

Introduction: 'Finance/security'

In an agenda-setting piece for the new security studies, Marieke de Goede (2010) identifies three 'avenues' through which the relations between finance and security might be analysed. The traditional remit of International Relations (IR) is said to extend to 'security and finance', and 'the instrumental deployment of financial instruments in the service of national security and foreign policy' (p. 101). It is questions of 'finance and security', meanwhile, which are held to largely preoccupy scholars of International Political Economy (IPE), Human Geography and Sociology. For those pursuing this second analytical track, what matters are the ways in which 'financial technologies and profit ... premised on the provision of security' actually prove to be 'causal' forces producing 'spectacular *insecurity* in economic life' (pp. 103-4, *original emphasis*). Such concerns have, of course, become particularly pertinent amidst the violent insecurities wrought by the post-2007 global financial crisis (Marrazi, 2010). De Goede's preferred avenue is 'finance/security', however, a third route which explicitly explores how the logics, calculations and techniques of finance relate to processes of securitisation, that is, to the rendering and governing of social phenomena as security problems. What the demarcation of finance/security thus amounts to is a call for research, and for the making of further analytical inroads into the thoroughly modern and yet contemporaneous coming together of finance and security as philosophies and techniques for 'dealing with the uncertain future' (de Goede 2010: 106).

When introducing a recent special issue of this journal, Boy, Burgess and Leander (2011) similarly draw attention to the interstices of finance/security in the rationalities, practices and orderings of contemporary global governance. As they have it, 'finance and security share a claim to universal applicability' in liberal governance, a claim based largely upon 'a common

vocabulary and epistemology of risk (management)’ (p. 115; cf. Aradau, Lobo-Guerrero, van Munster, 2008). As Boy, Burgess and Leander also note, moreover, the risk management vocabularies and epistemologies of finance/security are dynamic and undergoing a significant change at present. Such dynamism is rooted in the creativity, experimentation and remarkable fungibility of risk practices that, contrary to Beck’s (1992) insurability thesis, was stressed over two decades ago by François Ewald (1991). But contemporary change is also propelled by a step-wise intensification of uncertainty, as an increasingly interconnected, volatile and eventful world exposes the limit points of the probabilistic calculation and management of the future in the present (Amoore, forthcoming). The intersections of finance/security are presently witnessing, then, a proliferation of imaginative and anticipatory techniques that figure security problems in air travel, terrorism, epidemics and migration, for example (Adey, 2009; Amoore and de Goede, 2008; Cooper, 2007; Walters, 2006).

Taking the avenue of finance/security, this article makes a three-fold contribution to the research which it demands. The first contribution arises from the focus of the article upon the United States (US) Treasury’s Troubled Assets Relief Programme (TARP) of October 2008. The TARP was the most high-profile governmental intervention in the global financial crisis that broke in August 2007. As the crisis reached its peak in Autumn 2008, it was the difficult passage of the US\$700 billion TARP through Congress which, more than any other individual intervention, appeared to be crucial. Without the TARP’s proposed temporary purchase of what were known in popular parlance as ‘toxic assets’ - assets related to and derived from repayments on sub-prime mortgages, namely mortgage-backed securities (MBS) and collateralised debt obligations (CDOs) - the complete collapse of global financial markets seemed imminent. What is of interest to the analysis of finance/security, however, is how this seemingly vital intervention in the crisis forged the problem upon which it sought to

act. As will be shown here, the TARP attempted to govern the turbulence not simply as a crisis of the financial markets, the banks and of Wall Street, but as one of security. Existing forays along the avenue of finance/security typically explore different instances of either the financialization of security (e.g. Aitken, 2011; Lobo-Guerrero, 2011; Martin, 2007), or the securitization of finance (e.g. de Goede, 2012; Langley, 2008; Martin, 2002). What this article will explore is the play of the latter set of processes, as they were manifest in the assembly of the TARP and at a moment in which the very insecurities produced by finance were stark and evident.

The second contribution made by this article to the analysis of finance/security arises from how the TARP will be theorized, in the terms of Michel Foucault (1980; 2007), as a '*dispositif*' and 'apparatus of security'. What will be demonstrated is how the concept of security apparatus can hold together analytical concerns with the biopolitical rationality of finance/security, on the one hand, and specific and discrete practices of finance/security, on the other. Analyses of the interstices of finance/security typically take inspiration from Foucault's (2007, 2008) later work on the biopolitical mode of power. De Goede (2010) quotes from Foucault (2007), for instance, to draw out the common rationale of finance and security to embrace the opportunities that the uncertain future may afford, at the same time as mitigating against the dangers which it may hold. What Boy, Burgess and Leander (2011) take from Foucault (2007) and Foucauldian-inspired writings (Dillon, 2007; Dillon and Lobo-Guerrero, 2008), meanwhile, is that the uncertainties which the biopolitical rationality of finance/security explicitly targets are the contingencies of circulation. When elaborating upon the contemporary securitization of finance in the first section below, then, I concur that the governance of the financial crisis has been marked by a rationality of biopolitical security, one that seeks to restore and keep open uncertain financial circulations in the name of wealth

and well-being in liberal life. But, when proposing to theorize particular crisis governance interventions as discrete apparatuses of security, the first section also holds that this biopolitical rationality emerges contingently and in processual and lively forms as specific orderings are enacted. The second section goes on to illustrate this claim through a detailed analysis of the discursive, material and institutional elements that came together, in relation, to make the TARP apparatus possible.

Less than two weeks after it was finally approved by Congress, the first tranche of TARP monies were spent not on the temporary purchase of toxic assets as originally proposed, but to address the problem of bank solvency and capitalisation. The final section below suggests that these developments further underline the contingency of biopolitical security and the governmental orderings of security apparatuses. But, I also focus on this change in the workings of the TARP in order to develop the article's third contribution to the analysis of finance/security. Amidst the tumult of October 2008, the reorientation of the TARP towards the problem of bank recapitalisation will be shown to have been a key moment that heralded change in the techniques deployed to mitigate the dangers of uncertain global financial circulation. During recent decades and prior to the post-2007 crisis, as anticipatory techniques came to the fore in the securitisation of liberal life across a number of other domains, the hold of probabilistic risk management in the financial domain actually deepened (Partnoy, 2004; Millo and MacKenzie, 2009). The turn away from purchasing toxic assets in favour of bank recapitalisation by the TARP apparatus will be understood here as, in effect, a moment when the limits of probabilistic risk came to the surface and a move towards techniques of preparedness and resilience in banking began to take hold.

Crisis management and the securitization of finance

There is broad agreement between economists and political economists over how financial crisis management is enacted, and about the purpose of crisis management. Crisis management is typically understood to entail the actions of the sovereign state, as the so-called lender of last resort (LOLR), coming to the rescue of the banks, the markets or finance capital. In Walter Bagehot's (1999) much celebrated definition, put forward in his book *Lombard Street* of 1873, the LOLR makes loans available at a penalty rate to essentially solvent but illiquid banks in order to prevent them from undermining the market as a whole. Similarly, as Charles P. Kindleberger (1996: 146) has it in his classic account of financial crises, the LOLR 'stands ready to halt a run out of real and illiquid financial assets into money by making more money available'. Although Kindleberger acknowledges the considerable variety in specific last resort lending arrangements in different crises, each instance appears in somewhat functional terms as yet another occasion when state institutions creatively but reticently respond to a given set of material crisis circumstances in banking and/or the markets. Crucial in this respect is the sovereignty of the state as a monetary, financial and regulatory agent, and especially the monopoly authorities granted to central banks and treasuries in the relational development of nation-states, national currencies and fiscal machineries (Gilbert and Helleiner, 1999).

Grounded in wider and long-standing controversies about the proper place of the sovereign state in the production and reproduction of monetary relations, much of the debate over financial crisis management in liberal economics concentrates on whether the LOLR function is indeed necessary and, if it is, whether it serves to distort the operation of market discipline by creating so-called 'moral hazard'. These debates have, for example, led to the questioning

of the interventions of the Federal Reserve and US Treasury in the recent crisis (e.g. Taylor, 2009). For Marxist political economists, meanwhile, debates about ‘moral hazard’ miss the point, as the LOLR function of the central bank is held to be a fundamental requirement of the reproduction of inherently unstable competitive capitalist banking (Harvey, 1982, 2010). Kindleberger’s work is, moreover, broadly representative of a post-Keynesian political economy perspective which has proved influential in critical explanations of the present crisis (e.g. Nesvetailova, 2010). Here the inherent crisis tendencies of financial markets, rooted in what Hyman Minsky (1986) calls the ‘progressive illiquidity’ of ultimately unrealizable ownership claims on the future, periodically require the LOLR to restore the ‘public good’ of smoothly operating financial markets which serve the ‘real economy’ of production (Kindleberger, 1996). In sum, Marxist and post-Keynesian political economy redirect analytical attention away from liberal economic debates over ‘moral hazard’, and stress the structural significance of last resort lending in mopping-up of the excesses of financial competition and circulation. Emphasis nonetheless remains on the somewhat unchanging and functional role of the sovereign state as the LOLR to the banks, the markets and finance capital.

The assumptions made by economists and political economists about the sovereign state as a centralised and instrumental agent of last resort lending sit uncomfortably, however, with an increasingly influential body of literature in IR, Political Geography and beyond. Inspired primarily by the writings of Michel Foucault and gaining fresh impetus from the recent English translation of the lectures he delivered at the *Collège de France* during the late 1970s (Foucault, 2007, 2008), one of the principal motivations of this literature is to explore the contemporary rearticulation of the purpose and operation of political sovereignty as a mode of power in liberal societies (e.g. Edkins, Pin-Fat and Shapiro, 2004; Elden, 2009; Neal,

2004). In Foucault's (2007) lectures, the period in which sovereign power was the dominant modality, a form of territorial, centralised and juridical power relations which 'consists in laying down a law and fixing a punishment for the person who breaks it' (p. 5), is now past. This is not to say that sovereign power has evaporated, far from it. But, sovereignty, for Foucault, has become co-present with, and rearticulated by, two further 'complex edifices' of decentralised power that he identifies (p. 8). Mechanisms of discipline and surveillance, as the dominant modality of power from the eighteenth century to the early-to-mid-twentieth century, that synchronise and standardise individual bodies through rule-bound enclosures (factories, schools, hospitals, prisons, and so forth). And, the 'contemporary system' (p. 6), developing from the mid-eighteenth century and coming to the fore as disciplinary societies have waned, that is characterised by the government of the population at a distance and the biopolitical problems of health, wealth and wellbeing (p. 105). Thus, for Foucault (2007; 2008), the contemporary liberal governmental rationalities of power which address these problems are forged through economics as a regime of truth, operate through the technologies of circulation, calculation and the entrepreneurialism of 'free' individuals, and feature contingent apparatus (*dispositif*) of security that seek to assure the life of the population.

Foucault's later work clearly did not anticipate the significance that money and finance have come to hold for the contemporary governing of liberal life. Yet, as a provocation to think anew about the power relations that make the interventions of contemporary financial crisis management possible, this work has great prescience and provides insights which are broadly three-fold. First, financial crises are now not addressed as strictly financial or indeed banking or market problems by the sovereign state, but tend to emerge as problems of 'security' in liberal government. These are not questions of geopolitical security, but are primarily a matter of biopolitical security and of how to 'make life live'. Put baldly, while the

biopolitical rationality has been shown to rework sovereign techniques as it produces a financialization of security (e.g. Aitken 2011; Lobo-Guerrero 2011; Martin 2007), monetary, fiscal and regulatory sovereignty may well also be remobilized in the securitization of finance.

The tendency for financial crises to be biopolitically managed is most pronounced in the USA and United Kingdom (UK), where the government of the population has increasingly operated through the truths, technologies, circulations and calculations of the financial markets in recent decades (Langley, 2008). Transformations in everyday saving and borrowing practices in support of individualized welfare – most notably, the rise of stock market investment to displace deposit accounts and collective insurance schemes, and the ways in which high and unprecedented levels of outstanding mortgage and consumer credit become ubiquitous – have been forged through the overlapping and intersecting of previously disconnected retail and wholesale financial market networks. Financial dislocations are thus more than ever not only wholesale market problems, but problems in the liberal life of the population which are especially acute in Anglo-America.

Second, thinking anew in Foucauldian terms, about the biopolitical rationality which is present in the crisis governance of contemporary securitized finance, also has methodological implications (Collier, 2008; 2009). While it is the case that ‘there is no biopolitics which is not simultaneously also a security apparatus’ (Dillon and Lobo-Guerrero, 2008: 266), careful attention should nonetheless be paid to how that rationality emerges contingently and in processual and lively forms as specific orderings are enacted as *dispositif*. According to Rabinow and Rose (2003: xv-xvi), Foucault first used the concept of *dispositif* to refer ‘in its ordinary French usage’ to ‘tools and devices’, thereafter developing it ‘to mean a device

orientated to produce something – a machinic contraption whose purpose in this case is control and management of certain characteristics of a population’. It is when making this latter move, then, that Foucault (1980; 2007; cf. Agamben 2009) departs from a Deleuzian (Deleuze 2006) reading of *dispositif* as a concept which refers, more broadly, to emergent assemblages of action or *agencements*. As Rabinow and Rose (2003: *xvi*) have it, *dispositif* for Foucault are ‘strategic assemblages ... initially formed as responses to crises, problems, or perceived challenges’. Such contraptions bring together, in Foucault’s (1980: 194) own terms:

a resolutely heterogeneous grouping composing discourses, institutions, architectural arrangements, policy decisions, laws, administrative measures, scientific statements, philosophic, moral and philanthropic propositions; in sum, the said and the not-said, these are the elements of the apparatus. The apparatus itself is the system of relations that can be established between these elements.

The concepts of *dispositif* and apparatuses of security are, for us, precisely about carefully exploring how heterogeneous elements become bound together, in relation, in the strategic enactment of distinct biopolitical crisis management interventions. Featuring the relations of discursive, institutional and material elements (Aradau, 2010: 493), these interventions each attempt to render and govern quite specific problems in the name of financial security, including, for example, those of illiquid money markets, mortgage market foreclosures, toxic sub-prime assets, excessive risk-taking, the solvency and capitalization of banks and sovereign debt (Langley, forthcoming 2014).

The third main insight that Foucault’s later work holds for understandings of financial crisis governance relates, moreover, to the common biopolitical rationality that emerges from discrete and various apparatuses of security. While strategically rendering and governing

crises as a set of particular and technical problems, what marks security *dispositif* is their shared orientation to what Melinda Cooper (2010) calls the ‘turbulence’ of uncertain global circulations. For Foucault (2007), while the spatial logics of sovereign and disciplinary modes of power operate in terms of state territoriality and the enclosure of docile bodies respectively, apparatus of security operate through ‘ensuring circulations: the circulation of people, merchandise, and air, etcetera’ (p. 30). That apparatuses of financial crisis management should seek in their different ways to get credit money moving again is clearly no surprise. However, consider how the post-war planners responded to the Wall Street Crash and the Great Depression of the 1930s: the Bretton Woods system of fixed-exchange rates and programmes of capital controls and banking regulation largely enclosed financial circulations within the national economy, and placed them in the service of production and macroeconomic planning (Best, 2005; Helleiner, 1994). Contemporary crisis management interventions, in contrast, have actually done relatively little to curtail global financial circulations, either by juridical or regulatory means.

That said, the biopolitical rationality that comes into view across the apparatuses of contemporary crisis governance has also been characterized by change in the mechanisms and techniques through which the destructive consequences of uncertain global finance circulations are addressed. In Foucault’s (2007: 20) terms, an apparatus ‘works on the future’ such that ‘the management’ of ‘open series’ which ‘can only be controlled by an estimate of probabilities’ is ‘pretty much the essential characteristic of the mechanism of security’. It was indeed the case that the hold of probabilistic risk management actually deepened in the financial domain prior to the post-2007 crisis, as it appeared that the uncertainties of this or that asset could be valued, managed, priced and traded accordingly as risks (Partnoy, 2004; Millo and MacKenzie, 2009). Although probabilistic risk management has certainly not been

jettisoned amidst the struggle to govern the crisis, apparatuses have nonetheless consistently confronted the limit points of probabilistic risk and, in doing so, have brought to the fore previously nascent anticipatory and imaginative techniques in the securitization of finance (Langley, forthcoming 2013).

The TARP apparatus

From its outset in August 2007, and for at least twelve months or so thereafter, the dominant diagnosis of the recent turbulence in global financial circulations was that this was a 'liquidity crisis'. Such a rendering was common to the media, practitioner and policy explanations which sought to begin to make sense of the turmoil, and it animated the initial governmental responses of central banks as apparently 'illiquid markets' became the object to be acted on through so-called 'liquidity injections'. By late summer 2008, however, it seemed that the spectre of illiquidity had not been successfully dealt with, especially in markets for what became known in popular parlance as 'toxic assets'. Related to and derived from sub-prime mortgages, these instruments continued to appear as the source of massive losses which threatened the solvency of many banks and financial institutions. It was the reaction of markets to the events of the weekend of 12-14 September 2008 that was nonetheless crucial to bringing the TARP forward, a proposed intervention that explicitly targeted toxic assets. As Lehman Brothers collapsed to create the largest corporate bankruptcy in US history, and as Merrill Lynch was acquired by Bank of America at a fire-sale price after the Federal Reserve had siphoned-off Merrill's toxic assets, fears over the solvency of all manner of financial institutions took hold. Banks' share prices tumbled, putting further pressure on their balance sheets and making their insolvency more likely. By 16 September, the Federal Reserve apparently had little choice but to deem American International Group (AIG) 'too

big to fail'. The TARP proposals - put before Congress by then Treasury Secretary Henry (Hank) Paulson on 19 September and ultimately passed as the Emergency Economic Stabilization Act of 2008 on 3 October - sought to draw a line in the sand amidst the tumult.

Making the crisis actionable as a 'liquidity crisis' was a crucial discursive element that gave form to the TARP as an apparatus of security. 'Liquidity' has many meanings in economic theory and practice (Nesvetailova, 2010). But, in the narrow sense that was significant to the TARP, liquidity referred to a well-developed market with particular qualitative characteristics: a 'deep' market in standardized assets which is populated by a crowd of willing buyers and sellers who are able to exchange assets without producing significant price disruption. Assets in a liquid market thus become regarded as fungible, safe and desirable by investors, and are in constant circulation. As the other and constitutive outside of a liquid market, an illiquid market is one where buyers are absent and desperate sellers are likely to be struggling to exchange toxic assets and to be confronted by wide and volatile spreads between the 'bid' and 'ask' prices.

It was in these terms, then, that the specific problems with sub-prime assets were rendered by the TARP, creating a sense in which their illiquidity was abnormal and uncharacteristic of the ways in which markets function. In working on and through liquidity and 'the market' as 'a site and mechanism for the formation of truth' (Foucault, 2008: 30), the TARP apparatus cast the event of illiquidity as a 'chimera' that either 'cannot exist' or, when it comes into view, is not 'a natural reality' but 'no more than the aberrant result of a number of artificial measures that were themselves aberrant' (Foucault, 2007: 40-1). It was thus highly significant that the TARP proposals sought to purchase toxic assets from investors in the expectation that, once the seemingly peculiar moment of illiquidity had passed, they could be once again be sold

into a liquid market. In the terms of Federal Reserve Chairman Ben Bernanke (2008), the purchase of toxic assets by the Treasury and their subsequent re-sale would enable 'price discovery', encouraging investors to return to these asset markets and, ultimately, restoring flows of mortgage lending and financial circulations more broadly.

As the TARP rendered the crisis as moment when the market norm of liquidity had been lost, a wide array of models, techniques and organisational strategies which had held sway in financial markets from the mid-1990s were also important elements in the apparatus. Liquid markets became objectified during the run up to the crisis, a known thing or object that was regarded by investors as independent and external to them, as having a 'life of their own' in setting and moving prices, facilitating exchange, managing risk and so on. Indeed, the reification of liquid markets had been present in sub-prime market networks which seemed to exemplify what was possible during the boom. For example, on the lending side, sub-prime epitomised what was known as the 'originate and distribute' model which was being championed in commercial banking. For banks and sub-prime non-banks alike, apparently liquid markets made it possible to originate new assets (e.g. mortgages, loans, credit card balances) and to move them 'off-balance sheet' and into circulation by securitising and repackaging them as risk instruments purchased and exchanged by investors. Meanwhile, on the investment side, those with a stake in sub-prime assets could enact highly-leveraged strategies, apparently safe in the knowledge that, in liquid markets, they could easily roll-over their short-term borrowing or sell the assets that they held. Not only was the proprietary trading of Wall Street's investment banks highly-leveraged through the perpetual roll-over of increasingly short-term debt, for instance. Their so-called 'prime brokerage' businesses lent in support of the similarly highly-leveraged strategies of hedge funds, and became involved with banks of all kinds in the off-balance sheet 'liquidity leverage' of structured investment

vehicles (SIVs) (*The Economist*, 2008a: 4). As a key part of the ‘shadow banking sector’, SIVs sought to take advantage of interest rate arbitrage, borrowing short-term ‘surplus liquidity’ in asset-backed commercial paper markets and investing for the ‘enhanced yield’ that was apparently on offer from MBS and especially structured CDOs.

When ‘announcing the crisis’ (Foucault, 2007: 61), and forging illiquid and toxic asset markets not merely as a problem but as the object to be acted on, relations with several further material devices were also significant to the TARP apparatus. Bank balance sheets and credit default swap (CDS) contracts were, in particular, crucial to creating the ‘material givens’ (Foucault, 2007: 19) through which and on which the TARP apparatus was to operate. To be clear, these calculative devices did not simply describe and classify the turbulence in global circulations. Rather, by providing measures of the decline in the value of toxic assets in the present through probabilistic and predictive calculations of the future, these devices necessarily contributed to the terms through which the crisis itself came to be understood and acted upon by the TARP.

It was on balance sheets where the declining values of the sub-prime assets were literally ‘booked’ or ‘written-down’, an accounting move whereby these assets were re-valued to a certain amount in the dollar. And, by virtue of the balance sheet as a device that sets assets against liabilities (including deposits and short- and long-term debt), this also meant that capital was set-aside on the liabilities side to absorb losses. At the point at which the TARP proposals came before Congress, investors were widely known to have made a cumulative total of US\$500 billion in write-downs on sub-prime assets since September 2007 (Tett, 2008). When contributing to establishing the material givens upon which the TARP apparatus was to act, CDS contracts were also a crucial element in two main respects. First, in writing-

down and revaluing specific sub-prime assets on their balance sheets, investors' calculations included the extent to which their losses were covered (hedged) by CDS contracts on those assets. CDS are 'over-the-counter' or bespoke derivative contracts written and sold by institutions that seek a stake in the risk/return characteristics of specific underlying debt instruments, without investing in the instruments themselves. Immediately prior to the TARP proposal coming before Congress, the collapse of Lehman Brothers, a major dealer in CDS, had created further trepidation about the value of sub-prime assets (*The Economist*, 2008b). Moreover, when the Fed extended AIG an US\$85 billion loan, it had sought to make it possible for the insurer to make good on the payouts arising from credit events in the US\$450 billion worth of CDS that it had written and sold (Felsted and Burgess, 2008). The extent of the material given of illiquid sub-prime assets was, then, inextricably bound up whether the CDS market would hold up. Second, premiums for CDS contracts were also a significant measure of the apparent illiquidity of sub-prime assets (Tett, 2009). A spike in the price for CDS contracts written against bonds issued by a particular financial institution were commonly taken as an indication that it may not have sufficient capital to cover its losses from assets that had gone toxic (Larsen and Scholtes, 2008). More directly and in terms of contracts written on sub-prime CDOs themselves, rising CDS premiums were taken as an indication of the illiquidity and declining value of the underlying instruments.

For the TARP apparatus, then, it was the resonance between prevailing economic theories of liquid markets, financial market models and strategies, and the calculations of bank balance sheets and CDS contracts that, taken together, rendered the crisis as a problem of illiquidity and toxicity. Relations with further discursive and institutional elements were vital, moreover, to the ways in which the TARP appeared to hold out a solution to that problem. The TARP did not seek to respond to the grinding halt in markets by taking toxic assets into a

‘bad bank’ and out of circulation once and for all, or by closing down markets for MBS and CDOs. This juridical and disciplinary response could conceivably have restored the general circulations of financial markets, but it was not the course of action that was charted. Instead, in Foucault’s (2007: 65) terms, the seeming solution to the problem of illiquidity turned on ‘sifting the good from the bad, ensuring that things are always in movement ... but in such a way that the inherent dangers of this circulation are cancelled out’.

The TARP was enacted through the relation of elements which explicitly positioned the attempt to restore liquidity in sub-prime asset markets as crucial to individual freedom and the liberal way of life. Now, money in circulation is crucial to the individualism of modern society: the loosening of social ties enabled by the holding of money appears to enlarge the scope of individual freedom by making all things and desires available at a price (Simmel, 1990). But, the TARP apparatus also featured a discursive element that iteratively worked on the associations of money and freedom by melding the restoration of the liquid circulation of sub-prime assets with the future individual and collective life prospects of the population. There was, in short, an explicit acknowledgement that illiquidity in wholesale markets threatened the freedom and security enabled by mortgage finance, credit money and retail finance in general.

Particularly illustrative in this respect is the televised address to the nation delivered by President George W. Bush (2008) during the period in which the TARP proposals were before Congress. As Bush put it, ‘This rescue effort is not aimed at preserving any individual company or industry. It is aimed at preserving America’s overall economy’. With this in mind, he set out what the possible costs of inaction could be for the security of the population:

... without immediate action by Congress, America could slip into a financial panic and a distressing scenario would unfold. More banks could fail ... The stock market would drop even more, which would reduce the value of your retirement account. The value of your home could plummet ... Even if you have good credit history, it would be more difficult for you to get the loans you need to buy a car or send your children to college.

Bush's televised address left viewers in little doubt that toxic assets were a problem for the American way of life, and that the TARP provided the solution that would successfully act on that problem by restoring circulation. As he later put it, following the initial rejection of the TARP proposals by the House of Representatives, action was needed 'for the financial security of every American' (in Politi, 2008).

Such a biopolitical rationality resonated strongly with an apparent solution to the crisis that turned not on a central banking intervention by the Federal Reserve, but on the institution of the U.S Treasury. While the remit of the Federal Reserve system extends to monetary policy, banking regulation, maintaining the payments system and ensuring financial market stability, the Treasury's fiscal responsibilities and stewardship of the growth and stability of the national economy are explicitly undertaken in the name of the population. It was on the basis of this authorisation which dates to the end of the eighteenth-century, and the associated and unique capacity that it bestows to the Treasury in the issue of US government debt instruments ('T-bonds'), that it was the principal institutional element in the forging of the security apparatus of the TARP. In order that toxic assets could be purchased and temporarily taken out of circulation by the Treasury, however, they had to be valued and priced. The proposed sifting mechanism for cancelling out illiquidity and making toxic assets knowable

and actionable, and thus a significant further institutional element in the forging of the TARP apparatus, was to be a reverse auction process conducted by the Treasury. It was envisaged that the Treasury would offer to buy certain classes of toxic assets at a particular price, and investors would decide whether to sell at that price. The decisive issue was whether it was indeed possible to assign values and prices to toxic assets, whether the authority of the Treasury could do what markets had been unable to do for the previous year.

From toxic assets to bank recapitalisation

The reverse auction process arguably went right to the heart, then, of the TARP as a security apparatus which sought to restore market liquidity and financial circulations by working on the future through the rubric of risk. It was only through probabilistic risk calculations that valuations, and thus the prices which symbolise those valuations, could be arrived at for the particular toxic assets to be purchased by the Treasury's reverse auction process. Amidst the on-going and extreme market turbulence of late September and early October 2008, however, questions as to whether it was possible to value and price toxic assets fed into a wider debates about the most appropriate form that governmental interventions in the crisis should take. High-profile economists and financial journalists who either doubted the potential efficacy of an intervention that targeted toxic assets from the outset, or who felt once the TARP legislation had been passed that the valuation and pricing of toxic assets became impracticable, stressed that it was on the liabilities side of banks' balance sheets where action to directly recapitalise institutions could be most successful (e.g. Krugman, 2008; Soros, 2008; Stiglitz, 2008; Wolf, 2008). And, the Bush administration and Treasury officials were far from immune to the alternative recapitalisation argument, especially given the seeming urgency of the situation (Paulson, 2010).

Bank recapitalisation was precisely the type of crisis management intervention that was underway elsewhere during early October, most notably in the UK where the crisis had increasingly been rendered as a crisis of bank solvency that required a 'bank bailout'. Half of Prime Minister Gordon Brown's £500 billion emergency financial rescue package was earmarked to guarantee bank's short and medium term wholesale debt obligations, but it also purchased preference shares worth £37 billion in two struggling banks (RBS and Lloyds TSB). Further and similar equity stakes in these banks worth £39 billion were purchased in the following month. Indeed, it was Brown's crisis management solution of direct bank recapitalisation that was embraced by a meeting of the Group of 7 (G-7) finance ministers and central bankers in Washington on 10 October (G-7 Finance Ministers and Central Bank Governors, 2008). As such, and in his statement released following the meeting, US Treasury Secretary Paulson (2008) continued not rule out 'the approach we are taking to broad mortgage asset purchases', but also set out the bare bones of 'plans to purchase equity ... on a non-voting basis'. Critical in making these revised plans possible was an aspect of the legislative element of the TARP apparatus which enshrined the authorisation of the Treasury, and which gave the Treasury Secretary 'discretion ... to purchase other assets, as deemed necessary to effectively stabilize financial markets' (US Treasury Department, 2008).

As of 14 October, less than two weeks after the TARP had passed into law, it was announced that the first US\$250 billion of its funds would be used by the new Capital Purchase Program to recapitalise US banks through the purchase of preference shares. Half of this funding was to be invested in the nine largest US banks, which now included the remaining former investment banks Goldman Sachs and Morgan Stanley who had changed their legal status to bank holding companies during the turbulence. Under the terms of the recapitalisation that

came to embrace over 200 institutions in total, banks which were deemed by regulators to require investment could not turn it down. The purchase of illiquid sub-prime assets by US Treasury through the TARP apparatus was officially abandoned in mid-November 2008, and US\$40 billion of TARP monies was invested in AIG in the same month and US\$25 billion in automakers and their financial arms in December. That said, November 2008 did see TARP monies set aside to contribute to public guarantees on the value of toxic assets purchased by so-called 'vulture investors' from the books of Citigroup, an insurance-style approach to the ongoing problem of illiquid assets which was repeated for Bank of America in January 2009 and with limited success in the Obama administration's Public-Private Investment Program (P-PIP) of March 2009. The broad reorientation of the TARP apparatus to bank solvency as the object to be acted on through recapitalisation remained, however, as Congress granted the release of the second half of the TARP monies in January 2009 and thereafter throughout the first years of the Obama administration. By the end of the summer of 2009, and following a celebrated programme of 'stress testing' that measured bank's preparedness for imagined future macroeconomic scenarios, all but the most troubled banks began buying back their shares and repaying the TARP monies (Langley, forthcoming 2013). At the end of the financial year 2010-11, the TARP held only US\$30 billion worth of bank preference shares on which the Congressional Oversight Board (2011: 177) expected eventual losses to be 'relatively small'.

The trials, tribulations and dynamism of the TARP can thus be seen to underline the contingency of biopolitical security and the governmental orderings of apparatuses which seek to keep uncertain global financial circulations in motion in times of crisis. That the TARP did not conform to its conceived purpose was not all that surprising. It was, after all, a fragile bricolage of heterogeneous elements that urgently came together. As Rabinow and

Rose (2003: *xvii*) put it, ‘despite the initial intention that an apparatus will respond in a targeted way to a particular problem to achieve a specific strategic objective, diverse and unplanned effects can and do result’. More broadly, and as Deleuze’s (2006) reading of Foucault’s concept of *dispositif* suggests, that which an apparatus seeks to act upon in the name of the biopolitical security always, to a greater or lesser extent, escapes its ordering intervention.

Yet, the unplanned reorientation of the TARP apparatus from the temporary purchase of toxic assets to the direct recapitalisation of US banks can also be seen as a key moment which heralded change in the techniques deployed to mitigate the dangers of uncertain global financial circulation. That the TARP ultimately configured bank solvency as the object to be acted on through direct recapitalisation was not, to be clear, a move away from the ‘option of circulation’ that Foucault (2007: 49) identifies as one of the defining characteristics of apparatuses of security. With the transformation of the TARP, the biopolitical security dilemma in the crisis was no longer primarily one of reviving circulation in sub-prime assets and secondary mortgage markets more widely, but of how best to get solvent and stabilized banks lending once again. For example, as Congress considered whether to release the second US\$350 billion of TARP monies in January 2009, the Congressional Oversight Panel (2009a) was highly critical of the way in which the initial purchase of preference shares in banks had not been combined with accountability mechanisms that would have required lending to consumers and businesses. Not dissimilarly, when the Obama administration undertook its program of stress testing in Spring of 2009 in order to determine which of the largest 19 US banks required further recapitalisation through the TARP, the Treasury emphasised that the objective of the program was to ensure that creditworthy borrowers would continue to be able to get access to finance ‘in the event of a weaker-than-expected economic environment and

larger-than-estimated losses' (Congressional Oversight Panel, 2009b: 3). And, when banks were permitted during the latter half of 2009 to repay the TARP monies that they had received by way of recapitalisation, they were cast as materially capable of producing the flows of credit crucial to the freedom and security of the liberal way of life.

At stake as the TARP directly recapitalised US banks was, in effect, the beginnings of a subtle shift in the primary means through which the destructive potential of the uncertainties of global financial circulations were to be alleviated. From the mid-1990s and persisting as the TARP was initially forged as an apparatus that would sift bad assets, the predominant 'mechanism of mitigation' (Collier, 2008) for assuaging the dangers of global financial circulation was supposed to operate through the pricing and distribution of 'risks' amongst investors in liquid markets. This means of probabilistic risk management was performed in banking organizations through value-at-risk (VaR) models which, emerging from the wake of the 1987 stock market crash, put a number on the amount a bank could expect to lose on its portfolio of assets on a relatively bad day. It had also been thoroughly legitimated by the 1997 revision to the Bank of International Settlement's Basel capital adequacy standards that, while making provisions for a whole host of risks, notably did not include codes of conduct for dealing with 'liquidity risk' (Nesvetailova, 2007). Related, techniques of asset-backed securitisation and structured finance had ensured that default risks arising from mortgages and all manner of loans were moved off bank's balance sheets, and were sliced, diced, priced and traded by investors (Partnoy, 2004). And, while rapidly growing 'over-the-counter' markets for credit derivatives promised prior to the crisis that the default risks of specific assets (e.g. a corporate bond) could be hedged through bespoke contracts, they also served to enable trading in volatility and variance which was marked by its indifference to the performance of underlying assets (Wigan, 2009).

So, as the TARP came to operate to purchase preference shares and directly recapitalise banks, change began to take hold in the primary mechanism for mitigation in the governing of global financial circulations. The TARP was the beginning of a move away from reliance on the probabilistic pricing and distribution of risks through markets, and from the logic of preemption which, as Louise Amoore (2011) argues, is promoted by the arraying of a range of possible futures in derivatives markets. Like all recapitalisation drives in contemporary crisis management and subsequent regulatory attempts to improve the so-called 'resilience' of banks, the TARP effectively sought to invigorate preparedness as a mechanism for dealing with the dangers of the uncertain financial future. As Ben Anderson (2010) has it with reference to a wide range of techniques that govern liberal life through risk and uncertainty, 'preparedness' can be distinguished from mechanisms of 'precaution' and 'preemption'. As he describes these mechanisms or 'logics':

both precaution and preemption aim to stop the occurrence of a future, by either stopping a process before it reaches a point of irreversibility or initiating a new process. Preparedness is different. Its sphere of operation is a series of events after a precipitating event. Unlike precaution or preemption, preparedness does not aim to stop a future event happening. Rather, intervention aims to stop the effects of an event disrupting the circulations and interdependencies that make up a valued life (p. 791).

The TARP did not seek to make a future of bank insolvency actionable in the present by simply reverting to the kinds of precautionary mechanisms that prevailed before probabilistic financial risk management practices took hold. So, although the TARP sought to boost the volume of capital that banks held, it did not signal a return to the Basel I rules of the late 1980s wherein closely monitored holdings of capital set absolute limits upon a relatively

static set of assets on bank balance sheets. Rather, and as it was developed further in the Spring of 2009 to incorporate the techniques of stress testing in particular, the future dangers that the TARP sought to prepare recapitalised U.S. banks for were not those which were calculated and priced as probable and based on induction from past events, but those that, for the high-impact, low-probability events especially, were quite unprecedented historically.

Conclusions

With specific reference to the US Treasury's crucial TARP initiative in the governance of the recent financial crisis, this article has added to the growing body of research concerned with how the logics, calculations and techniques of finance relate to processes of securitisation. Inquiry into the interstices of finance/security has to date erred somewhat towards the financialization of security, exploring the ways in which risk markets, insurance and derivatives, for example, enter into the securitization of the uncertain future in the present (Aitken, 2011; Lobo-Guerrero, 2011; Martin, 2007). But, finance itself is also securitized in a range of different ways, rendered and governed as problem of security in the war on terror, for instance (de Goede 2012), and in terms of providing for wealth and well-being in individualized liberal life more broadly (Langley, 2008; Martin, 2002). What this article has shown, in the first instance, is how the TARP acted on the crisis not simply as a crisis of the financial markets, the banks and of Wall Street. Contrary to the common sense produced through accounts of financial crisis governance in economics and political economy, the TARP was an intervention made in the name of the problem of the security of the American population.

The later writings of Michel Foucault have been crucial to the analysis that has been offered throughout this article. Foucault's work has, in broad terms, provided the insights through which the securitization of finance has been understood to turn on a biopolitical rationality, wherein the truths, technologies, calculations and circulations of financial markets have become pivotal to the contemporary individualized security of the population. This a modality of power which, in liberal governmental responses to the turbulence and insecurities of financial crises, also reworks the techniques and institutions of monetary, fiscal and regulatory sovereignty. The contemporary crisis governance of finance, forged in the name of the problem of biopolitical security, thus does not witness significant attempts to rule-out or regulate-away the uncertain future of financial circulations. There is, in short, no attempt to crisis-proof finance. Instead, biopolitical crisis governance is ambiguous in its relation to uncertain financial circulations: on the one hand, it seeks to restore and keep open the opportunities that these circulations apparently afford for the wealth and well-being of the population; on the other hand, it seeks to find new ways to sort and address the dangers that these circulations undoubtedly hold for liberal life.

Moreover, and specifically, this article has drawn on Foucault's (1980; 2007) concepts of '*dispositif*' and 'apparatuses of security' in order to make two further contributions to the analysis of the interstices of finance/security. First, and as elaborated through my detailed account of the TARP as a discrete security apparatus, it has been demonstrated how this concept can facilitate analytical concerns with both the operation of a biopolitical rationality of power and the specific practices of finance/security. Rather than produced by an already present and all-encompassing modality of power relations, biopolitical security takes contingent, processual and lively forms as discrete governmental orderings are enacted. As such, the TARP apparatus certainly amounted to a biopolitical intervention in the crisis, but it

only emerged from the relation between the discursive, material and institutional elements which made it possible. Second, and related, while the transformation of the TARP into an apparatus that acted on the problem bank solvency and capitalisation has been analysed here to further illustrate the contingency of biopolitical security, it has also been shown to have been, in effect, a key moment that heralded change in the mitigation mechanisms than seek to diffuse the dangers of uncertain global financial circulations. Foucauldian-inspired accounts of how liberal life is governed through risk and uncertainty tend to stress the contemporary proliferation of imaginative and anticipatory techniques. This was, however, certainly not the case in financial governance prior to the post-2007 crisis. And, as has been argued here, these techniques have only gained significant traction in the financial domain after the TARP's contingent transformation, after its reverse auction process was confronted by the limit points of probabilistic risk and thereby failed to respond to the turbulence through the temporary purchase of toxic assets.

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