Luck, Justice and Systemic Financial Risk

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Risk in a globalised, interdependent and de-territorialised world has a ubiquitous quality. Consider the complex chains of individual consumer and financial transactions widely attributed with bringing about the 2008-09 economic crisis (the so-called Great Recession), the effects of which remain with us to this day. The Great Recession brought attention to a tragedy of the commons in financial markets, in which market participants, from the first-time home buyer, to the most sophisticated market actors on Wall Street, in the City of London and in other major financial centres, acted in ways beneficial to each of them individually, but when those actions combined together the result was catastrophic. The Great Recession was a man-made disaster with features all too similar to other man-made disasters such as climate change or depletion of natural resources.[1]

At least two kinds of risk are at play in complex chains of transactions in financial markets: ordinary market risk and systemic risk. Ordinary market risk is risk that one assumes for oneself when one transacts in a market. For example, if I buy a house, I assume the risk that the value of the house will decline. I also assume the benefit of a rise in the price of the house. Systemic risk is different. My transaction does not impose a risk on me, or at least not only on me, but also on others. The World Economic Forum has identified systemic financial risk as a major global concern in

[*] My sincerest thanks to Orkun Akseli, Carl Cranor, Rita de la Feria, William Lucy, and Pietro Maffettone for their helpful comments. If I have left anyone out of this list, my apologies. My sincerest thanks also to two anonymous referees for their valuable and constructive comments, from which this article has benefitted substantially. All errors are mine.

[1] The result is even similar to natural disasters, which in some cases, while not preventable, are foreseeable and precautions to mitigate risk *ex ante* are reasonable.

its 2014 report, *Global Risks 2014*.[2] That report defines systemic risk as:

> the risk of 'breakdowns in an entire system, as opposed to breakdowns in individual parts and components'. Systemic risks are characterized by:
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> – modest tipping points combining indirectly to produce large failures
> – risk-sharing or contagion, as one loss triggers a chain of others
> – 'hysteresis,' or systems being unable to recover equilibrium after a shock.[3]

Using this definition, in the actions leading to the Great Recession, market or institutional failure did not only affect the market participants in their own transactions. That would be market risk. Rather, the financial loss spread like a contagion, triggering a chain of catastrophic shocks to the financial markets, leading to a global economic crisis of catastrophic proportions.

Such collective harm cases beg for an institutional response. No single action of any one market participant will be sufficient to mitigate systemic risk. Systemic risk mitigation requires substantial coordination, *ex ante* regulation by authorities, and assurances that regulation will be effective. The law can be designed to either prevent harm from occurring, to provide compensation or other remedy *ex post* in the event harm occurs, or both. It is in large part a problem relating to the structure of a society, about how institutions shape or limit the range of individual actions.

Two moral questions are relevant in these contexts. First, does a person have a

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[2] World Economic Forum, *Global Risks 2014* (9th ed.).

[3] *Ibid.,* p. 12. The Report quotes G.G. Kaufman & K. E Scott, 'What is Systemic Risk, and Do Bank Regulators Retard or Contribute to It?, *Independent Review* 7 (2003), pp. 371-391, 371. In an early important article on systemic risk and global financial crises, Steven Schwarcz defined systemic risk in the context of a failure of financial markets as follows:

> [T]he risk that (i) an economic shock such as market or institutional failure triggers (through a panic or otherwise) either (X) the failure of a chain of markets or institutions or (Y) a chain of significant losses to financial institutions, (ii) resulting in increases in the cost of capital or decreases in its availability, often evidenced by substantial financial-market-price volatility.

Steven L. Schwarz, 'Systemic Risk,' *Georgetown Law Journal* 97 (2008), pp. 193-249, 204. *See also* Viral V. Acharya, Lasse Pederson, Thomas Philippon & Mathew Richardson, 'Regulating Systemic Risk,' in Viral V. Acharya & M. Richardson eds., *Restoring Financial Stability: How to Repair a Failed System* (Hoboken: Wiley): 283-303; Olivier de Bandt & Philip Hartmann, 'Systemic Risk: A Survey,' European Central Bank Working Paper 35 (Nov. 2000).

moral duty to avoid loss or harm (or risk of loss or harm) to others if her financial transactions contribute in some way, however small, to the loss or harm? In such cases the actions of a person, on her own, cause no harm or loss, but when taken together with the actions of others, causes harm or loss, sometimes substantial harm or loss. I do not mean loss or harm relating to the bargaining power of persons in a contractual privity relationship, such as between debtor and creditor. Rather, I mean loss or harm to third persons not party to any contract with the parties to the transaction. As we shall see, the answer to this question does not proceed along the lines of a simple generalisation around the idea of 'what if everyone did that'?

Second, how should society distribute the risk of loss associated with economic crises? The distribution to which I refer is not distribution within an exchange or transaction, for that would take us back into the debtor-creditor relationship, but risk across persons who may or may not be party to particular exchanges or transactions. The answer to the first question may be relevant to the second but not in all cases or in all approaches to answering these questions. The questions are related to the extent that we want to distribute risks on the basis of some concept of moral responsibility.

For the second question, what is relevant is distribution of burdens and benefits through regulation by the state.[4] The primary aim of egalitarian theory is to mitigate or eliminate risk to persons in a way that complies with suitable principles of fair distribution. When we look at the collective nature of these risks, we ask how we might distribute the risk, or at least distribute the burdens of a regulatory regime

[4] To be clear, loss or harm cannot be neatly separated from risk of loss or harm. *See* Claire Finkelstein, 'Is Risk A Harm,' *University of Pennsylvania Law Review* 151 (2003), pp. 963-1001. Risk of loss or harm is simply loss or harm discounted by the probability of the risk-causing event occurring. For example, if a 50% chance of a $100,000 loss exists, then the risk exposure to a rational, risk neutral person is $50,000. In other words, a rational, risk neutral person would buy $50,000 of insurance, if available at an acceptable cost, to cover the potential loss. When we talk about who bears a risk we ask who bears the cost of a risk-causing activity, or in our focus here, on the cost or burdens of taking measures to prevent harm or loss from occurring.

designed to avoid or mitigate the risk.

A number of ways to distribute the burdens of risk present themselves to us. We could distribute on the basis of a consequentialist account of economic externalities and a requirement that people bear the full social costs for their activities. We could distribute using a contractualist standard of reasonable rejection, such as on the basis of a Rawlsian-type difference principle. As I show below, luck egalitarianism offers promise in working through these issues if we are interested in considerations of both equality and responsibility.

These two questions can be understood from interactional and institutional standpoints. For interactional morality, the focus is on individual action. It places demands directly on persons.[5] Another approach is institutional.[6] It takes the morality of communities, or what is usually known as political morality, to be primary. Finance is a human activity, a set of social practices made possible by institutions. These actions, social practices, and institutions have consequences for persons who engage in financial transactions as well for the general population, which includes many who do not engage in financial transactions or engage in transactions with no consequences by themselves. We therefore have to ask what moral obligations institutions 'deliver' for us as a community. The second approach takes into account that institutions have great influence on the sorts of risk that might arise in financial markets and how these risks are distributed. Massively complex financial markets, which connect strangers in webs of transactions that can span the globe and cross

[5] These concepts are from Thomas Pogge, 'Cosmopolitanism and Sovereignty,' *Ethics* 103(1) (1992), pp. 48-75; Thomas Pogge, *John Rawls: His Life and Theory of Justice* (Oxford University Press, 2007), pp. 31-34.

[6] *See* Carl F. Cranor, 'Collective and Individual Duties to Address Global Warming,' in David M. Driesen, *Economic Thought and U.S. Climate Change Policy* (MIT Press, 2010), pp. 155-169; Carl F. Cranor, 'Collective and Individual Duties to Protect the Environment,' *Journal of Applied Philosophy* 2 (1985), pp. 243-259.

borders with the stroke of a keyboard, cannot exist without institutions.

This is a work of moral and political philosophy. My aim here is to articulate the moral concepts that we might want to use either to inform the promulgation of law regulating financial markets or to justify that law from a moral point of view. The moral theories applied below cannot tell us, however, which approaches to financial regulation might be effective in an economic sense, as that is a question of economic policy, not philosophy. An egalitarian asks, of the menu of available economic policies, which is fair or just in a distributional sense? This is not to suggest that egalitarian and other moral concerns have to give way to economic ones or that economics is overriding. In fact a society might accept some levels of cost and inefficiency to obtain a relatively fairer result in law and public policy.

We also need to be clear that the discussion proceeds from the assumption that societies are in a position to maintain adequate credit markets and financial institutions for the supply of mortgage credit to homeowners, in economic conditions, including employment conditions and consumption patterns, in which home ownership is economically feasible. This paper does not deal with problems of extreme poverty associated with the lack of functioning credit and other market institutions. Having stated this qualification, the systemic risk flowing from risky financial activities can have serious adverse affects on countries lacking such institutions as well as their populaces. It is also important to clarify that the discussion to follow is directed at the home mortgage market, the collapse of which in specific countries is widely understood to have been a primary contagion for the Great Recession.

1. Moral Responsibility of Individual Agents

What moral responsibility might an individual agent have in cases in which the agent's financial decisions are unlikely to cause financial harm or loss to others on their own but when accumulated with the decisions of many others risks substantial financial harm? Preliminarily, I want to rule out the discussion of financial crises for single agents, with no implications of external effects on others, except possibly for persons with which our single agent might have some sort of contractual privity. In such cases, moral responsibility may be relevant, if it is true that failure to pay one's debts through one's own fault has moral relevance, though it might not be so easy to distinguish individual circumstances from structural causes for a person's financial problems.[7] This paper is not about these cases. Rather, the focus here is on financial crises for states and societies, which, given the economic interdependence of states, spill over to be international in effect. The focus in this part of the paper is on interactional morality, on the moral responsibility of persons in these cases.

From the standpoint of individual agency, three conditions are relevant, which we can specify as freedom-relevant, practical and epistemic.[8] The freedom-relevant condition captures the idea that a person can be morally responsible only if she acts freely. It deals with the question of alternate possibilities. The basic intuition is that we cannot be morally responsible unless we could do otherwise. This may be false, if compatibilists are right. A 'metaphysics free' version of free agency can be posed here, focusing on the intrusion of institutions and social structure on agency. Intervention by these socially constructed forces might take away from the

[7] *See* Iris Marion Young, *Responsibility for Justice* (Oxford University Press, 2011). As explained in the section to follow, a focus on desert rather than on choice can help to deal with when so-called bad brute luck should be neutralized in debt contracts.

[8] I adapt the 'freedom-relevant' language and concept from John Martin Fischer and Mark Ravizza eds., *Perspectives on Moral Responsibility* (Cornell University Press, 1993), p. 8. For a full account on the epistemic condition, see George Sher, *Who Knew: Responsibility Without Awareness* (Oxford University Press, 2009).

voluntariness of an act and might prevent an agent from being attributively responsible and hence affect the blameworthiness of an act.[9] Or, they might alter the determination of which principles it is reasonable to reject and therefore affect substantive responsibility, or what an agent owes as moral duties to others.[10] These considerations have special relevance in the case of contributory harm of the sort we are talking about here, where chains of events might combine to result in harm to many people. It just might be true, as an empirical matter, that institutions, if sufficiently pervasive, restrict freedom in such a way as to relieve a person of moral responsibility.[11]

The practical condition deals with the question whether a person's actions make a difference. Why do we care about the agent's actions or failure to act? The practical condition is strictly necessary for a consequentialist argument to be successful. Consequentialism condemns an act only if it makes a difference. In the case of mass financial harm of the sort under consideration here, an agent's act on its own likely does make a difference, but the difference may be negligible, or, in Derek Parfit's terminology, imperceptible. Parfit argues that it is a mistake to claim that if some act produces imperceptible effects, then it cannot be wrong, because the sum of imperceptible effects adds up to perceptible effects. The contribution of a single person matters.[12] But the sort of generalisation arguments that consequentalists employ in these kinds of mass harm cases cannot lead to the conclusion that *no one*

[9] I use here Scanlon's distinction between attributive and substantive responsibility. T.M. Scanlon, *What We Owe to Each Other* (Harvard University Press, 1998), pp. 248-294.
[10] These concepts are from Scanlon, n. 9.
[11] A contractualist might base the freedom-relevant condition on Scanlon's Causal Thesis. *Ibid.,* pp. 261-276.
[12] Derek Parfit, *Reasons and Persons* (Oxford University Press, 1984). Parfit's more recent work is Kantian in approach. Derek Parfit, *On What Matters* (Oxford University Press, 2011), Vol. 1, pp. 301-320. *See also* Shelly Kagan, 'Do I Make a Difference?,' *Philosophy and Public Affairs* 39(2) (2011), pp. 105-141.

should take action that could result in harm collectively when many do it.[13] There may be some threshold at which *some* people doing the particular act might too low a number to trigger the feared harm, or it may actually be desirable if those persons so act. A potential weakness for consequentialism to operate in these complex financial cases is the need for substantial information available to persons to know which of them can act. It is less demanding on persons if institutions do the allocating of permissible actions for them.

For contractualists (and other deontologists), bad consequences are not dispositive to the outcome of moral deliberation or appraisal, but are still relevant. The main concern in a contractualist account is not whether some moral principle prohibits acts that contribute imperceptible differences to bad consequences but that it might place unreasonably disproportionate burdens on a person to avoid contributing to harm to others. The focus of contractualist argument is not on consequences alone or primarily but on why it is wrong to act or not to act in the face of consequences.

The epistemic condition relates to the knowledge of the agent deliberating on action. What if an agent neither knows nor should have known that their act causes or contributes to harm? There are a number of elements in a full account of the epistemic condition. For example, George Sher's 'full epistemic condition' or FEC for moral responsibility specifies a number of conditions for praise or blameworthiness.[14] Two

[13] Questions about generalisation became prominent in the work of Marcus Singer, with the publication in 1961 of his *Generalization in Ethics - An Essay in the Logic of Ethics, with the Rudiments of a System of Moral Philosophy* (Knopf, 1961). The above is influenced by Edna Ullman-Margalit's critique of Singer. Edna Ullman Margalit, 'The Generalization Argument: Where Does the Obligation Lie?,' *The Journal of Philosophy* 73 (15) (1976), pp. 511-522, p. 513.

[14] Sher's FEC is as follows:

> When someone performs an act in a way that satisfies the voluntariness condition, and when he also satisfies any other conditions for responsibility that are independent of the epistemic condition, he is responsible for his act's morally or prudentially relevant feature if, but only if, he either
> (1) is consciously aware that the act has that feature (i.e., is wrong or foolish or right or prudent) when he performs it; or else

of these conditions very roughly comprise what in the law might be understood as a negligence standard: knew or should have known. If a person knows or should know that their actions harm others, then the epistemic condition is satisfied for declaring their actions to be wrong. Sher also argues for moral wrongness when some act 'falls below some applicable standard,' and 'is caused by the interaction of some combination of his constitutive attitudes, dispositions, and traits'.[15] This latter standard captures the idea of greed in a financial context: a greedy person has the wrong constitutive attitudes and is morally responsible for the financial harm she causes or contributes to, even if she does not know, nor ought to have known, of the harm. This distinction is important, for example, to distinguish home lenders who enter into a subprime mortgage to be able to afford a decent home for their family and those who do so because they have been irresponsible about credit.

Using the three conditions, we can test out alternative moral principles using well-accepted constructivist methods. Start with a simple contributory harm principle:

> Principle CH: It is wrong to act in ways that contribute to harm to another person.

What does it mean to contribute to harm to others? The contribution feature in Principle CH assists in compliance with the practical condition. Implicit in Principle CH is that an imperceptible difference has moral significance, but we know that an imperceptible difference on its own is not a significant problem for either consequentialist or contractualists. The main concern about Principle CH, at least to a

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> (2) is unaware that the act is wrong or foolish despite having evidence for its wrongness or foolishness his failure to recognize which
> (a) falls below some applicable standard, and
> (b) is caused by the interaction of some combination of his constitutive attitudes, dispositions, and traits; or else
> (3) is unaware that the act is right or prudent despite having made enough cognitive contact with the evidence for its rightness or prudence to enable him to perform the act on that basis.

Sher, n. 8, p. 143. Sher calls FEC 'complicated and unlovely' *Ibid.,* p. 144.

[15] *Ibid.,* p. 143.

contractualist, is not whether it prohibits acts contributing an imperceptible difference to bad consequences but that it might place unreasonably disproportionate burdens on a person to avoid contributing to harm to others.[16] This is, in contrast, not a problem for consequentialists. The disproportionate burdens problem relates not to the practical condition but to the freedom-relevant condition. Principle CH lacks constraints of reasonableness, core to contractualism. Principle CH is too demanding to be contractualist though it may work as a consequentialist principle. Finally, Principle CH does not address the epistemic condition.

Consider the following modification:

> Principle CH_1: It is wrong to act in ways that contribute to harm to another person (or *n* persons) if an agent's refraining from acting would not place disproportionate burdens on the agent.

Notions of reasonableness and separateness of persons come into Principle CH_2. They are essential requirements in contractualism and serve to implement the freedom-relevant condition. These concepts give us some latitude to lessen the demands of generalisation arguments. The problem with these principles so far, however, is they do not address the epistemic condition.

What if an agent does not know nor could have known of the effects of her actions when combined with the actions of numerous others? Agents are unlikely to be morally responsible for outcomes about which they could not have reasonably known. Our reactive attitude in such cases will not be to condemn such acts. Moreover, there might be cases in which a person does not know or could not have known of the risks associated with their actions, yet we still might hold them morally responsible if we can point to some failure to meet an accepted standard of behaviour of the person

[16] Moreover, the focus of Principle CH is on wrongness and not undesirability as there may be many things which are undesirable but which do not involve morality. It may be undesirable to eat with one's hands rather than with cutlery or chopsticks but it is not a moral problem if many people engage in sloppy eating.

which would merit moral responsibility.[17] An agent likely has reason to reject attempts to make her morally responsible for actions she had no way of knowing would result in the harm they cause or which are not the result of failures to comply with well-accepted standards of behaviour relating to financial risk. The epistemic condition suggests a further modification of our principle:

> Principle CH_2: It is wrong to act in ways that contribute to harm to another person (or *n* persons) if
> (1a) the agent knew or should have known that her actions would contribute to the harm
> or
> (1b) the agent's actions fail to meet some applicable standard of behaviour resulting from a combination of constitutive attitudes, dispositions, and traits;
> and
> (2) the agent's refraining from acting would not place disproportionate burdens on her own freedom of action.

Principle CH_2 meets all three of our conditions. The harm contribution principle embedded within it meets the practical condition. The epistemic principles embedded in 1a and 1b meet the epistemic condition. The disproportionate burdens requirement in 2 brings Principle CH_2 into compliance with the freedom-relevant condition. The 'some applicable standard' language in 1b is from Sher's notion of 'some standard of rationality or reasonableness', which he argues are canonically expressed in tort and criminal law.[18]

With Principle CH_2 in hand, we can now begin to get more specific about financial harm contexts. In such contexts, not all of the participants in the collective action that is causing the harm are doing the same thing. Actors in a financial crisis situation are differentiated, in a way that makes a difference to moral responsibility.

[17] I am not convinced the applicable standard element, found in 1b of Principle CH_2, is needed if we have a properly objective and expansive 'should have known' element, but I will take Sher's approach as stipulated for our purposes. As we will see below, it helps us to clothe the 'greedy homeowner' with moral responsibility despite their lack of awareness of the harm their risky action produces.
[18] Sher, n. 8, p. 80.

Some of the relevant agents are unsophisticated consumers. Others are sophisticated financial institutions. The actions of some make a very significant difference to the crisis. Others are simply first time homebuyers working hard to buy a decent house for their family. Many individual actions by themselves may have been legally permissible and in fact encouraged by government policy, such as by mortgage securitisation, which the US federal government subsidised for many years, partly to encourage individual home ownership by those least able to afford it, though also to support the market for securities produced from mortgage securitisation, so-called mortgage-backed securities.[19]

To put some details in the analysis, assume a five-person society comprised of 'citizen', 'lender', 'consumer borrower', and 'market professional'. We can further divide 'market professional' into sophisticates and non-sophisticates. The lender lends mortgage loans to the consumer borrower. An example of a market professional who is also a sophisticate is a financial institution such as a bank, a loan originator or an institution responsible for securitising mortgages, such as a 'packager' of loans. [20] An example of a market professional who is probably not a sophisticate is a residential real estate agent. The financial institution could produce and trade in financial products that come from the debt contracts between borrower and lender. An example of such a product is mortgage-backed securities. The citizen is a representative third party who suffers harm from the financial activities of the others. The citizen has no moral responsibility but will suffer great harm and will not be discussed further in this part of the paper.

What is the moral responsibility of these archetypes in our idealised society?

[19] See Afit Mian & Amir Sufi, *House of Debt* (University of Chicago Press, 2014), pp. 95-105.
[20] Use of 'person', 'agent,' or 'actor,' in this paper refers to natural or legal persons as the context warrants.

Much of what I am about to say is tentative because it depends on empirical considerations and is therefore outside of the scope of moral philosophy. But we can draw basic conclusions.

Start with the single consumer borrower. An example might be a first time homebuyer who took out a subprime mortgage. The adverse effects of the subprime mortgage market on financial markets in the most recent financial crisis are well understood. It may be privately beneficial for the homebuyer to enter a mortgage that pushes to the limits of affordability, such as a risky subprime mortgage. It may also be necessary. The borrower may need to buy the house to get her children into a decent school because her government fails to provide equality of opportunity in education. She may need to get on the home buying ladder to leave an oppressive rental market or because her government fails to provide decent social housing. Or, she may simply want to buy better accommodation. Other alternatives are that she has poor credit because of bad choices, or is living beyond her means. Regardless of the reasons why a borrower enters into a risky mortgage, when many people enter into similarly risky mortgages, the result can be disastrous.

Let's apply Principle CH_2 to our consumer borrower. Two problems seem apparent, and they stem from the epistemic condition. First, if we understand Principle CH_2 to reflect consequentialist insights, how does an agent know if they are in the category of agents who should not take the action resulting in the imperceptible difference? Certainly there will be some level of risky mortgages that will be acceptable or even beneficial. There may be some optimal number of risky mortgages posing low risks to the financial system yet benefit poor recipients greatly. Second, how shall our individual agent weigh or compare good and bad consequences? If she is required to aggregate for bad consequences for the financial system, should she not

also be required to aggregate for good consequences? It is likely that the consumer borrower cannot meet the knew or should have known standard in Principle CH_2. There may however be a 'greedy homeowner' category if particular constitutive attitudes make a consumer borrower profligate or risk friendly. If our consumer borrower does not fall into this category a further impediment to holding her morally responsible, which comes from Principle CH_2's contractualist features, is that refraining from entering into a mortgage transaction may place disproportionate burdens on the consumer borrower's freedom of action if she is a first time home buyer trying to enter the property ladder, a parent trying to make a decent life for her family in an unjust society with inadequate social housing, and so on. The bottom line is that there will be many contexts in which the consumer borrower is not morally responsible for mass financial harm.

The lender situation is different. Here we likely have a situation in which Principle CH_2 imposes moral responsibility. The actions of lenders in many cases are likely to make a significant difference. They have likely significantly contributed to harm. Some of the more sophisticated market participants knew or should have known that their risky activities would be the cause of significant financial harm. If they were greedy or in pursuit of extraordinary profits, their particular constitutive attitudes provide the necessary element to comply with the epistemic condition in Principle CH_2, regardless of whether they knew or should have known of the risks. It is doubtful that lenders suffer disproportionate burdens if they refrain from actions that lead to systemic financial harm. With the existence of established capital markets in the form of stock exchanges, the lender's shareholders have the option to move their financial holdings to other investments to produce similar returns but which would not contribute to systemic financial risk. Moral responsibility seems clear in

many lender cases.

Consider the sophisticated market professional. Here is a stylised example. 'Financial institution' securitizes home mortgages. They use structured finance to pool loans and create securities from loan pools, rated and classified by default risk. They know that some of the mortgages they acquire were created as a result of subprime lending and that this subprime lending dramatically increases the risk of default by borrowers on loans. They know that securitization facilitates subprime lending and the benefits from it. They also know that they are not the only enterprise in the securitization business and that there is a cascading risk from creating securities from subprime loans that goes beyond the risk of default by borrowers.[21]

Principle CH_2 seems to clearly place moral responsibility on this sophisticated market professional to refrain from contributing to systemic financial risk. This financial institution contributes to systemic risk and the harm that follows and knows or should know that it is doing so. They and their shareholders plausibly have alternative investment strategies and so could reasonably refrain from contributing to this risk. That they may make less of a return on investment in these alternative investment strategies may be true, but their focus only on maximising their own gain regardless of the consequences is unreasonable and suggests a set of constitutive attitudes that would violate Principle CH_2.

What about unsophisticated market professional? Consider the following example. 'Real estate agent' works hard to assist first time homebuyers in buying houses. She is the sole wage earner for her family. She does not work on the financing side of the industry. She is aware that some of her clients enter into subprime

[21] I use the subprime mortgage example only to provide concreteness to the case study. The availability of subprime mortgages has been severely restricted since the Great Recession.

mortgages, but she is not involved in setting up these mortgages. She could try to refer her clients to more conservative mortgage brokers but her firm requires her to use a particular broker and if she violated this policy, she could lose her job. Even if she could refer her clients to other mortgage brokers, there is the possibility that this will reduce her own income substantially, and she feels that she should be able to rely on the buyer's own choices in the matter. Real estate agent is aware that the above financial institution is securitizing many of these risky loans and the risky loans of others. She thinks that one day the bubble will indeed burst.

It is unclear whether Principle CH_2 imposes moral responsibility on the real estate agent. The conduct of the Real Estate Agent likely only meets the epistemic conditions of Principle CH_2. She knows there is a problem and her discontinuing her actions might be the right result if we focus solely on a consequentialist account of imperceptible difference, but under our Principle CH_2 requiring that she act might violate the freedom relevant condition – it may place disproportionate burdens on her freedom of action. It would benefit society if she stopped working in her line of business but it may be difficult for us (society) to ask her to do so as a matter of individual choice, unless we give her other options. Here we see that institutions may be needed to solve this collective action problem.

To conclude, this first part of the paper is moral philosophy about the actions of individual agents when faced with financial decision making. Does a person have a moral duty to avoid a particular financial transaction or set of financial transactions that might contribute in some way, however slight, to harm to others who may not be parties to the transaction or set of transactions? The answer is, it depends. To get this question to be tractable, I developed a five-person idealised society comprised of citizen, consumer borrower, lender, and two different kinds of market professionals,

depending on the level of their sophistication about finance. I then evaluated the conduct of these agents using a moral principle that I worked out of the conditions in which persons might be morally responsible for their individual actions in mass or collective financial harm cases. Consumer borrowers are unlikely to have moral duties to avoid financial transactions unless they have some special knowledge of the effects of their acts on others or if they fail to meet some applicable standard of conduct, such as when they are risk friendly profligate spenders. The lender is morally responsible in most cases and will owe duties to avoid financial systemic risk in their lending activities. The market professional cases are unclear and depend primarily on the level of knowledge of the market professional and their ability to do otherwise without disproportionate burdens on their livelihood. The citizen is an innocent bystander and has no moral duties in the contexts of individual or interactional morality.

But our idealized citizen may have a role in promoting institutions to deal with the problems of collective financial harm. The analysis so far does not deal with the role of institutions. On the role of institutions, Ullman Margalit has argued that the generalisation argument is a derivative obligation imposed on individuals, with the primary obligation on the relevant community to impose these obligations on individual agents.[22] According to Ullman-Margalit, the relevant community has the primary obligation to 'see to it' that an appropriate number of community members do not do the putatively risky or harmful action in question. Obligations on agents will flow not from interactional morality, or at least not only from interactional morality, but from the authority of the community to command agents to act or refrain from acting in particular ways.

[22] Ullman-Margalit, n. 13, pp. 517-520.

2. The Distribution of Systemic Financial Risk

Societies can and do allocate financial risk in a number of ways, either by accident, design, or a combination of both. Actual policy prescriptions in banking and finance areas rely primary on concerns about macroeconomics and stability in national economies and the global economy.[23] Distributional considerations rarely enter the mix and when they do, they do so haphazardly. My aim here is to fill that gap by offering a way to morally justify the distribution of systemic financial risk. As explained below, I develop an approach relying on resource-based luck egalitarianism to allocate systemic financial risk.

In addition to morally justifiable legal principles at work in the distribution of systemic financial risk, we also want the rules to be rational and efficacious. In a wide reflective equilibrium, we should inquire about non-moral considerations, such as the economic effects of legal rules. Economics is influential in real-world institutional design and it provides tools for understanding how public policy designed around principles of political morality might actually operate in a society.

In economic terms, systemic financial risk is an externality. It contributes to other externalities in the housing market, such as foreclosure or repossession externalities.[24] Financial crises create a classic market failure problem. If firms and individuals act in their own interest when they make decisions involving financial risk, they take only their own costs and benefits into account. More accurately, they take into account only costs they personally bear and benefits they directly receive. Iwan Anabtawi and

[23] With the possible exception of the UK government, governments rarely if ever rely even on cost-benefit analysis to assess the effects of financial regulation. John C. Coates IV, 'Cost Benefit Analysis of Financial Regulation: Case Studies and Implications', *Yale Law Journal* 124 (2015), pp. 882-1345.
[24] 'Foreclosure' is US terminology whilst 'repossession is UK terminology. I rely on UK terminology in this paper.

Steven Schwarcz describes this as asymmetry in the distribution of gains and losses associated with financial decisions.[25] Financial decisions have undesirable spill-over effects, or what economists call negative externalities. Firms and individuals often do not bear the full social costs for their financial activities.

A classic example of these externalities was the effect of subprime lending in the United States and elsewhere on the global economy, leading to the Great Recession.[26] Though some disagreement amongst economists persists about the causes of the Great Recession, some consensus has emerged. The financial crisis leading to the Great Recession was in substantial part triggered by a significant weakening of underwriting standards by lenders. This process began in late 2004 and continued on into early 2007. With the demand for ever-increasing returns from investors, participants in global financial markets (originators, underwriters, asset managers, credit rating agencies and investors) became complacent about risk. When real estate prices began to fall in the United States, defaults on subprime mortgages, many with adjustable rates triggering to higher rates, became substantial. These events led to a substantial decline in consumption by households. When credit rating agencies began to downgrade securitisation products, the market began to unravel. The result was spill-overs with dramatic consequences resulting in the worst economic crises in recorded history. The spread of loss was like a contagion, spreading from a few real estate markets in California and Florida across the globe. The single participants in these global webs of transactions each privately benefited in particular transactions but the combination of their actions lead to a collapse of the global economy.

To bring egalitarianism to the discussion, let's postulate two simple and highly

[25] Iwan Anabrtawi & Steven Scharwz, 'Regulating Systemic Risk: Towards an Analytical Framework, *Notre Dame Law Review* 86 (2011), pp. 1349-1412.
[26] What follows is from The President's Working Group on Financial Markets, Policy Statement on Financial Market Developments (March 2008).

stylized cases, one called 'easy credit,' reflecting what might be conditions before a financial crisis, and 'tight credit', reflecting what might be conditions after a financial crisis, when government increases regulation, ostensibly to decrease systemic risk. These states of affairs are simply placeholders for any government policy with the effect of making home mortgages more or less affordable to borrowers. As in the prior section, assume a five-person society comprised of 'lender', 'borrower', 'market professional' and 'citizen'. The focus will be on lender, borrower and citizen, as the effects on them will be most important and effects on market professionals will be overlapping with and deriving from the effects on these primary actors. In addition the distributional implications favouring the lender over the borrower can be significant.[27]

I will go step-by-step through the problem from the standpoint of a prominent version of luck egalitarianism, known as resource-based luck egalitarianism, the main proponents of which are Ronald Dworkin and Eric Rakowski, though Dworkin did not consider himself a luck egalitarian.[28] I will use Dworkin's concept of an auction for the division of resources at the initial stages of society, his concept of hypothetical insurance to deal with inequalities, and his distinction between brute and option luck. A resource-based approach to luck egalitarianism allows us to avoid the propensity of welfare egalitarianism to compensate those who deliberately cultivate expensive tastes and even those not responsible for their expensive tastes and have so-called bad price luck.[29] In a resource-based account, we can avoid catering to people with

[27] Mian & Sufi, n. 19, pp. 19-20.
[28] Ronald Dworkin, 'Equality of Resources' in *Sovereign Virtue: The Theory and Practice of Equality* (Harvard University Press, 2000), pp. 65-119; Ronald Dworkin, 'Equality, Luck & Hierarchy', *Philosophy and Public Affairs* 31(2003), pp. 190-198; Eric Rakowski, *Equal Justice* (Oxford University Press, 1991). Of course, there are many who offer a resource-based account of egalitarianism. The emphasis here is on responsibility-sensitive accounts characterized as luck egalitarian.
[29] As set forth in Dworkin, n. 28; G.A. Cohen, 'Expensive Tastes Rides Again', in Justine Burley ed.,

expensive tastes in homes, or more generally, to people who seek substantial increases in their well-being from risky uses of credit. Government intervention is an admittedly crude instrument for managing people's tastes and preferences and we may not care so much about catering to people's expensive tastes, even if those tastes are not subject to the control of the people who have them. We are, rather, concerned about more serious effects of systemic financial risk on basic levels of need for housing and credit.[30]

Private home ownership is a resource. As Dworkin argues in the first paragraph of 'Equality of Resources', the paper said to have begun modern-day accounts of luck egalitarianism, 'equality of resources is a matter of equality in whatever resources are owned privately by individuals'.[31] Dworkin goes on to explain that private ownership 'is not a single, unique relationship between a person and a material resource, but an open-textured relationship many aspects of which must be fixed politically'.'[32] So, Dworkin concludes, 'the question of what division of resources is an equal division must to some degree include the question of what powers someone who is assigned a resource thereby gains, and that in turn must include the further question of his right to veto whatever changes in those powers might be threatened through politics'.[33] Rakowski argues similarly, assuming that the resources available for division would be held privately and limiting his argument to those resources 'that are placed in

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Dworkin and His Critics (Blackwell, 2004), pp. 3-29; Richard Arneson, 'Equality and Equal Opportunity for Welfare,' *Philosophical Studies* 56 (1989), pp. 77-93; John Roemer, *Theories of Distributive Justice* (Harvard University Press, 1996).

[30] A welfare-based proponent might respond by arguing for an objective rather than subjective measure of welfare, through the development of some sort of objective list of acceptable levels of credit or home ownership. Whilst an objective welfare account might well be amenable to development, it adds unnecessary complexity when it comes to developing actual heuristics to guide public policy, and risks of dissolving into a resource based account at the level of public policy.

[31] Dworkin, n. 28, p. 65.

[32] *Ibid.*

[33] *Ibid.*

individuals' hands.'[34] As we will discover below, when we enquire into the economic incidents of private home ownership financed by mortgage credit, we can disaggregate private ownership into a number of other resources.

Let's take a look at the private ownership rights of our archetypal agents in our simplified four-person model. We need to identify what could plausibly be identified as resources to be distributed to and from the various agents. From this position of identification of resources, we can then decide how to distribute these resources using a luck egalitarian framework. We will also need to understand the risks associated with these resource allocations and how to distribute these risks in a luck egalitarian framework, if these risks have the potential to change significant features or the values of these resources.

The typical mortgage contract allocates rights and responsibilities to lender and borrower. In the usual arrangement found in countries maintaining substantial owner-occupied residential patterns financed by credit,[35] the borrower is a homeowner, residing in the home. The borrower is the debtor in a relationship of secured credit with a financial institution serving as the creditor. The resources the borrower receives are home ownership and credit. If the mortgage has a fixed interest rate, the borrower enjoys the benefits of that fixed rate and the resulting certainty of fixed payments over the life of the mortgage. If the mortgage interest rate is adjustable, the borrower benefits from downward interest rate adjustments but bears the risk of upward adjustments. A significant expected benefit of real property ownership is that the borrower gets to keep, or effectively 'owns', the market appreciation in the value of the property, though they also bear the full risk of market declines in property values.

[34] Rakowski, n. 28, p. 66.
[35] *See* Dan Andrews & Aida Caldera Sanchez, *Drivers of Homeownership Rates in Selected OECD Countries* (OECD, 2011); Jon Palmer, 'Brits buy homes, the Germans rent – which of us has got it right?', *The Guardian,* 19 March 2011.

The lender's resources include those of the typical secured creditor, including return on investment in home loans in the form of interest on funds lent. For adjustable rate mortgages, the lender benefits from interest rate increases but these have to be offset by increased costs of funds from depositors caused by general interest rate increases in the economy. Our model has simplified matters but we could add the resource that a typical lender does not lend its own funds but the funds of its depositors if it is a deposit institution such as a commercial bank. A lending resource that a bank has is leverage. Leverage ratios are a longstanding area of bank regulation. Finally, a lender is a creditor with a fixed claim on the asset securing the debt, which means that it can repossess the house serving as the security for the mortgage in the event of the borrower's default on the mortgage.

The citizen, a simplification for a typical person outside of the borrower-lender relationship, has the potential to enjoy economic stability as a result of the mitigation of systemic financial risk. Economic stability may be seen as a public good in an economic sense.[36] The citizen also benefits from the spread of private home ownership, to the extent that it benefits the community, as the social science evidence indicated.[37]

Turning to the risks associated with the resources to be allocated, the lender has a fixed claim on the borrower and her asset during the duration of the mortgage, though some sharing of risk occurs on adjustable rate mortgages. It is fair to say that the

[36] On the public good of financial stability, see Charles Wyplosz, 'International Financial Stability', in Inge Kaul, Isabelle Grunberg & Marc A. Stern eds., *Global Public Goods: International Cooperation in the 21st Century* (United Nations Development Programme, 1999), pp. 152-189; Mads Andenas & Iris H. Y. Chiu, 'Financial Stability and Legal Integration in Financial Regulation, *European Law Review* 38 (2013), pp. 335-359. The distinction between financial and economic stability is discussed below.

[37] The literature is substantial. *See, e.g.,* Edward Glaeser & Denise DiPasquale, 'Incentives & Social Capital: Are Homeowners Better Citizens?', *Journal of Urban Economics* 45 (1999), pp. 354-384; Sidney Verba, Kay Lehman Schlozman, & Henry Brady, *Voice and Equality: Civic Volunteerism in American Politics* (Harvard University Press, 1995).

lender has a fairly fixed income stream regardless of the value of the asset or the state of the economy. A mortgage is a debt contract, and these tend to be inflexible. The borrower benefits from market appreciation of the value of the house but also bears the risk of the decline in its value. The borrower bears the risk of default, which includes repossession and ultimate loss of home, for any number of reasons, either from her own actions or from a general downturn in the economy in which the borrower is put under the stress of reduced income or loss of employment. The lender does bear some systemic risk associated with serial repossessions, as they are in the business of lending and not home sales and generally disfavour having to deal with large inventories of repossessed houses in distressed markets. The citizen suffers from the effects of systemic risk and repossession externalities, and this is so regardless of her position in the housing market. The effects of systemic risk and repossession externalities on the citizen are both specific and general. The effects on the citizen are specific in a territorial or local sense. A citizen in a local context (such as in a housing estate) in which there have been substantial numbers of repossessions will likely suffer substantial loss as their net worth and means to promote their lives and to support their families decreases. If their net worth is low or negative to begin with, the harm can be catastrophic. The effects on the citizen are general in that national and even global economic declines contribute significant harm to the citizen, particularly if the citizen is of limited economic means.

Now that we have identified the relevant resources and the risks associated with those resources, the next step is to decide how to distribute them in responsibility-sensitive ways. Assume that the initial stages of Dworkin's island auction have occurred. Once the auction meeting Dworkin's envy test has concluded, inequalities will still have to be dealt with as society progresses through subsequent market

exchanges and relationships. Dworkin developed the notion of hypothetical insurance to determine which inequalities would be justifiable.[38] The hypothetical insurance procedure is designed to be ambition sensitive but not endowment sensitive, which means that differences in people's ambitions might result in unobjectionable inequalities but that inequalities from endowments such as disabilities, native talents, or accidents of birth should be neutralised.

The hypothetical insurance model can be adapted for the situation here. For Dworkin, insurance 'provides a link between brute and option luck, because the decision to buy or reject catastrophe insurance is a calculated gamble.'[39] We do the same thing here, analogizing home mortgage defaults of the serial nature at issue here to be a catastrophe, albeit of an economic kind. The question becomes: how to neutralise bad brute luck in mortgage transactions and systemically? In a hypothetical decision making process about whether to buy insurance, which kinds of bad brute luck would it be rational for the borrower and the citizen to reject? The notion of insurance is a tempering device to get persons behind a veil of ignorance to assess what their insurance needs might rationally be in the mortgage market. We want to assess what a rational person would be willing to pay in insurance premiums *ex ante* to avoid risk in that market. In this process, we also will assess what a hypothetical insurer would be willing to underwrite. Of course, we need to take into account that our insurer is hypothetical and that in actual practice there may be no insurer willing to underwrite the risks we deal with here.

Dworkin's distinction between brute luck and option luck tells us a great deal about the distribution of systemic financial risk. The distinction between ordinary

[38] The terminology of emerging inequalities is from Alexander Brown, *Ronald Dworkin's Theory of Equality: Domestic and Global Perspectives* (Palgrave Macmillan 2009), pp. 58-63.
[39] *Ibid,* p. 59.

market risk and systemic risk aligns closely with Dworkin's distinction between option luck and brute luck. According to Dworkin, ordinary market risk is not morally arbitrary, in the sense that people who make market decisions, 'take a gamble' and are subject to option luck.[40] In this account, making a market decision is a choice. The harm associated with systemic financial risk, in contrast, seems a clear case of bad brute luck. Systemic financial risk has the potential to harm someone even if they had nothing to do with the transactions causing the harm. Exposure to systemic financial risk is an unfortunate circumstance having nothing to do with choosing but with being a participant in a market economy. In the context of the global financial crisis, a person like our citizen was out of the market entirely, without any mortgage, not involved in financial markets in any way, and yet losses cascading systemically through the financial system and the economy as a result of the actions of others caused her substantial loss of resources.

But the distinction between brute and option luck, reflecting a distinction between choice and circumstances, might not be easy to make in many cases.[41] The elusiveness of the distinction can be handled in two ways. First, as explained below hypothetical insurance rules out insuring against expensive tastes. Second and alternatively, Richard Arneson offers a solution to this problem by asking us to distinguish between choice and desert catering luck egalitarianism.[42] Choice is essential but background facts also need to be considered. Here, we may give some latitude to borrowers with particular characteristics. Principle CH_2 reflects the notion of desert. Assume two borrowers enter into identical risky mortgages they can barely

[40] Dworkin explains that 'option luck is a matter of how deliberate and calculated gambles turn out – whether someone gains or loses through accepting an isolated risk her or she should have anticipated and might have declined'. Dworkin, n. 28, p. 73.
[41] Dworkin so acknowledges. Ronald Dworkin, 'Justice, Insurance, and Luck', in Dworkin, n. 28, pp. 320-350, 324.
[42] Richard J. Arneson, 'Luck Egalitarianism Interpreted and Defended', *Philosophical Topics* 32 (2004), pp. 1-20.

afford. We might want to neutralise the bad luck of a borrower who is a first time home buyer, has been prudent with her finances, is in need of a decent home for her family with good schools, is in no position to know of the imperceptible effects of her risky mortgage on others, and may have a limited understanding of the effects of a risky mortgage on herself.[43] On the other hand, a profligate big spender with expensive tastes who pushes herself to the limits of affordability so that she can have a house she can conspicuously show off to her friends and colleagues will be less deserving of relief. We can, however, keep our account parsimonious and rely on the hypothetical insurance procedure to deal with this particular problem.

With the above established we are now in a position to assess the risks our agents want to insure and whether a prudent insurer in our hypothetical world would provide the insurance at a premium our agents would be prepared to accept.[44] Let's start with the borrower. Assume the borrower does not know her personal traits, whether she is the profligate big spender or first time home buyer, whether her actions will contribute to systemic financial risk, whether she will be adversely affected by systemic financial risk, whether she is rich or poor, or whether she has expensive tastes and bad price luck. In these hypothetical conditions, the borrower would want to insure against risk of loss of adequate housing resulting from adverse economic conditions or the terms and conditions of the mortgage contract. Adequacy of housing can be assessed relative to the society in which the borrower lives.[45] The borrower would want to insure against catastrophic loss of housing as a result of significant economic crises. The Borrower would not, however, insure to have significant

[43] *See* Brown, n. 38, p. 59 on investment luck.
[44] For a somewhat similar discussion about dangerous activities, natural disasters, business losses and business profits, See Rakowski, n. 28, pp. 79-87.
[45] It is common in egalitarian theory to measure rights and opportunities in terms relative to the society in question. *See, e.g,* Norman Daniels, *Just Health Care* (Cambridge University Press, 1985), p. 53, in which Daniels argues that health care is a social good that is necessary for societies to provide to maintain normal species functioning at an opportunity range determined by one's society.

housing wealth relative to other society members, or against extravagant tastes in housing. Very few people in a society acquire significant housing wealth or have extravagant tastes, and so the probability of a person being in these categories outside of the veil of ignorance is low. Alternatively stated, the risk of being not wealthy is very high and so the premiums to insure against it would be prohibitive.[46]

Short of outright loss of home, the borrower would likely find it problematic to bear all or a significant proportion of the risk of loss from severe declines in home values. It is plausible to believe that she would want insurance coverage similar to natural disaster insurance. If a borrower were to lose a home or if the home were significantly damaged as a result of fire or a tornado, the borrower would likely have insurance to cover such losses.[47] In fact natural disaster insurance is usually required as a condition in a mortgage contract.

Finally, the borrower behind a veil of ignorance might also find it problematic if others, such as the lender or its constituencies, such as the lender's shareholders and depositors,[48] were to benefit from her bad brute luck.[49] Our borrower would probably not want the lender to benefit from the borrower's default on a mortgage, resulting in borrower's loss of her home. In addition, such a structure of the debt contract would produce poor incentives for the lender and hold the borrower hostage to the acts of predatory lenders. The borrower would want the lender to share in the downsides the borrower faces in the housing market. In short, no good brute luck from bad brute luck.

As for the lender, there is substantial evidence that financial institutions have for

[46] *See* Rakowski, n. 28, pp. 122.
[47] Miaf & Sufi, n. 19, pp. 17-18.
[48] As the U.S. Supreme Court has stated: 'The relationship of bank and depositor is that of debtor and creditor, founded on contract.' *Bank ov Marin v. England,* 385 U.S. 99 (1966).
[49] Carl Knight, 'Benefiting from Injustice and Brute Luck', *Social Theory and Practice* 39 (2010), pp. 581-598.

many years pre- and post-Great Recession sought and obtained *de facto* insurance in the form of regulatory capture.[50] Regulatory capture occurs when a government regulator, ostensibly acting in the public interest, furthers the interests of firms being regulated rather than the beneficiaries of the regulation. Applying the regulatory capture insight to financial institutions, the argument would be that financial institutions effectively buy insurance in the form of protective regulation.[51] A possible example of regulatory capture is the 'banks are different' rationale that regulators have offered for subsidizing large banks instead of homeowners.[52] There may be sound economic reasons for protecting the payment system that banks provide for the economy, which would include deposit protection, a longstanding form of banking regulation going back to the early 20th century.[53] But in the application of egalitarian theory to financial regulation post-Great Recession, the interests of lenders and their shareholders and non-depository creditors are entirely instrumental. Financial activity is not an end in itself but an instrument for producing economic well-being in a market oriented economy. If relatively more well-being could be produced by other forms of economic organisation that do not involve financial institutions, then financial institutions would lose the justification for their existence and it would be

[50] The classic explanation of regulatory capture is in George Stigler, 'The Theory of Economic Regulation', in George Stigler ed., *Chicago Studies in Political Economy* (University of Chicago Press, 1988), pp. 209-233.

[51] A vast literature exists on regulatory capture in the financial industry. *See, e.g.,* Bank of England, 'Regulators, Financial Industry and the Problem of Regulatory Capture, in *Making Good Financial Regulation: Towards a Policy Response to Regulatory Capture* (2012); Warwick Commission on International Financial Reform: In Praise of Unlevel Playing Fields, (2009, Ch. 5; Stefano Pagliari ed., *Making Good Financial Regulation: Towards a Policy Response to Regulatory Capture* (ICFR, 2012); James Kwak, 'Cultural Capture and the Financial Crisis', in Daniel Carpenter & David A. Moss, *Preventing Regulatory Capture: Special Interest Influence and How to Limit It* (Cambridge University Press, 2014), pp. 71-98; Lawrence G. Baxter, '"Capture" in Financial Regulation: Can We Channel it Toward the Common Good?', *Cornell Journal of Law and Public Policy* 21 (2011), pp. 175-200;

[52] *Compare* Marco Becht, Patrick Bolton & Alisa Röell, 'Why Bank Governance is Different,' *Oxford Review of Economic Policy* 27 (2011), pp. 437-463; Huberto John H. Boyd & Mark Gertler, 'The Role of Large Banks in the Recent U.S. Banking Crisis', Federal Reserve Bank of Minneapolis *Quarterly Review* (1994), pp. 319–68; Huberto M. Ennis & H.S. Malek, 'Bank Risk of Failure and the Too-Big-To Fail Policy', Federal Reserve Bank of Richmond *Economic Quarterly* 91 (2005), pp. 21-43.

[53] Mufi & Sian, n. 19, pp. 119-134.

entirely appropriate to liquidate them all and prohibit their activities.[54] The point here is that we do not have to determine what sorts of insurance a lender might want or need in our hypothetical insurance market. At least in egalitarian theory as it is applied here, their interests are subordinate to those of others.

The citizen is interested in the public good of economic stability and, if we accept the principal tenets of egalitarian theory, some form of distributive justice in the allocation of resources essential for pursuing one's life projects.[55] The citizen is an archetype for the average person in a society or the average member of a social contract. Whilst much has been written about distributive justice, the public good of economic stability needs justification. The notion of a public good is from economics. A public good has two essential features: it is non-excludable and non-rivalrous, which means that persons cannot be effectively excluded from use of the good and use by one person does not reduce the availability of the good to others.[56] To insure that the public good of economic stability continues unabated, systemic financial risk and repossession externalities, which we can classify as public bads, need to be mitigated or eliminated. The citizen would want to insure against these public bads. To do this, we would want to monetize the relevant externalities to the extent feasible. The idea would be to give our citizen a right to stability in her economic affairs. The right then could then become a resource to be insured (or traded). Our archetypal

[54] Shareholders can invest in other companies. A basic tenet of the efficient capital markets hypothesis in finance is that shareholders do not invest in firms because they 'like' a firm. Buying stock is not like buying shoes. Shareholders buy stock because of the particular risk and rate of return for the particular asset class that the stock happens to fall within. If an investment in a bank is no longer profitable compared to other investments, a rational shareholder will sell her bank shares and buy shares in the relatively more profitable investment. Hence the phrase, 'seen one stock seen em all.' The efficient capital markets hypothesis has come under some attack in the finance literature but its basic tenets remain true. *See* Eugene F. Fama, 'Random Walks in Stock Market Prices', *Financial Analysts Journal,* Sept./Oct. 1965; Richard A. Beasley & Stewart C. Myers, *Principles of Corporate Finance* (McGraw Hill, 2013).

[55] The citizen does not care about financial stability *per se*. Financial stability is simply a route to economic stability.

[56] Richard Cornes & Todd Sandler, *The Theory of Externalities, Public Goods, and Club Goods* (Cambridge University Press, 1996).

lender could be required to compensate the citizen for the risk of economic instability. The compensation could be hypothetical in the sense that the lender could be regulated in such a way that alters the distribution of burdens and benefits on lender and citizen, as well as on the borrower and others. We know that in actual capital markets, excessive volatility in asset prices is not actually priced into the market and not something that can be covered by actual insurance.[57] But in our hypothetical insurance market, a rational citizen behind the veil of ignorance would likely want to insure economic stability but minimize restrictions on borrowing by deserving borrowers in need of adequate housing. The citizen would want decent levels of adequate housing to be covered because the citizen does not know her position in the housing market and would want to insure a basic minimum for herself. Minimally adequate housing is a resource that is essential for a decent life. As well, the citizen would want others to have adequate housing, given the substantial benefits to society of people living stable lives in homes they own. The citizen would likely insure its right to stability to the point of reasonable economic prosperity and to avoid severe economic declines and volatility in the housing market. It would likely insure to reduce the risks of the public bads to some reasonably acceptable level, subject to the proviso that no vulnerable group would bear disproportionate burdens.

The final step is to transform the results of the hypothetical insurance process into government policy. Recall Dworkin's point that rights to resources are 'fixed politically'.[58] As explained above, the borrower would insure against loss of adequate housing, risky crisis-prone economic conditions, disproportionate risk bearing on its mortgage, and undeserved benefits to others from its bad brute luck in home ownership. The citizen would look to minimize the public bads of economic

[57] Wyplosz, n. 33, p. 157.
[58] Dworkin, n. 28, p. 65.

instability from severe decline in home values and other economic shocks.

Any number of policy recommendations could flow from these results, but one overriding result seems to be that borrowers and other vulnerable groups should not bear disproportionate burdens when policies are designed to mitigate or eliminate systemic financial risk and the externalities of economic crises. I call this the *priority of risk assignment* principle. It can be stated in shorthand as follows:

> Law and public policy to prevent or mitigate the effects of economic crises, when those crises relate to volatility in the financial system, should be designed to avoid imposing unreasonable burdens on persons who, as a result of bad brute luck, have not acted in ways to deserve the imposition of those burdens upon them.

It is doubtful that governments have applied something like a priority of risk assignment principle when devising law and policy to mitigate or eliminate the risks under consideration here. Policies developed in early efforts to stabilise economies were morally problematic at best.[59] They included massive subsidizing of banks that were considered 'too big to fail' and little if any relief for borrowers. In fact many borrowers were made worse off because of the severe tightening of credit for borrowers least able to afford mortgages.[60] This is a policy of reverse-prioritarianism, based on a priority for the *better* off.

Policies that came later are not much better. As an example, consider the UK's Mortgage Market Review (MMR), which imposed obligations on lenders to assess the

[59] This is *not* sound economic policy, though it is the one that was selected by the U.S. government and other governments. *See* Mian & Sufi, n. 19, 119-134.

[60] *See* Emilios Avgouleas, *Governance of Global Financial Markets: The Law, the Economics, the Politics* (Cambridge University Press, 2012); Kathleen Kahle & Rene M. Stulz, 'Access to Capital, Investment, and the Financial Crisis', *Journal of Financial Economics* 110 (2010), pp. 280-299; Atif Mian, Amir Sufi, & Francesco Trebbi, 'The Political Economy of the U.S. Mortgage Default Crisis', *American Economic Review* 100 (2010), pp. 67-98; Pietro Veronesi & Luigi Zingales, 'Paulson's Gift', *Journal of Financial Economics* 97 (2010), pp. 339-368; Stephen G. Checchetti, 'Crisis and Responses: The Federal Reserve in the Early Stages of the Financial Crisis', *Journal of Economic Perspectives* 23 (2009), pp. 51-75.

affordability of mortgages as a condition for mortgage approval.[61] The US Dodd Frank Act imposes similar 'ability to pay' obligations.[62] Imposing affordability requirements may reduce repossession externalities but at a substantial cost to a fair distribution of risk. The lenders will simply pass on the costs of prevention embedded in the affordability requirement to borrowers. Banks will do this by increasing rates of interest to compensate for risk, their traditional method for dealing with increased borrower risk, though they may not need to resort to this with strict affordability requirements. It is unlikely that they would go so far as to use the risky mortgage terms and conditions found in subprime mortgaging, such as balloon payments, or even interest only mortgages on an extensive basis, as these methods (quite rightly) are now very tightly restricted. Regrettably, they will reduce their costs by reducing the pool of potential borrowers. The costs they are limiting are the costs of lending in the form of risk of liability for lending to those unable to afford mortgages. The affordability requirements attempt to internalise the costs of the public bads onto banks, but banks will simply shift these costs onto consumers least able to afford loans and in need of such loans in many cases. Our deserving first time, young families, and lower income homebuyers will be unable to enter the housing market. With the decline in home ownership comes reduction in the benefits of home ownership to communities and the elimination of largest single source of wealth for individuals in societies with significant private home ownership.[63] The affordability

[61] Mortgage Market Review (Conduct of Business) Instrument 2012, 27 Sept. 2012; Mortgage Market Review Feedback on CP11/31 and final rules (0ct. 2012). The Financial Conduct Authority is preparing to implement the EU Mortgage Credit Directive, 2014/17/EU, 4 Feb. 2014.
[62] John Pottow, 'Ability to Pay', *Berkeley Business Law Journal* 8 (2011), pp. 175-208.
[63] Karl E. Case, John M. Quigley, & Robert J. Shiller Jr., 'Comparing Wealth Effects: The Stock Market versus the Housing Market', *Advances in Macroeconomics* 5 (2005). Compare Charles Calomiris, Stanley D. Longhofer & William Miles, 'The (Mythical?) Housing Wealth Effect', NBER Working Paper No. 15075, June 2009. The relationship of housing and wealth to inequality is substantial. Research in the UK tends to focus on geographical and intergenerational inequality between regions. The Mortgage Market Review Equality Impact Assessment states tbat 'no concerns were identified' for racial equality. Mortgage Market Review, Feedback on CP11/31 and final rules

rules have only recently been promulgated and empirical studies will soon be needed to assess impact. Bank balance sheets should however improve, with fewer but higher quality mortgage loans on the books.

Affordability policies by themselves are problematic but they may be coupled with other policies to decrease burdens on vulnerable populations. Governments could, for example, combine affordability requirements with assistance to particular groups of persons who have traditionally experienced difficulties in meeting affordability requirements, such as first time homebuyers. The UK government has, for example, put in place a 'Help to Buy' loan scheme to provide £9.7 billion to help eligible applicants into home ownership, as well as subsidies to the construction sector.[64] It is too early to assess the effectiveness of these schemes. Critics argue that help to buy programmes cause the very risk they try to alleviate, in particular systemic risk flowing from upward volatility in house prices, or so-called housing bubbles. These concerns are likely to be exaggerated because help to buy does not exist in isolation but is combined with restrictions on mortgage lending such as affordability requirements and with subsidies to the construction sector to build new homes. They also account for a fraction of the housing market. It is beyond egalitarian theory, however, to critically assess these economic effects.

A way around these criticisms would be to fundamentally alter the terms of the mortgage contract. A mortgage is debt and with debt comes an inflexible set of fixed claims of creditors on debtors. Debt is conceptually oppositional to insurance at its root. Atif Mian and Amir Sufi argue that 'debt is the anti-insurance. Instead of helping to share the risks associated with home ownership, it concentrates the risks on those

(Oct. 2012, at A5:5. Substantial US research shows a link between housing and wealth inequality and race and ethnicity. *See e.g.,* Lauren J. Krivo & Robert L. Kaufman, 'The Relationship of Housing and Wealth Inequality to Race and Ethnicity, *Demography* 41 (2004), pp. 585-608.

[64] http://www.helptobuy.org.uk

least able to afford it'.[65] By this they refer to what happens when house prices experience a steep decline in an economic crisis. As explained above, the mortgage contract places all risk of housing value declines on the borrower, the person usually most deserving of help and least deserving of shouldering all of this risk. As Mian and Sufi explain:

> When house prices in the aggregate collapse by 20 percent, the losses are concentrated on the borrowers in the economy. Given that borrowers already had low net worth before the crash (which is why they needed to borrow), the concentration of losses on them devastates their financial condition. They already had very little net worth – now they have even less.[66]

The situation they describe differs fundamentally from the way that insurance operates. In an insurance context, the losses would be 'covered' in the sense that the insurance would compensate the borrower for the loss. In the hypothetical insurance market worked out above, the borrower would want to be insured against the catastrophic loss associated with the loss of her home as a result of an economic crisis.

In contrast to the loss that the borrower incurs in the face of steep declines in housing values, the lender suffers significantly less. As Mian and Sufi explain, using the concept of 'savers' to represent the claims underlying those of the Lender:

> In contrast [to the substantial losses borrowers incur in a collapse of housing prices], the savers, who typically have a lot of financial assets and little mortgage debt, experience a much less severe decline in their net worth when house prices fall. This is because they ultimately own – through their deposits, bonds, and equity holdings – the senior claims on houses in the economy.[67]

Mian and Sufi advocate a 'shared responsibility mortgage' or SRM, a hybrid concept with features of both debt and equity.[68] While the UK mortgage market is

[65] Mian & Sufi, n. 19, p. 30.
[66] *Ibid.,* p. 19.
[67] *Ibid.*
[68] *Ibid.,* pp. 171-174.

overwhelmingly in adjustable rate mortgages, which soften the blow to borrowers in economic declines, because interest rates decline as well in such periods, an SRM goes further. An SRM would be linked to a local house price index. If house prices rise or remain the same as when the mortgage was entered, the monthly mortgage payment stays the same as does the mortgage amortization schedule. If the house price index falls below the level it was when the borrower entered into the mortgage, the monthly mortgage payment reduces but the mortgage amortization schedule remains the same. This results in an automatic but temporary reduction of the mortgage principal. It is temporary because house prices tend to increase the longer the time period in which they are considered. So, when the local house price index increases, the mortgage payment and principal will revert to its initial state. To eliminate or reduce the possibility that the lender will increase mortgage interest rates to compensate for its risk in sharing the downside potential of the housing market, the SRM could give the lender, say, a five percent share of the capital gain when the home is sold or refinanced.

The SRM is just one policy proposal that seems to comply with the luck egalitarian requirements set forth in the priority of risk assignment principle. Others are possible. It is beyond our scope here to exhaustively identify these options, but rather to elucidate why such options are necessary to achieve just results in the markets for mortgage credit.

Conclusion

This paper deals with one of the most complex areas of human interaction. What makes systemic financial risk even more difficult to take on in philosophy is that the workings of financial markets tend to be fully understood only by a relatively small number of specialists in economics, finance, and law. Financial markets are, however,

totally of our doing. We create them. Our social practices and our actions determine who gets what, who loses, and who gains. I have made what I consider to be an early first step in seeking to understand how persons should act when they are part of large groups of people making financial choices beneficial to each of them individually but substantially harmful to many others. In addition, we want to know how to distribute the systemic financial risk associated with these individual actions. To date, the overwhelming focus of inquiry has been in economics and finance, disciplines that have not traditionally focused on egalitarian concerns. I have attempted to steer this debate towards a discussion of the distributive implications of law and policy, looking to luck egalitarian theory to provide some tentative answers, with a focus on the paradigmatic transaction, that of buying a home with a mortgage that many individuals, often vulnerable, have to deal with if they are to pursue their life projects. Luck egalitarianism, I contend, offers substantial promise in helping societies reach consensus on how to allocate the burdens and benefits of financial regulation designed to mitigate or eliminate systemic financial risk.