The Distinctive Significance of Systemic Risk¹

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Many of the great moral problems of our time—including the scourge of financial crises and the specter of global climate change—are problems of systemic risk. That is to say, what is morally problematic is not the risk-taking of any particular agent, but rather risks of harm created by large numbers of people acting together, in perhaps unwittingly coordinated ways. Most people are at risk of suffering injury from further financial crises, by losing a job or home, or having their savings eroded and income prospects reduced. And our warming global climate presents profound risks of displacement, disease, or death, due to intensifying natural disasters, rising sea levels, weather volatility, resource wars, and so on. Both sets of risks arise from a vast assortment of personal choices, made within a larger economic system. And yet, important as these risks are, there is, strictly speaking, little if anything any one of us can do, by way of changing our personal behavior, to significantly reduce the chances that some people or other, perhaps as yet unknown, will suffer injury as a result of our joint conduct.

¹ For comments or relevant discussion, I am grateful to Barbara Fried, Marco Meyer, Matthias Risse, George Pavlakos, T. M. Scanlon, Alex Sarch, Dov Waisman, Daniel Waxman and audiences at a University of Antwerp GLOTHRO conference, Bayreuth University, and the University of Houston.

In this discussion, I suggest that the systematic imposition of risk has a distinctive kind of moral significance, which should be understood on its own terms and distinguished from other moral concerns. In particular, it has *intrinsic* significance of a kind that renders risky social systems more difficult to justify than is often assumed.

Three Questions

By way of terminology, let us say that a risk of harm is *created* when an agent acts in some way that raises the likelihood that someone will suffer significant, non-trivial material injury, as judged ex ante, in a specified epistemic situation, before any harm is actually done.² If the agent were to act differently, the probability of harm would be significantly lower. A risk of harm is created *systematically* when, and only when: (1) a group of agents act in a de facto coordinated way (e.g., in a style of capitalism, or sub-system thereof, such as financial markets); (2) in virtue of being so coordinated, the agents' actions, taken together, suffice to significantly raise the chances that someone or other will suffer serious material injury; and yet (3) no single act or single agent's actions, taken separately, significantly changes the probably that harm will occur. If any one of us opts out, the probability of injury will not be lower; the risks in question will be created by the system all the same.

² For present purposes, by "risk," I include both risk in the narrow sense, which admits of calculable probabilities, and uncertainty, or "fundamental uncertainty," which does not, except perhaps in very rough order-of-magnitude estimates. I generally have in mind "subjective" rather than "frequentist" interpretation of probability, but leave the matter open. I mainly have in mind "individual risk," or risk for a type of individual, rather than "population risk," in a merely statistical sense, but don't mean to foreclose important complications that arise from the different notions. I also set aside "non-identity problem" worries about how a person could be harmed by a policy that chances who comes into existence. I hope to return to these delicate issues elsewhere.

This characterization makes no essential reference to *instability*, or a propensity of a system to collapse rather than last. In many cases a system does harm because it is unstable, as when sudden collapse in investor "confidence" and dramatic re-valuation of asset values upends the real economy.³ But a system can also unravel with little risk of harm to anyone, because people can easily adapt. Alternatively, a system might be dangerous in relative stability. The short-run *stability* of our current reliance on relatively cheap fossil fuels is, for example, a major reason that the creation of long-term risks of harm, to generations or even centuries of future people, proceeds apace.

If systemic risk of harm is plainly of moral importance, how or in what way it is important depends on how we answer at least three further questions—of applicability, significance, and administration.

The first question, of *applicability*, is about whether or in what way moral assessment applies. When a man swerves through three lanes of traffic while driving, or builds a fusion reactor in his garage, we attribute both causal and moral responsibility to him for the risks he creates, in part because we take him to be in a position to significantly reduce or eliminate the chances of harm by acting differently. But if, in systemic risk cases, there is little any one of us can do, by way of changing our personal behavior, to significantly reduce the chances that some

³ My focus on risk of harm is consistent with a finance-centered IMF definition of "systemic risk" as "a risk of disruption to financial services that is caused by an impairment of all or parts of the financial system and that has the potential to cause *serious negative consequences* for the real economy". International Monetary Fund (2009), "Global financial stability report, responding to the financial crisis and measuring systemic risks," (emphasis added), at http://www.imf.org/external/pubs/ft/gfsr/2009/01/index.htm

people or other will suffer injury from the impersonal pattern of conduct, the question arises of how, if at all, we might be responsible for this.

A second question, of *significance*, is about the way systemic risk might matter morally. Does it matter *simply* insofar as it tends to have bad outcomes? Or can the mere fact that *people are subjected to serious risks* be grounds for moral objection in itself, whether or not actual harm ensues?

A third question, of *administration*, is about how, given the way risk imposition might or might not provide grounds for moral objection, public choice should take risks into account, especially in view of the variety of complicating considerations that arise in most law or policy decisions. How much weight should be given to potential but uncertain harms given the potentially great opportunity costs of more cautious regulation? Should we simply aggregate expected benefits and costs? Or is some form of "precautionary principle" appropriate, ever, or in certain key cases?

Collective Due Care

In addressing these questions, I will work within a contractualist moral theory, but without trying to offer, let alone defend, a general theory of risk imposition.⁴ My modest objective is to offer an independently attractive account of two intuitive data points, which any such account should explain (or explain away).

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On the topic of risk, general challenges for contractualism and other nonconsequentialist views have been posed in by Elizabeth Ashford, "The Demandingness of Scanlon's Contractualism," *Ethics* 113 (January 2003), pp. 273-302, and Barbara Fried, "Can Contractualism Save Us from Aggregation," *Journal of Ethics* Vol. 16, No. 1, pp. 39-66, March 2012, "The Limits of a Nonconsequentialist Approach to Torts," Legal Theory, 18, issue 3: 231-262 (2012) and "Is There a Coherent Alternative to a Cost/Benefit Calculus

To consider the first intuitive datum, imagine a society that, for the sake of benefits to a relative few, subjects people to serious risks on an ongoing basis, say, risks of repeated crises (whether financial, ecological, or both). Suppose that, as luck would have it, few if any crises ensue. Even so, intuitively speaking, it seems that people can be treated unjustly simply because they are asked to live in the sort of society in which they are exposed to severe and persistent risks of death or significant hardship. They can be wronged simply for being subject to risk, even when no actual harm comes to them.

The second intuitive datum concerns agents within a system. Even if a system creates objectionable risks in the foregoing way, it seems that each agent and action within the system might nevertheless be morally "innocent," in some appropriate sense. The institution of slavery is illegitimate in its very purpose, and anyone who holds slaves is arguably doing wrong, even when society is making a practice of it. But many risky systems do have a legitimate general purpose (e.g., rising living standards), and although financial and ecological crises often result in part from personal misbehavior, it seems possible in principle that all involved could permissibly continue with business-as-usual, as long as enough others are doing the usual business, and that no one *in particular* is to blame for the objectionable risks the system creates.

I should emphasize that this not necessarily the "innocence" claimed when a major crisis is counted as the fateful "forty year flood," or a "black swan event," which we can do little about, and so have no responsibility to avoid. In fact, we may

for Regulating Risky Conduct?", unpublished ms.. I address these challenges in Aaron James, "Contractualism's (Not So) Slippery Slope" Legal Theory volume 18, issue 03 (2012), pp. 263-292.

assume, even the largest crises are typically "white swan events" that we can expect and prepare for, in which case it is culpably negligent to simply leave their occurrence to fate. But to the extent such collective action problems are open to public regulation, it is tempting single out salient culpable individuals (perhaps certain influential officials or countries), or assume that there must be someone, somewhere in the system, who made the crucial, awful regulatory decisions or omissions. Yet this is often a stretch, or at least not an inevitable truth. Upon close inspection, for any such target, the person in question will often be able to point to the limits of his or her (personal or official) powers. Perhaps he or she should have done more in some small way, but the regulatory failure itself can't be laid at his or her doorstep.⁵

My main suggestion is that we account for these two initial data points at the intersection of two general kinds of responsibilities. When the systematic imposition of risk is morally objectionable, I suggest, it falls short of both:

(i) collective responsibilities, for the governance of a legal or informal social practice, wherein no one persons' participation may be wrongful, taken by itself; and

Andrew Haldane, a forceful critic of lax financial market regulation, says as much in explaining the recent banking crisis. He points to two intellectual "viruses" in the economics profession: "The first was the emergence of micro-founded...models in economics... built on real-business-cycle foundations...[in which] financial factors (asset prices, money and credit) played distinctly second fiddle The second was an accompanying neglect for aggregate money and credit conditions...with little role for commercial banks' balance sheets...[or for direct]...regulation of financial firms..... [The resulting] balance sheet explosion was, in one sense, *no one's fault and no one's responsibility*. Not monetary policy authorities, whose focus was now inflation...[a]nd not financial regulators, whose focus was on the strength of individual financial institutions." "What have the economists ever done for us?" italics added, http://www.voxeu.org/article/what-have-economists-ever-done-us

(ii) ex ante responsibilities of due care, of a general kind that may also apply to interpersonal conduct (albeit perhaps with very different content in personal institutional settings).

Neither class of responsibility exhausts the other. A collective could fail to govern its social practice justly—failing (i)—for reasons other than the risks of harm it imposes, e.g., because it discriminates arbitrarily—i.e., without failing (ii). And a person can wrongfully impose risks upon another person (e.g., I play Russian roulette with your head)—failing (ii)—whether or not anyone makes a practice of it, at least other things being equal. My claim is that we can nevertheless locate the morality of systemic risk at the intersection of the two responsibility types, in the sub-class of responsibilities that might be called *collective due care*.

My task in the remainder of this discussion is to develop this sub-class in a way that answers the questions of applicability and significance. I will also touch upon the question of administration. If people can reasonably complain of their bare subjection to risk, I will suggest, this provides special grounds for a kind of "precautionary" attitude in public choice, as against purely aggregative cost-benefit reasoning.

Collective Responsibility, Individual Innocence

⁶ I discuss financial crises and a principle of "collective due care" in ch. 8 of Aaron James, *Fairness in Practice: A Social Contract for a Global Economy* (New York: Oxford University Press, 2012), but without offering a substantial theoretical justification that attends to special problems of risk creation. I discuss special problems of risk creation in "Contractualism's (Not So) Slippery Slope," but without focusing on what is distinctive in the issue of systemic risk.

I will be relatively brief about our second datum, since it raises questions that are relatively familiar in political philosophy. As long as the risks being created by a social system are open to regulation through *collective* governance, the limitations of any particular agent's powers of action do not necessarily undercut the assignment of moral responsibility. It can simply be assigned in two stages: first non-distributively to the group of agents taken collectively (e.g., to dance partners, teams, corporations, political communities, or international associations);⁷ and then secondarily in assignments to particular agents in the collective, depending on their respective relations to the group (given their different circumstances, informational positions, costs of action, and so on). All involved together share blame, but any further culpability, for any particular member, is a separate question.⁸

The application to systemic risk is not entirely straightforward. The two-stage attribution is most plausible when all share culpability but some are more to blame than others—when the two levels of assignment allow us to place blame differentially. In financial markets, some may well bear special responsibility (e.g., because a sudden sell-off would trigger a market cascade, because a trendsetter can shape risk-taking practice, or because a government official or agency has special powers to regulate risk-taking generally but neglects to use them). But our second intuitive data point is precisely the idea that we may not be able to locate blame in any such particularized ways. And how, we may wonder, is collective responsibility

⁷ This is most plausible when a group has established modes of collective governance, in which case a mere random collection of individuals might not count as collectively responsible (*pace*, Virginia Held, "Can a Random Collection of Individuals Be Held Morally Responsible," *Journal of Philosophy*, 67 (1970): 471-81). Emergent systemic risks might then yield a genuine "black swan" crisis event.

⁸ Many accounts of collective responsibility have this two-level structure. A recent example and systematic treatment, which includes discussion of similar proposals, is Christian List and Philip Pettit, *Group Agency* (Oxford: Oxford University Press, 2011).

supposed to be assigned to a group if no one in particular is to blame? If no one is to blame, can everyone be?

Here we can distinguish two issues. The first is whether it is justifiable for an agent to continue to participate in a social system (perhaps on some qualified basis), given his or her evidence about what others are doing and the costs opting out. The second is whether those who do continue to participate live up to their responsibility to collectively govern the system's structure according to appropriate demands of justice. Each can be innocent on the first score for staying put in an objectionably risky market system, perhaps despite a firm moral preference for a better equilibrium. And yet all, taken together, can be to blame on the second score, for together failing their obligations of shared governance.

This is to assume an appropriate conception of political obligation. The essential commitment will not just be that each involved in the common association (where the sort of "association" and being "involved" is appropriately characterized) count as obliged to follow certain basic rules of conduct. They'll also have to participate in the task of governing them, in whatever formal or informal ways the association in question affords. For, we might say, when people (or nations) are sufficiently well-organized, being united by some rough sense of social expectations, for the sake of sufficiently important and generally understood purposes, then, at least absent special justification, they owe it others not to simply go with the flow;

⁹ Plausible examples other than particular governments include the many "common pool resource" management schemes documented by Nobel Laureate economist Elinore Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action* (Cambridge University Press, 1990). Within certain design parameters, and without centralized regulation, informal social practices often successfully assign use-rights that preserve a common resource. Such schemes can be of small, medium, or large scale, and relate persons, groups, or states (the successful Montreal Protocol, aimed at reducing ozone depletion, being an international case in point).

others can reasonably expect them to do their part in the task of governing what rules of conduct prevail, according to the presumed ends. They could do that, without anything as formal as a legislature, in the way they choose to interpret and engage the common practice, its terms of participation, and other participants. Instead of woodenly following received custom and convention, they participate on the basis of an active, good faith re-interpretation of going rules, in view of a constructive sense of its understood purposes, while standing ready to explain and defend their proposed approach, to be held accountable to the better arguments. and to hold others accountable under rules as they both are and might be. 10 With the standing afforded by participation, they might stage arguments for change (e.g., among friends, at a rally, at the ballot box, in various media, or in official roles, domestic or international), while perhaps changing their own behavior accordingly. So even if certain vanguard actions (e.g., having negative total lifetime emissions, through purchase of carbon offsets) won't otherwise be obligatory until a critical mass of others do likewise, it might be a matter of political obligation to do precisely that in order to show good faith in larger reform efforts.

So when enough people are in various ways failing their political obligations, they might be collectively responsible for an unjustifiable imposition of risk. But such collective political culpability is consistent with continued participation being beyond reasonable complaint. Even in an objectionably risky system, it seems plausible to say that any given act might have been performed under the same

¹⁰ For the important example of international administrative rulemaking, in the absence of a global sovereign, which might equally apply to international financial or emissions rules, see, e.g., Joshua Cohen and Charles Sabel, "Global Democracy?" NYU *Journal of International Law and Politics* 37 (4), 2005: 763-797.

salient description (e.g., "hedging with risky assets," "driving a consumptive car," "flying on a consumptive airplane") under a more justifiable, less risky version. And even when it is plain to all that something is very wrong at a systemic level, there are various reasons why one could reasonably not simply opt. Perhaps no given agent can know very well what the risks of harm are (even careful bankers can suddenly find themselves in a bank run). Or maybe a system's risks are known, but it is very costly for any one agent to unilaterally forgo participation, without evidence of a general change in behavior. The sacrifice may be personally costly, or simply pointless, because the same serious risks will be created by the system anyway. Indeed, even the perfectly altruistic, who would gladly bear almost any costs to themselves, might not opt out because of expected moral opportunity costs. You can conscientiously forgo potential returns in financial markets, or spend your resources to cut your carbon emissions to zero (e.g. by buying offsets), but then you won't be giving as much, say, to direct poverty relief.

This, I suggest, is the best explanation of our second intuitive data point.

Continued cooperation can have "innocence" borne of uncertainty, in much the same way failing to cooperate at all can. Consider, for instance, a "tragedy of the commons" due to over-use of a vital common resource. Such situations are often analyzed as the result of self-interested optimizing behavior, which entails a non-cooperative equilibrium (as in prisoner's dilemma variations). But the tragedy can arise among morally cautious resource consumers, for simple lack of evidence about the aggregated consequences of the consumption of others. Perhaps each would happily comply with appropriate limits on personal consumption, *if* they could

somehow be publically established. But when expectations aren't established, and no one is in a position to know that his or her use amounts to *over*-appropriation, given the total consumption of all users, a vital common resource might be quite innocently exhausted, even this tragically brings death to everyone. The impersonal pattern of over-consumption is tragic but not *wrongful* in any sense that implies liability to criticism for people have conducted themselves. To any such criticism, each could aptly reply, "Terrible, yes; but how was I supposed to know?" 11

Where cooperation is possible, the assurance game or "stag hunt" nicely captures this epistemic dimension of many collective action problems. The agents fail to move from a non-cooperative equilibrium to a better, cooperative equilibrium simply for lack of evidence about what others are doing and the risks of going it alone. But morally motivated agents can do that as well. As suggested, because opting out of objectionably risky systems will usually come at an opportunity cost to other morally important goals, unless or until one knows well enough that other people are also moving to the preferable, less risky equilibrium, one could rightly go with the flow in current business-as-usual, even if it is, as a system, unacceptable.

At the same time, to the extent there is a political choice to be made in what equilibrium holds, each also has obligations to take political action, e.g., if only by declaring his or her readiness to move to the better arrangements, taking vanguard

¹¹ To generalize the point, as long as (1) moral principles are essentially for self-governance (and so subject to justification according what addressed agents can do, what they can know, and the expected outcomes of their actions, etc.), and (2) the agents in question are not all-knowing and omnipotent, but limited in their epistemic and other agential powers, then it is possible, in principle, for such agents to suffer terrible outcomes in which no one is morally at fault.

¹² This is not true of one-off prisoner's dilemma readings, in which the only available equilibrium is non-cooperative, and the players fail to cooperate by definition rather than for lack of information.

¹³ I more fully develop this point in light of assurance problems in ch. 4 of *Fairness in Practice*.

action in good faith, and fully cooperating when enough others have done so as well. When enough people (or their representatives) don't do their parts in the task of shared governance, they are collectively responsible for the failing. And yet, because participation in either the good or the bad equilibrium is justifiable, there is no one *in particular* to blame for the shared failure of governance. Many might be to blame for personally failing their political obligations. But if success in managing a system's risks could only have been a shared political project, then it remains true, in a sense, that no one in particular is blame, taken alone, when the group fails to take due care.

No Harm, No Foul?

When risky systems are morally objectionable, it is natural to suppose that this is true simply in virtue of the enormous harm they do when financial or ecological crises erupt, because of their painful costs and protracted aftermaths. Indeed, according to a strict consequentialist, a system *must* have such adverse outcomes if wrong is to have been done.¹⁴

This is inconsistent with our first intuitive datum. Instead of revising the intuition, I submit that we should regard consequentialism as too limiting. When a society does subject people to severe risks of crisis after crisis, and the risks could be significantly reduced, at a small or moderate cost to anyone (perhaps the cost is

¹⁴ Although, on one version of consequentialism, evidence may determine blame: agents can be blameworthy for failing to promote the *expected* good, whatever in fact comes about, even if bad outcomes are needed for a real wrong to have been done. The question is then whether wrongful action can be plausibly separated from apt blame and criticism. J. S. Mill may be read this way, as suggested by Brad Hooker, "Right, Wrong, and Rule-Consequentialism," ed. Henry R. West, *The Blackwell Guide to Mill's Utilitarianism* (Wiley-Blackwell, 2006).

distributed across a large number of people), no further detail about the situation seems necessary for us to conclude that such a social order would not be completely just, at least other things being equal. We do not need to wait and see whether the severe risks materialize into real harm, or even assume they will at some point. If I drive drunk nightly, but, so far, by chance, no one has been hurt, I'm doing wrong already; we don't have to wait and see whether harm is or will be done eventually. And if no one is ever injured, simply by good fortune, I will still count as culpably negligent. Likewise, if fortune smiles and no crisis or catastrophe materializes, the imagined society still would not be perfectly just, as long as the favorable outcome is due simply or mainly to fortune.¹⁵

This isn't necessarily to deny societal "moral luck." When two drivers are equally reckless, and only one happens to kill a pedestrian, perhaps the lucky driver is less to blame than the driver who in fact killed an elderly lady. Likewise, even if a society took (or failed to take) exactly the same precautions in either of two situations, it may be less blameworthy in a first world in which a crisis is accidentally avoided than it would be in a second world in which, equally by accident, disaster ensued. Mere luck might thus shape what falls in the society's moral account, by shaping its *degree* of culpability. But this does not entail—what would seem plainly wrong—that perfectly good luck in averting crises after crisis would free a society from culpability completely. The drunk driver won't be off the

¹⁵ For discussion of how outcomes do not settle moral relations of "mutual recognition," see Aaron James, "The Significance of Distribution," *Reasons and Recognition: Essays in Honor of T. M. Scanlon* (New York: Oxford University Press, 2011).

hook completely as long as no one is ever killed, and a society can mistreat people just in virtue of the dangerous conditions under which it asks them to live.

Being Subject To Risk

If consequentialism is too limiting, it is natural to look to a contractualist conception of morality, which is often billed as an alternative. Yet contractualism does not unambiguously explain how there could be *distinctive* injustice in the imposition of risk. On some versions, such as Derek Parfit's, or, in some moments, T. M. Scanlon's as well, ¹⁶ we are to settle what is morally right or wrong in terms of what people could reasonably accept or reject, but while *limiting grounds for complaint to realized outcomes*, assessed ex post. ¹⁷ Mere subjection to risk is not a relevant basis for complaint, taken by itself. But this seems too confining. Any such

¹⁶ This is at least strongly suggested in T. M. Scanlon, "Contractualism and Utilitarianism," in *Utilitarianism and Beyond*, eds. Bernard Williams and Amartya Sen (Cambridge: Cambridge University Press, 1982), p. 122-3, and *What We Owe To Each Other* (Cambridge: Harvard University Press, 1998), pp. 208-9. See also Parfit's contractualism in *On What Matters*, Vol. 1, p. 162, and "Justifiability to Each Person" (Ratio XVI): 368-90. For discussion, see Aaron James, "Contractualism's (Not So) Slippery Slope." There I defend "ex ante contractualism," but here only assume a "hybrid" version that admits both ex ante and ex post grounds for reasonable complaint.

¹⁷ For relevant discussions of contractualism, see also Sophia Reibetanz, "Contractualism and Aggregation," Ethics 108, 2 (January 1998), pp. 296-311; Gregory C. Keating, "Irreparable Injury and Extraordinary Precaution: the Safety and Feasibility Norms in American Accident Law," Theoretical Inquiries in Law, vol. 4, no. 1 (2003), "Pressing Precaution Beyond the Point of Cost-Justification," Vanderbilt Law Review vol. 56, no. 3 (2003), and "Pricelessness and Life: an Essay from Guido Calabresi," Maryland Law Review, vol. 65 (2005); Rahul Kumar, "Who Can Be Wronged?" 31 Philosophy and Public Affairs (2003) and "Risks and Wrongs" (unpublished ms.); John F. K. Oberdiek, "The Ethics in Risk Regulation: Towards a Contractualist Re-Orientation," 36 Rutgers Law Journal 199 (2004); James Lenman, "Contractualism and Risk Imposition," Politics, Philosophy, and Economics 7:99 (2008); Dov Waisman, "Reasonable Precaution for the Individual" (February 26, 2014). St. John's Law Review, Forthcoming, Available at: http://ssrn.com/abstract=2060539 and "Reinterpreting Reasonable Precaution: Reply to Barbara Fried" (unpublished ms.); Kenneth W. Simons, Tort Negligence, Cost-Benefit Analysis and Tradeoffs: A Closer Look at the Controversy. Loyola of Los Angeles Law Review, Forthcoming; Boston Univ. School of Law Working Paper No. 08-15. Available at SSRN: http://ssrn.com/abstract=1119286; Johann Frick, "Contractualism and the Ethics of Risk" (unpublished ms.).

purely "ex post contractualism" seems open to counter-example in the same way consequentialism is.

Consider interpersonal due care. Suppose you are sleeping, and I decide to play Russian roulette on your head. Six chambers, one bullet. Luckily for you, when I pull the trigger, the gun goes "click." In this case, I've done something wrong. I've made it the case that you had a one-in-six chance of death in the next few seconds, and that is something you could reasonably ask me not to do. Nothing I can say about why I might have reason to do it (to see what would happen? for cheap thrills?) holds a candle to your reason not to be subjected to those sorts of risks, in which case your objection to being exposed to such serious risks counts as the "reasonable" complaint.

Maybe such risk-creating behavior generally tends to have terrible outcomes. But whatever the objective causal facts, I wrong you simply in the act itself, the instant I pull the trigger, before the hammer snaps, whether or not any material harm comes to pass. It is enough that I have nevertheless done something that substantially raises your ex ante prospects of being hurt, and that you can reasonably complain of my being allowed to impose such risks as I like. Here the basis of your complaint can be nothing more or less that the fact that you are being subject to heightened risks. Your exposure is *itself* a relevant ground for determining what principles should govern behavior, quite aside from any separate objection one may have to what outcomes ensue. For we each surely have an important interest in what risks we are exposed to. This is especially important when our exposure is not under our personal control, and one way of *respecting* this

interest is to give those affected a suitable opportunity to control their level of exposure to the relevant risks (you are left free to put the gun to your own head, or not, without my encouragement). But the underlying objection can be grounded simply in a basic interest in not being subject to risk itself.

To be sure, it may be that a known tendency for some type of action to do harm shapes our *evidence* about what risks are being created in a particular act.

This will shape our judgment of what risks are or are not being imposed. But one's objection can lie in simply not being subject to risk, aside from evidence-independent facts about what outcome results. If that's a relevant, important interest, then, in at least some cases, it will ground a stronger objection than a risk-imposer's countervailing objection to being asked to bear the (perhaps modest or trivial) burdens of acting with care.

The interest we have in our exposure to risk is an objective interest in its own right, which is not to be confused with or reduced to our separate interests in not suffering the *experience* of risk exposure. Whether it is the gnawing uncertainty, the trouble for one's plans, the feelings of insecurity, or the feelings of disrespect in being seen as "on call" for the purposes of others, these experiential states are not our only potential grounds for complaint. I could have put the gun to your head in your sleep, and never showed you the video I took of the event, sparing you of the experiential harm you'd suffer had you known what I'd done. All the same, you could reasonably object to my act, and would have been wronged (whether you knew it or not). If I do show you the video later, you won't object to the unpleasantness of my making you *see* it, as though I should *never have brought that*

 $sordid\ video\ to\ your\ attention.$ You'll object to the risks I actually exposed you to with the gun. 18

All of this is to say that one's exposure to risk can itself ground a principle that requires a certain level of care. Without specifying a "level of care" in a general way for all policies, one such principle might compare policies, as follows:

Principle of Due Care I: absent special justification, when (i) a course of action can be expected to create severe risks of injury to someone (a person, or class of persons, who may face either a high probability of a serious harm, or a modest probability of very great harm); and (ii) an alternative course of action is significantly (non-trivially) less likely to so injure that person; and (iii) the alternative comes at only a trivial or modest expected cost to any person other than the persons in question, it is impermissible to go ahead with the conduct that creates the risks instead of choosing the less risky alternative.

When this principle applies depends on how we identify both "serious" risks and "modest" expected costs of regulation. It plausibly covers playing Russian roulette versus not, as well as the less dramatic case in which I inadvertently buzz by you while driving, heightening your risks of being clipped, because I'm texting and caught up in the fun, when I could instead keep my eyes on the road. At least in the absence of some "special justification" (e.g. you voluntarily assume the risk), the

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¹⁸ I thank Alex Sarch for discussion of this point.

argument goes through even before we know whether any harm is or will be done.

The principle applies simply because, given your relatively good reasons not to be exposed to serious risks, you could reasonably object to any principle that permitted the relatively lax level of care. 19

From Personal to Public Morality

So much is true in high theory, but so far of modest import. As Barbara Fried emphasizes, such simple and stylized examples from interpersonal morality are of marginal relevance to the more complicated cases at issue in most ordinary public administration.²⁰ I return to these complications momentarily. But if we simplify for the moment, by holding all else equal, it is not too hard to imagine roughly and relevantly similar cases of great practical importance. Here would be an institutional analogue of Due Care I:

Principle of Due Care II: absent special justification, when (i) social regulations (or their absence) can be expected to create serious risks of injury to someone (a person, or class of persons, faced with either a high probability of a serious harm, or a modest probability of very great harm); and (ii) alternative policies are significantly (non-trivially) less likely to cause the relevant injuries to the class of persons in question; and (iii) the alternative comes at only a trivial or modest expected cost to any person

¹⁹ This is not an objection to a "hybrid" version that allows objections both from risk subjection and outcomes. The hybrid version does raise difficult questions of balancing, some of which I discuss in "Contractualism's (Not So) Slippery Slope."

²⁰ See the references in note 2.

other than the persons in question, it is impermissible to go ahead with the regulations that creates or allows the risks instead of choosing the less risky arrangements.

In fact, many people are subject to a serious, sustained risk of having their lives upended in a financial crisis because of liberalized financial markets. Assume such risks are significantly lessened under some regime of capital controls, at only a trivial or modest expected cost to others. Then, because the others will have relatively weak grounds for complaint, the people subject to the severe risks could reasonably insist upon Due Care II, and so the less risky scheme of controls.

Is the relevant objection here the imposition of risk itself, and not any consequent harm done? To see how it might be, take a person—call him Working Class Joe—who lived through the crisis-free post-war years of the Bretton Woods capital controls (1945-1971). During the subsequent decades of capital liberalization, when banking, currency, and sovereign debt crises started increasing worldwide, let's assume that Joe managed reasonably well.²¹ Fortunately for him, in fact, he then died of natural causes at a ripe old age on the eve of the Great Recession in late 2008, only days before his savings and retirement prospects would have been decimated, casting him into destitution, rendering his overall life a much worse life than it was.

So the guy got lucky (in one respect) in dodging the Great Recession bullet, as it were; had he not died just then, or had the crises erupted earlier, his life overall

For references concerning such actual trends, see my *Fairness and Practice: A Social Contract for a Global Economy* (OUP, 2012), ch. 8, called "Financial Crises."

would not have gone as well as it did. In that sense, the crisis did him no material harm. On the other hand, assuming the crises could have broken out earlier in the post-1970 liberalization experiment, the man subject to significant risks of catastrophic socio-economic injury over much his life, avoiding serious material injury only by a narrow escape. Even if he was ultimately unharmed, or even the modest beneficiary of years of cheap credit, it seems unjustifiable that it took a fortuitously timed death to save him from personal catastrophe.²²

This is true under realistic depictions of what happened. Suppose Joe's country (e.g., the US) had insufficient reason to expect his life prospects (or people in his representative social class, e.g., "low skilled workers") not to have been sharply worsened by the increasing move to financial liberalization at some point over the course of his life, given what could have been known about financial crises from historical experience. Suppose it wasn't the best idea to presume, in the decades before the crisis, that this time would of course be different, 23 and suppose little or no effort was made to stave off crisis risk, to mitigate their size or scope, or even to establish institutions that could be expected to compensate for harm after things went south. Suppose, in particular, that compensatory institutions could well

I should emphasize that the idea here is not that Joe is somehow wronged by the imposition of *a harm* he never suffered during his lifetime (a harm Aristotle might admit, post-mortem). We have to suppose that we are judging prevailing institutions, as compared to feasible alternatives, while limiting ourselves to the informational frame of reference available over the decades in question. The "available" evidence needn't be limited to the exact state of evidence as it was when key decisions or omissions were made; we can also assess whether policy-makers or researchers saw fit to gather evidence that they could have obtained through new research. In a purely ex ante argument, from within a presumed informational frame of reference, we assess alternatives only in view of *expected* benefits and harms that might befall persons in different representative social positions, judged "historically" or "subjunctive-historically," as relevant. We judge institutional decisions only in view of how reasonable expectations of benefit or harm were or were not accounted for, quite aside from what benefits or harms ensue.

²³ Carmen M. Reinhart and Kenneth S. Rogoff, *This Time is Different: Eight Centuries of Financial Folly* (Princeton: Princeton University Press, 2009).

have been adopted ahead of time, but leaders were busy dwelling on the short-run, or worried more about not missing out on the benefits of a less cautious approach, or piously noting aggregate benefits over the economist's "long run." Maybe some popular cost-benefit calculus recommended gaining as much as possible and cleaning up any messes after they occur. Suppose, indeed, that many decision-makers consciously followed a cost-benefit decision rule that tells you to optimize aggregated expected total gains over total costs, with no special aversion to rather serious downside risks.

Under those conditions, it seems plausible to say that the people subject to the heightened, avoidable risks—e.g., lower or medium-skilled workers—got hosed, which is to say: at least all else equal, they could have reasonably demanded a more cautious approach all along, on the force of their considerable interest in not being subjected to sharp risks of injury. That's equally true of people whose lives were in fact upended, as well as those who luckily navigated the crisis unscathed (their homes didn't quite go underwater, and they weren't cut from the payrolls). They, too, were wronged over the liberalization years, much in the way you are wronged when I put a loaded gun to your head—by the imposition of risk itself.

Is the Matter Complicated?

We've simplified matters by assuming that other things are equal. But of course most real world cases have complicating factors that could in principle justify Joe's risks. If we consider several of the main reasons in turn, however, none seem to do so.

Severity. A one-in-six chance of irreparable, catastrophic harm is relatively high and rare. The risk of dying in an auto accident or airplane crash, say, is far lower (apparently, even on *crashing planes*, 95 per cent of people survive). Those faced with an unlikely terrible outcome won't necessarily have forceful grounds for asking society to forgo driving or air travel. I put people at a very slight risk of serious harm when I start my well-maintained car in a crowded parking garage, which could explode in a freak electrical mishap. But the sheer improbability of the mishap implies that people in the garage or neighborhood won't have forceful enough grounds for objecting to being asked to bear them. So there's no general prohibition on risk creation per se, and even if certain financial market regulations (or lack of regulations) did broadly shape Joe's fate, the case has yet to be made that they created risks he could forcefully complain of, in view of some less risky alternative.

On the other hand, in the case of Joe and the working class, the risks were avoidable and plenty severe. Although there's a complicated story to tell about the fall of the Bretton Woods system of capital controls, the role of the U.S. dollar as the world's reserve currency, banking deregulation, and a certain forgetfulness about the Great Depression, the increase of crises worldwide since the early 1970s mainly reflected conscious efforts to undo the much less crisis-prone systems of the postwar decades. This was despite ample evidence of crisis risk (with warnings by Nobel economist James Tobin and others) of what could easily be another Great Depression aftermath, and feasible ways of mitigating those risks (e.g., with securities taxes, prudent banking supervision, use of IMF "Special Drawing Rights"

as the world's reserve currency, and more). Long-term unemployment, loss of home, bankruptcy, a permanent disruption of one's lifetime income trajectory perhaps aren't quite as bad as death, but surely they are terrible enough for anyone to have powerful reason not to have to face significant chances of suffering such hardships.

Voluntary Assumption. If involuntary Russian roulette is obviously wrong, a social system might permissibly allow even serious risks because they are voluntarily assumed. Provided a reasonable alternative course of action, those who have chosen to assume them may be fairly held liable for costs that ensue (e.g., a man sky dives for fun, opting in frugality for a cheap parachute; a stock trader puts everything he owns on the line, in a gamble for redemption after a series of humiliating sour bets.) Even if we don't hold them liable for any and all costs they suffer as a result (e.g., we should still provide an ambulance when the parachute fails), any objection they might have had to risk exposure is dramatically undercut when they've exposed themselves to them, when they could have avoided this at a reasonable cost.

But of course few if any people can avoid being exposed to crisis risks at a reasonable cost. Most people (traders and investors aside) can't be said to have taken a voluntary gamble on liberalized markets, provide some reasonable alternative to this. Should Joe and the working class have quit the country? Could this have come at a reasonable cost? Could they have even found a country that wasn't also subject to risking crisis risk in an era of capital mobility, contagion effects, and crises of global scope?

Inter-personal aggregation. In certain cases, even serious risks to one person can be justified because others stand to reap sufficient benefit from this. You can arguably let a person die to save five others from death. In that case, it seems you can subject a person to a significant risk of death if this necessary to give each of five people that same chance of life. Scanlon's contractualism bans any direct aggregation of benefit or harm across different persons, requiring us to compare the total benefit or burden for each, taking them one by one. But it also allows an agent to count the numbers affected when the harms in question are "comparably" severe.²⁴ You can let one person die to save five from permanent paralysis. Likewise, we might add, risks of harm and prospects of benefit can be comparable, where we decide "comparability" in a balance of probability and valence: while a practically certain chance of death can't compare to a practically certain chance of breaking one's legs, perhaps an 85% chance of having one's legs broken provides a comparable ground for complaint to a 15% chance of death. In that case, you could permissibly put one person at a non-trivial, significant risk of death in order to confidently save five from broken legs.

But in the case of Working Class Joe, we don't find a ready aggregative defense of his risks. Not only are the risks severe, and spread across large numbers of people, the expected gains of liberalized finance could only be said to fall with great confidence to a relatively small and prosperous group (notwithstanding vague metaphors about "rising tides lifting all boats," and the like). And while the better off do sometimes take a "haircut" or worse, the losses to the rich aren't comparable

²⁴ What We Owe To Each Other, p. 229.

to a lower-wage working person's seeing his or her lifetime earning prospects dramatically reduced.

One might suggest that, Scanlon's strictures aside, we should instead count the aggregated cost. Joe can't reasonably complain of his risks if they are recommended by an aggregative cost benefit analysis, which weighs his risks against a larger sum of benefits spread across many others. But, for one thing, even such an aggregative argument won't support liberalized financial markets that lack sharp controls for crisis risk. Crises are often so destructive that the severity and scope of the risks swamp any relatively modest benefits that even large numbers of people might see. But in any case, at least in the present context, an aggregative weighing function does not seem appropriate, if only because it is insensitive to risk distribution. Even if a society did allow only those crises of just the intensity and frequency needed for expected benefits in total, over the long run, it could well be that an unlucky sub-group bore most of the risks of severe injury and the benefits that tally up in the aggregate fall in very modest levels to each of a very large number of people, no one of which gains nearly as much as the expected losers lose. Indeed, in theory, it could be that the risk bearers come in very large numbers comprising most of society—while the expected gains fall to a fortunate few. But the severity of the risks for people like Joe suggest precisely that so pursuing the aggregated good would not be just.

Intra-personal aggregation. This brings us to the best hope for justifying Joe's risks. Even when severe risks are not voluntarily assumed, and not justified by benefits to others, they may be offset by greater expected benefits to that same

person him or herself. Unlike Russian roulette, in the context of ongoing social practices and institutions, we have no clean line between a wrongful act, which simply should not be done, and acts that can be rectified after the act, in part by being allowed to benefit from risk creation. You and I can start our respective autos, despite very slight chances killing each other, when this is licensed within a larger, mutually beneficial practice in which we and others are equally creating such slight risks our daily routines. Indeed, risks of harm to a person over one period of time can be set right by benefits that can be expected to come even at much later stages of the person's life. When a relationship is temporally extended, or even presumptively indefinite (as with marriage and citizenship), the question of justifiability extends very far out, over the person's whole lifetime.

It is important that this point applies to *expected* lifetime benefits, and not simply to life outcomes. In Francis Kamm's helpful example, when we permit ambulances to speed, we each face risks of dying in a traffic collision. Some will indeed suffer premature death in the occasional accident, but this is arguably justifiable to each involved given the considerable net expected benefit to each of receiving expedited passage to a hospital in his or her own time of need. More generally, when everyone has roughly similar ex ante prospects of benefit, a policy rule that is justifiable to each, given sufficiently large benefits in prospect, can be formally co-extensive (a la Harsanyi) with a rule that maximizes aggregated expected costs and benefits for all involved.²⁵ Perhaps this is the situation in some larger class of low-level "background risks" (of ambulance accident, car engines

²⁵ John Harsanyi, "Cardinal Utility in Welfare Economics and in the Theory of Risk Taking," *Journal of Political Economy* 61 (1953): 434-5.

exploding, planes crashing): we rightly permit them as part of everyday life, perhaps bundled all together, because each of us reaps considerable net expected benefits from this over the course of our respective lifetimes, despite that fact that some of us die sooner than we otherwise would.

In the case of financial liberalization, an economist might suggest that people like Joe really are better off overall, especially over the long run. But they won't themselves benefit in the economist's "long run," since as Keynes famously quipped, we'll all be long dead. Even in a temporally extended relationship, benefits must be foreseen within each person's lifetime, and there are limits of credibility on how far serious, present and ongoing risks can be "bundled" into expected later rewards. It is not fine for me to dramatically raise the chances of serious injury to others by shooting a gun indiscriminately into a restaurant, because it just isn't true, even over the longer run, that a system that permits such risky deeds can be expected to benefit everyone more than any more cautious alternative. Likewise, in matters financial, a serious case for overall benefit must be made rather than presumed.

Nor will any such argument seem very credible if we can't just squint and ponder the world historical long run. There's at least a case to make that people really can be irreparably harmed, over the course of their whole lives, for their exposure to liberalized capital flows and crisis risks, as compared to feasible alternative arrangements (e.g., those akin to the relatively safe Bretton Woods decades of free goods and services trade and careful capital controls).²⁶ And in any case, there are certainly dramatic asymmetries of risk, especially among the

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See Aaron James, *Fairness In Practice*, ch. 8.

advanced and developing worlds, but also among the more and less affluent in the rich world. The considerable differences in people's risk exposure are themselves enough to undercut any general "bundling" argument. We're all in it together, but only up to a point.²⁷

Precaution and Rectification

In closing, I briefly consider what all this means for the question of administration. I've suggested that a *purely* aggregative cost-benefit rule won't reliably steer us to morally permissible law and policy, and that, in certain cases, a principle of due care (Due Care II) should shape institutional choices. Here I won't offer any very determinate rule for weighing expected costs and benefits accordingly, except to say this: assuming *arguendo* the general apparatus of cost-benefit analysis (which is open to tweaking²⁸), any sufficiently "serious" risks being created require a heavy precautionary thumb in the scales. We are to give much greater weight to severe risks than to potential upsides, when the two conflict.²⁹

²⁷ Note that, unless we can so offset asymmetrical risks, we won't have Harsanyi's formal rationale for a rule of interpersonal aggregation. Because we can't presume expected overall benefit for each, his abstract model gives us no reason at all to treat an aggregative rule as a default for policy choice. See my "Contractualism's (Not So) Slippery Slope" for further discussion, and John Broome, *Weighing Goods* (Oxford: Blackwell, 1991), pp. 51-8, on the limited applicability of Harsanyi's formal results.

²⁸ Matthew Adler, *Well-being and Fair Distribution: Beyond Cost-Benefit Analysis* (Oxford University

Matthew Adler, Well-being and Fair Distribution: Beyond Cost-Benefit Analysis (Oxford University Press, 2014) argues, from within a welfarist perspective, that public choice should move away from cost-benefit analysis to a "social welfare function" framework, which better accommodates distributive and non-aggregative considerations. This suits my argument nicely, but for present purposes I remain neutral on the delicacies formal representation, as long as (i) "prioritarian" weight can indeed be attached to the imposition of risk itself, where (ii) probabilities of harm may not be calculable or only very roughly estimated in orders of magnitude.

²⁹ If we treat this as an issue of risk distribution, even within cost-benefit analysis, one proposal is to add "distributional weights," that is: "adjust costs and benefits with weighting factors that are inversely proportional to the well-being levels (as determined by income and also perhaps non-income attributes such as health) of the affected individuals," Matthew Adler, "Cost-Benefit Analysis and Distributional Weights: an Overview" (ms.). In a similar vein, Richard A Posner, *Catastrophe: Risk and Response* (Oxford: Oxford University Press, 2004), p. 175, suggests several ways of tweaking cost-benefit analysis to absorb

A weak "precautionary principle" that says only that uncertainty does not justify inaction. This is a more demanding requirement: saying that we are to give great weight to serious risks relative to prospective benefits at least frames what sort of precautionary action is needed. But this is weaker than a strong "precautionary principle" that asks us to reduce risks while paying no attention at all to opportunity costs. We can count the costs, in any number of the ways suggested above. But even so, public choice can still be firmly guided by precaution when much greater weight is given to severe risks than to potential upsides.

Consider how such weighing might proceed. Earlier I suggested that my putting the gun to your head for sport, without your permission, is itself something you can reasonably ask me not to do, because you have very good reason not to have people do things that so raise your ex ante prospects of injury. If this is correct, it might make a difference to how I should decide what to do before the act. I should think not only that I shouldn't harm you, but also that I shouldn't expose you to certain risks, whether you are harmed or not. And if I'm taking the long view, I might also contemplate what I might have to do if I go through with it (supposing you somehow live), factoring this in to my overall cost-benefit assessment.

I'll at least owe you an apology, which may be uncomfortable. I could also fairly pay you in large sums, simply for the risk imposition itself. Which could get expensive, if you figure things as follows. You'll either suffer harm, or not. If you are harmed (by my bullet's glancing blow to your head), I'll owe you twice over. I'll owe

the force of moderate precautionary principles and account for "radical, non-quantifiable uncertainty." For criticism, see Darrel Mollendorf, "Risks, Uncertainties, and Precaution," ch. 3 of The Moral Challenge of Dangerous Climate Change: Values, Poverty, and Policy (Cambridge University Press, 2014).

you first for what it takes to leave you no worse off than you would have been had the harm not occurred (payment for the doctor bills, time lost at work, emotional damages, etc.). And I'll owe you second for whatever it takes—five or five thousand or five hundred thousand dollars—to repair your having been subjected to the risks itself. That, too, arguably calls for rectification, since, in the case in which you live, it cannot be said that you are "no worse off" for having being subjected to the risk.³⁰ And it at least makes sense to suppose that righting the wrongful imposition would involve paying appropriate "damages." In sum, then, if you aren't harmed, I'll save on costs, because I won't have to pay the medical bills (etc.). But I'll still have to pay the five or fifty or five hundred thousand dollars to set things right. And that is, quite frankly, a lot to pay on a tight budget simply to play a quick if exhilarating game of Russian roulette. (Much cheaper to gamble with one's own head.)

Likewise, in systemic risk decisions, officials that make (or gut) rules might count the severe risks being thereby created as a weighty consideration, as a "cost" to be factored in. They might tally them in quite aside from the further social costs people suffer when the risks ripen into harm. And if some of those social costs have to be compensated, they might add those in as well.

What might that entail? Assume for the moment that ex post compensation requires that no one is to be left worse off by the contemplated law, policy, or institution. That's already a tall order in a major financial crisis. It won't be possible to let the risks ride and simply clean up in the aftermath, since many of the potential

³⁰ I call this "rectification" instead of "compensation" in case one wishes to assume that compensation is always for harm done. I develop the point in the text further below as applied to financial crises, and do not assume that that point follows from the suggestive claims made here.

harms will be irreparable if they're allowed. In that case, measures of prevention, to the ex ante crisis risk, are necessary. In our still relatively liberalized system, that might call for aggressive, even draconian controls on destabilizing (especially short-term) capital flows, stringent banking supervision, high reserves requirements, the sharp segregation of banking and investment, and so on. (In the different case of climate change, we'd need a heavy-handed carbon tax or cap and trade system, aggressive "green" investment, alternative energy sources, and other measures of mitigation, etc.) But even relatively radical measures won't fully eliminate very significant risks, and so, assuming harm will come to pass eventually, we'd have to prepare by establishing robust compensatory institutions and expensive tax and transfer schemes, within and across societies. Since they won't be affordable when crises break out, when national budgets become strapped, we'd better start taxing and amassing the savings right away.³¹

In all this we've only reckoned with the expected cost of repairing damage actually done. We have yet to add the "cost" of the imposition of risk itself. But if we were trying to leave people no worse off in their lifetime (ex ante) prospects, we couldn't just repair the damage actually done; we'd also have to give repair for the fact the people were subjected to risks. If you bet your house in Vegas, and luckily break even, you aren't as well off as you we're before. You're worse off than you would have been had you not taken the gamble, since you'd then have the house without having been subject to a risk of having your life upended. To "break even" overall, you'd have had to win something sufficient to compensate for the "cost" of

³¹ I develop the foregoing line of argument more fully in "Financial Crises," Ch. 8 of *Fairness in Practice*.

your in fact being subject to that risk. So that level of benefit must be arranged as well.

How much is "sufficient"? How much by way of expected benefit can one reasonably ask for when one is being subjected to relatively serious risks? Surely, it must come to more than the *slightest* net expectation of gain, over the course of one's life. It seems plausible enough to add that the size of the expected net benefit should increase with the significance of the risks (subject, of course, to the like claims of others).

For suppose someone absconded with the title deed to your house, and then won big betting it on Roulette at the casino or Mafioso betting outfit. You wouldn't be compensated if the person happily returned the deed intact, perhaps with a thousand extra dollars for your troubles. Maybe, given the extra money, your material situation is thereby slightly improved. Even so, you'd rightly demand more. You'd rightly demand a large share of the payday—perhaps even the lion's share—in repair for the enormous risk imposed. You might ask for a proportion of the payday that increases with the severity of the risks imposed.

Likewise with Working Class Joe. By stipulation, his prospects weren't materially worsened for his years of exposure to heightened crisis risk during the liberalization years. He got a Plasma TV, and maybe a slightly bigger house because credit was cheap. Even so, it seems he could rightly have asked for more than such a slight level of net benefit over the course of his life, given the severity of the risks of crisis-induced injury he was in fact exposed to. Perhaps he could be so outlandish as to ask for steadily rising wages (rather than the wage stagnation that most working

people actually saw over the same three-decade period); or at least wages that rise with his increasing productivity, because of technological progress (rather than productivity gains going to managers and shareholders); or, at very least, a shorterwork week at the same total pay (instead of workers keeping flat-line wages only by working longer hours). I submit that even such lavish treatment is arguably not benefit enough. As the severity of the risks increase, it would seem, his net expectation of benefit should increase correspondingly.

Because Working Class Joe only got the TV, he wasn't given his due, even as he was spared the crisis aftermath. Nor, then, were the millions of people who watched their lives dramatically worsen, for losing their jobs and homes, though no fault of their own. If that's already happened, the same is true looking forward, in view of the measly (but not insignificant³²) re-regulation of financial markets now underway, or in view of today's modest efforts at a global climate change accord. We don't have to wait for the next financial crisis or ecological disaster to know certain moral truths. A distinctive injustice in the imposition of systemic risk is arguably being done today, whether or not, or to whatever extent, calamity finally ensues.

One prominent critic after the 2008 crisis is upbeat about recent regulatory developments; see Andrew Haldane, "A Leaf Being Turned" (speech at http://www.bankofengland.co.uk/publications/Documents/speeches/2012/speech616.pdf).

Abstract for "The Distinctive Significance of Systemic Risk": This paper suggests that "systemic risk" (e.g., of financial market collapse, or of ecological calamity) has a distinctive kind of moral significance. Two intuitive data points need to be explained. The first is that the systematic imposition of risk can be wrongful or unjust in and of itself, even if harm never ensues. The second is that, even so, there may be no one in particular to blame. We can explain both ideas in terms of what I call responsibilities of "Collective Due Care." Collective Due Care arguably precludes purely aggregative cost-benefit decision-making and requires one kind of "precautionary" attitude in public choice.