financial institutions were "bailed out" and underwritten in return for sustaining market liquidity, households received no such support. Instead, they have faced policy positions described as "austerity." While banks are constitutionally incapable of securing their own liquidity (they cannot, e.g., trade while insolvent), households are different, for they will tend to pursue subsistence by any means in most circumstances. Not only will they choose to trade while insolvent, but social policy also generally expects them to do so: a process of "responsibilization" of householders to ensure they comply with their debt commitments (Beggs et al., 2014). The effect is that households could face state policies to create intentional household illiquidity, and nonetheless stay viable, or at least on payment.

While corporations pursue profitability, in recent decades households have faced policy agendas designed to force them to run to principles of "responsibility" and "rationality." The application of behavioral economics (the "nudge" agenda that links psychological postulates to financial incentives and compulsion) sees welfare policies themselves used as a form of state leverage to prompt people to act "rationally." Central has been the withdrawal of many forms of state provisioning, requiring households to manage their own risks by trading in call options (insurance) to replace many services formerly part of social policy. Health insurance is a clear illustration, but so too is the escalation of education fees, as students are encouraged to buy put options on their income-earning futures. In effect, the state has been requiring that households leverage themselves so as to manage their austerity-driven illiquidity.

The history of the England and Wales's fees-and-debt regime of university finance is politically interesting here.<sup>8</sup> Student loans can be considered a put option because if the value of the underlying asset—the graduate's future earnings—falls, then annual debt repayments also fall; and because, in the British system, any outstanding debt is canceled 30 years after

graduation, a large proportion of student debt will never be repaid. This feature of the model has been emphasized by its defenders, who insist (with some justification) that it shares many characteristics with a graduate tax—a means of funding higher education that commands far higher public backing. By contrast, the present regime is widely reviled. Its introduction in 2010, when parliament voted to triple student fees, sparked a mass student movement, involving demonstrations and the occupations of the ruling Conservative Party’s headquarters, and of dozens of university campuses. Indeed, these student activists have been credited by some as forming the basis of the movement that elected the socialist Jeremy Corbyn as leader of the Labour Party in 2015 (Chessum, 2015; Myers, 2017). The government opted for the fees-and-debt scheme—rather than the less contentious graduate tax—for a competing reason of political expediency and, in fact, a derivative-like, off-balance-sheet reason: controlling the headline public debt. In an era in which the Conservative-Liberal-Democrat coalition government had pledged to “fix the deficit” (and was blaming the previous Labour administration for its fiscal “profligacy”), a politically attractive feature of the model was that loans granted to students for tuition and maintenance, although backed by the state, would not be included in the current accounts and therefore would not make up part of the Treasury’s public-sector net borrowing. In 2018, however, the Office for Budget Responsibility suggested that this method of accounting for student debt creates a “fiscal illusion”; and the Office for National Statistics has decided instead to treat student loans issued by the state as a mixture of financial transaction (the portion of the loan that is expected to be repaid) and government expenditure (that portion that will likely not be paid) (ONS, 2018; see also Adams, 2018).

The sorts of changes mentioned above have had a significant impact, especially on lower- and middle-income and young households. But the further effect of derivative austerity was that the once-standard Keynesian countercyclical fiscal measures (essentially greater state welfare expenditure triggered by an economic downturn) were not enacted, or at least not to the extent that happened in the twentieth century.

It is, therefore, an interesting twist to see in the United States that the Federal Reserve, in addition to QE which Kenneth Rogoff (2019) called a “trespass into fiscal policy” is also now pursuing a range of agendas of employment creation and urban renewal. These agendas are being advanced not primarily in the name of redressing growing social and economic inequality, but rather in the name of social order and financial stability—“community development.” In the process, what is framed as “excessive” expenditure from a social distribution (fiscal) agenda is re-appearing as a foundational requirement of future financial (and monetary) stability. In effect, in the hands of the Federal Reserve, “community development” becomes a path to financial liquidity, and the strategy is to leverage that “development” activity on the smallest possible amount of state expenditure.

For instance, the Federal Reserve’s Boston division has developed a Working Cities Challenge (WCC), an outcome of research into 25 cities that had experienced forms of de-industrialization and financial stress. This research found that common to those cities that had been able to stabilize or turn around their fortunes was the development of forms of trusteeship: “the ability of leaders in those cities to collaborate across sectors” (n.d.). As the WCC noted, this led to the question, “is there something the Boson Fed can do to help cities strengthen it in a way that extends growth to residents struggling most?”<sup>9</sup> In a rural context,

the Federal Reserve Bank of Richmond has a community development section which has as a goal of understanding and developing:

economic issues and community development tools to strengthen low- and moderate-income communities across the Fifth District through sharing data-supported community investment strategies that promote economic mobility, improve access to credit and information, and support innovations that lead to economic growth. (n.d.)

The interventions funded and developed by WCC/community development-like projects include labor market initiatives, education and training, and infrastructure projects—all initiatives that have clear fiscal policy-like attributes.

The derivative-like position here is as follows. The agenda of central banking in community stability and development is not directly targeting national aggregates (broad national monetary stability, or even GDP growth). Rather, it is those communities that are most financially risky: the communities in the lower tranches of financial stability; the “at risk.” This is a pre-emptive intervention designed to prevent the conditions that might generate further financial (and social) instability (contagion). Second, the approach targets the small outliers, and is supplemented with policy instruments that are said to “leverage small investments,” by combining them with charitable and foundation funds, and using local leadership to act as trustees for community development projects.<sup>10</sup> Finally, the effects of these derivative-like interventions are carefully monitored, measured, and compared in a process of innovation, experimentation, and commensuration.

### **Social Impact Bonds**

At the same time as certain forms of assets (especially infrastructure) are being re-invented or re-engineered as quasi-safe assets, states have been inventing new, riskier assets in policy domains where bond finance once was absent. The new assets are known as social impact bonds (SIB) (in Australia, they are called Social Benefit Bonds). The SIB is one of a raft of “innovative” new financial instruments, part of an even broader field of “social finance,” designed to bring the supposed benefits of financial markets and financial logic to help solve some of society's “most intractable problems” (Social Finance, 2009: 4). Besides the SIB, other examples of the same stable include development impact bonds, climate bonds, and conservation bonds. As with “community development,” discussed above, the social impact bond blurs the boundaries between the state, civil society, and (financial) markets.

The social-investment model involves the state commissioning non-state organizations (whether for-profit or not-for-profit) to intervene in areas that were once, at least in the post-war welfare-state era, seen primarily as the responsibility of the state. Examples include probation services, interventions targeting homelessness, foster care, school truancy, and “employability.” While the state defines desirable outcomes, service-providers are supposedly free to design innovative interventions. Funding for the intervention comes from financial investors. The SIB is designed to align the interests of these three actors—commissioner, service-provider, and financial investor. If the intervention is successful, to the extent that the social outcomes meet or exceed a pre-specified target, then investors receive a financial return; if targets are not met then investors receive no return and may lose the value of their initial investment. In this way, the state only funds successful interventions and, thus, (nominally) shifts risk onto private investors.

There is now a growing critical literature on SIBs (see, e.g., Harvie, 2019; Harvie & Ogman, 2019). Rather than attempting to summarize that literature we draw out the extent to which SIBs can be situated in a world dominated by a social derivative logic (Harvie et al., 2019). First, despite its name, the SIB is not in fact a bond, at least not in the conventional sense. Rather it is much more accurately described as a social derivative—an option on the performance of some social intervention. Although the actual intervention or service might be funded by the financial investor’s capital (as with a conventional bond), the value of the SIB in fact derives from the performance of an “underlying” variable or asset, namely, the performance of the service-provider against a set of metrics that measure the success of the intervention. Moreover, in the event of an unsuccessful intervention, the SIB’s holder has no claim on the assets of the failing/failed service-provider (as would be the case with equity or a conventional bond). The critical issue is that the owner of a SIB has a stake only in the performance of the service-providing organization, not in the organization itself. Of course, the state—the commissioner of the intervention—is also a “stakeholder”; it too desires the social outcomes it has specified to be achieved. But instead of investing all of the funds for an outcome, it has issued a contingent claim to the SIB investor. To the extent that targets are met or exceeded, the value of the SIB will change, and the “debt” to the SIB investor will rise or fall. Moreover, the bond is structured as a contingent claim: the state only pays a “dividend” to investors if these targets are achieved. Thus, we can understand the SIB as a call option held by the state, where the underlying “asset” is (the value of) the desirable social outcome, where the strike “price” is actually not a monetary price, but an intervention performance metric. We might also understand the relationship between state and financial investors as akin to a swap (a rolling series of options). In the world of the welfare state, the state was liable for fixed financial payments necessary to maintain a social service, but in the neoliberal world of the social-investment state, it has exchanged—or swapped—these fixed liabilities with financial investors, to whom it pays a floating (or variable) stream of dividends, depending on performance against a metric. Finally, and more generally, we can understand social impact bonds as facilitating a making-commensurable of heterogeneous activities in the “social sphere.” By means of SIBs traded in the social-investment market, the productive performance, the labor, of a probation officer, say, might be measured against that of a youth worker—or indeed against that of their “clients.” And since there is no firewall between “social” investments and other financial markets, then the labor, both waged and voluntary, of such “social” workers can be integrated into the world of “capitalism with derivatives” (Bryan & Rafferty, 2006; Harvie, 2019).

## **Conclusion**

The growing incorporation of a financial derivative logic into state policy since the global financial crisis is changing the way many state activities are conceived, financially structured, and organized. The chapter developed this proposition through five broad examples or cases: the policy of Quantitative Easing; bank underwriting and “too-big-to-fail”; the problem of “safe assets”; central-bank incorporation of social policy into financial stability; and “social investment” bonds designed to turn welfare provision into a financial asset.

This sample of policy change does not sum to a totalized claim that the state is to be depicted somehow as different from what it was before. It is the claim simply that we can see evidence that the techniques of finance—the social logic of the derivative—are being increasingly incorporated into the design of state intervention. It is not, in any verifiable way, a strategic plan to do so: it is simply the playing out of a financial logic that keeps being “revealed” in policy innovation.

The policy expression of this logic is that, because the state seeks to secure as much impact as it can out of its expenditures and interventions, it will utilize the techniques of leverage to give access to that impact. But leverage always leads to a vulnerability: it can accentuate not only benefits, but also costs. In particular, it requires a liquid market for the financial products it creates.

So the state must build liquidity guarantees into its strategy. In some contexts, these liquidity guarantees are virtually gifts, because the state has lost direct control over liquidity. QE and the underwriting of financial institutions are stark cases, because of the capacity of banks to withhold liquidity and thereby threaten the viability of capitalist financial markets. In other contexts, the state must build alternative platforms of liquidity, such as the conditions for quasi-safe assets and community development programs designed by central banks.

But the creation of liquidity in social-investment bonds—the opening up of a secondary market where these bonds can be traded as financial assets, giving them a current market value—is perhaps the most telling of all. This secondary market is not only generating real-time pricing on provider performance in what is traditionally called the “social safety net” of “the welfare state,” but it also opens the potential for derivative positions on SIBs. Perhaps we are looking to a future where taking short positions on the welfare state (betting on the failure of SIBs) becomes a high-yielding financial asset or investment strategy.<sup>11</sup>

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<sup>1</sup> Most definitions of leverage focus on the increasing levels of debt, including state debt, as a means amplify the profit (or loss) on a financial position.

<sup>2</sup> Liquidity here refers to the ease with which one can trade into, or out of, an asset, usually by reference to the transaction cost, or spread between the buy and sell price (see also Ortiz’s chapter in this *Handbook*).

<sup>3</sup> Imagine a racehorse worth \$2 million. You will stand to win far more from the horse winning a race if you bet \$2 million on a race than if you own the horse and collect the prize money. But if the horse loses, the gambler has lost the \$2 million wager; the owner still has a \$2 million horse.

<sup>4</sup> The statement was said to have been made in the office of the then House Speaker Nancy Pelosi. See, for example, Ross Sorkin et al. (2008).

<sup>5</sup> Helleiner (2014: 241) cites a Chinese official in 2009 making essentially the same point in explaining why China kept buying US Treasury bonds during the crisis: “Except for US Treasuries, what can you hold? [...] US Treasuries are the safe haven.”

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<sup>6</sup> See Firzli (2016) for a brief review. To date, the main sites of state-backed infrastructure bonds are municipalities in the United States, the World Bank in Brazil, and the national governments of Britain, Canada, and Australia. For example, the British state has been toying with the possibility of issuing “infrastructure bonds” rather than T-bonds, essentially because the former are seen to be backed by “real” assets; the latter just by state reputation. See, for example, Thorpe (2016) and Pickard et al. (2016).

<sup>7</sup> OECD (2018) confirms the concentration of these investments in Anglo countries.

<sup>8</sup> The funding models are different in Scotland and Northern Ireland.

<sup>9</sup> This led the Boston Fed to a collaboration with Living Cities, a foundation that says it is “an innovative philanthropic collaborative of the world’s largest foundations and financial institutions working together to dramatically improve the economic well-being of low-income people in cities.” Notable for the propositions we are making about state and markets and leverage, Living Cities operates a Catalyst Fund which, “by providing loans that are combined with loans from other Living Cities members to enable the *creative use of debt to further program activities and leverage grant and private sector loan funds.*” The WCC is an adaptation of the Integration Initiative for the context of smaller cities; it was designed in partnership with the Boston Fed’s own network of cross-sector collaborators, which takes the form of a Steering Committee comprised of leaders from the public, private, and philanthropic sectors who continually inform the WCCs approach with their knowledge of these cities and the field.

<sup>10</sup> These interventions also blur the boundaries between the state, civil society, and markets.

<sup>11</sup> We acknowledge Bob Meister who first posed to us this dark potential.