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Theorizing Risk: Ulrich Beck, Globalization and the Rise of the Risk Society

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Abstract

Ulrich Beck has been one of the foremost sociologists of the last few decades, single-handedly promoting the concept of risk and risk research in contemporary sociology and social theory. Indeed, his world risk society thesis has become widely popular, capturing current concerns about the consequences of modernity, fears about risk and security as a result of globalization and its implications for the state and social organization. Much of the discussion generated, however, has been of an abstract conceptual nature and has not always travelled well into fields such as political science, political theory and International Relations. This article introduces Beck to a wider audience while analyzing his work and assessing it against recent empirical evidence in relation to the effects of globalization on individual risk and systemic risk to the state.

Key Words: Risk, Risk Society, Ulrich Beck, Risk theory, sociology of risk

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Introduction

According to David Garland, the eminent sociologist Anthony Giddens likes to begin public lectures by posing the following question to his audience: "What do the following have in common? Mad cow disease; the troubles as Lloyds Insurance; the Nick Leeson affair [at Bearings Bank]; genetically modified crops; global warming; the notion that red wine is good for you; anxieties about declining sperm counts?"[1] The answer, of course, is that they are all about risk and how risk in multifarious settings now dominates social, political and economic discourse — if not the cultural mindset of late modern society itself. More specifically, the common thread in Giddens' list relates to how technology and science is impacting our lives; creating risks and unintended consequences for the environment, our health and wellbeing.

Giddens, of course, was not alone in his observations. Ulrich Beck was one of the first sociologists to recognize this strange paradox in late modern society; that risk might in fact be increasing due to technology, science and industrialism rather than being abated by scientific and technological progress. Rather than a world less prone to risk, late modernity might actually be creating what Beck famously described as a "world risk society."[2]

But how was this possible? How could the forces responsible for such remarkable progress and betterment in the human condition, science and technology, now be the culprits responsible for increased danger and harm? How could the forces responsible for

[1] Anthony Giddens as quoted in David Garland (2003), "The Rise of Risk," in Richard V. Ericson and Aaron Doyle (eds.), Risk and Morality. (Green College Thematic Lecture Series), Toronto: University of Toronto Press, p.48.

[2] Ulrich Beck (1999), World Risk Society. Cambridge: Polity Press. Other contributions to risk discourse and theory have been made by Anthony Giddens (1990), The Consequences of Modernity. Cambridge: Polity; Anthony Giddens (1991), Modernity and Self-Identity. Cambridge. Polity; Mary Douglas and Aaron B. Wildavsky (1982), Risk and Culture: An Essay in the Selection of Technical and Environmental Dangers. Berkeley: University of California Press; Mary Douglas (1992), Risk and Blame: Essays in Cultural Theory. London: Routledge; Niklas Luhmann (1993), Risk: A Sociological Theory. New York: Aldine De Gruyter; Barbara Adam (1998), Timescapes of Modernity: The Environment and Invisible Hazards. London: Routledge.

producing the greatest levels of material wealth yet seen in human history, now be the major engines of risk production in society? How could progress on virtually all fronts of human endeavor also be accompanied by a society prone to more risk, more danger and more harm than ever before?

Ulrich Beck and the Rise of the Risk Society: Risk and Progress

The paradoxical existence of both progress and risk comprise the principal themes of the work of Ulrich Beck. Beck's contribution to the field is wide and varied and undeniably one of the foremost theoretical treatise on societal risk in the late twentieth and early twenty-first century. Single handedly, Beck has generated a small industry into risk research and, in no small measure, has managed to elevate risk to centre stage as a prime analytical rubric for understanding the dilemmas of late modernity. More obviously, his work has tapped the cultural psyche of contemporary society and the elevated fears shared across national borders about risks as far ranging as degradations to the global ecology, global health pandemics such as AIDS and SARS, international terrorism, or the health consequences feared as a result of exposure to a myriad of technologies; GMOs, electromagnetic radiation, chemicals, industrial toxins and pollutants—to name but a few. The wave of recidivist movements championing organic foods, natural herbal medicines, environmental protection and a return to nature, and who broadly reject the progressivist thesis of science and technology as benign benefactors, is now widespread across most advanced industrial societies—indeed in many, has come to comprise powerful political movements. Risk, fear, an increasing distrust of science and technology and its profit driven outcomes, a common perception that there are now limits to scientific progress and further economic growth and industrialization, have become endemic features of late modern culture.

Beck's thesis is an attempt to understand this remarkable transformation in social attitudes and fears, and an attempt to examine the interstitial forces at play between technology, science, political and social institutions, and the risk consequences of these both for the individual and society as a whole. It is, in one sense, an assessment of the role of

technology on human well-being, but in another how the complex reflexive relationships between science, technology and social-political institutions structure outcomes over which our control and influence might now be challenged or compromised. Ultimately, of course, it is a commentary about the condition of late modernity and an assessment of how technology and science mediated through market relations and various social institutions under industrial modernity, are shaping the future—one dominated by the matrix of risk.

Unlike previous social theorists of the ilk of Marx, Weber or Durkheim, all of whom attempt to understand the broader forces at work in society by examining many of its internal contradictions and thus the junctures for its impending collapse, radical transformation or political capture, Beck is far more sanguine. Indeed, it is not contradictions, violent confrontations, class struggles, or systemic institutional failure that captures Beck's imagination, but rather the fact of industrial society's absolute success. Indeed, Back celebrates the achievements of modernity, the advances of science, and how each has transformed all manner of things from the goods we consume to the modes of communication we now enjoy. Understanding Beck's thesis thus begins with understanding the spread of industrial modernity and its mastery over nature.

Beck, the Enlightenment and Modernity

Like many of his contemporaries Beck is a celebrant of the enlightenment, which he sees as a potent combination of secular ideals and rationalist epistemologies that came to be articulated through scientific inquiry and technological developments. Collectively, these enabled revolutions in thinking, social, political and economic organization, and in doing so laid the foundations of the modernist project; the quest to conquer nature, rid humanity of the pernicious edge of scarcity whether in food security, shelter or basic needs, and fight the scourge of virulence, pestilence and disease. So successful has this project been that, for Beck, it has allowed most of these plights to be addressed—and some contained; nature rolled back and partially tamed, the essence of life and genesis itself discovered through DNA science. Penultimately, it has allowed the modernist project to deliver

much; unsurpassed amounts of progress, betterment, technological breakthroughs, material improvements that, while not equally distributed, are now enjoyed by increasing numbers of humanity.[3]

For Beck, much of the modernist project is thus now complete. No longer is humankind concerned "exclusively with making nature useful, or with releasing mankind from traditional constraints." Genuine material need, he notes, has "been objectively reduced and socially isolated through the development of human and technological productivity, as well as through legal and welfare-state protections and regulations."[4] Ironically, however, it is at this point where Beck believes industrial modernity has reached its limits and to be undergoing a period of transformation, moving irreversibly to a new historical epoch Beck labels "reflexive modernity." This transformation is propelled by the very outcomes produced under industrial modernity and represents a natural outgrowth of its success rather than any systemic crisis or contradiction.[5] Rather, for Beck, the fact of industrial modernity's success and the near ubiquitous spread of industrial capitalism, is producing global outcomes that are undermining their own material benefits—or at least will increasingly have the potential to do so:

> . . . by virtue of its inherent dynamism, modern society is undercutting its formations of class, stratum, occupation, sex roles, nuclear family, plant, business sectors and of course also the prerequisites and continuing forms of natural techno-economic progress.[6]

What are the elements that undermine modernization and modernity? For Beck they are surprisingly uninspiring and seemingly inconsequential taken individually, but collectively have cumulative significance. They comprise five interrelated processes:

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[3] See Darryl S.L. Jarvis (1998), "Postmodernism: A Critical Typology," Politics and Society, 26 (1), pp.95-142.
[4] Ulrich Beck (2000c), Risk Society: Towards a New Modernity. Sage, p.19.
[5] Beck variously calls "reflexive modernity" the "second modernity" and modernity or industrial modernity the "first modernity." See Ulrich Beck (1999), World Risk Society. Cambridge: Polity Press, pp.1-2.
[6] Ulrich Beck, Anthony Giddens and Scott Lash (1994), Reflexive Modernization: Politics, Tradition and Aesthetics in the Modern Social Order. Cambridge: Polity Press, p. 2.

1. Globalization
2. Individualization
3. Gender Revolution
4. Underemployment
5. Global risks (ecological crisis and the crash of global financial markets, for example).[7]

Each challenges the spatio-political "simple, linear, industrial modernization based on the nation state."[8] Each detract from the traditional socio-political institutions on which industrial society relies for its reproduction, and each sets in place consequences which increase the exposure of individuals and society as a whole to risk. Through a diverse collection of writings, Beck explores these processes and constructs his thesis of the risk society.

Globalization and Risk

For Beck, an obvious outcome of the success of industrial modernity has been its wide spatial distribution, its ability to cross borders and infiltrate cultures. At the same time, however, globalization is not a benign process. For Beck, the advent of globalization challenges the territoriality and sovereignty of the nation-state, reduces the authority of the state and its citizens to act unilaterally or independently, and compromises economic sovereignty by forcing states to act in ways and adopt policies broadly commensurate with the whims of highly mobile capital. Further, it de-nationalizes markets, creates international patterns of competition for foreign investment and forces the state to respond to an international rather than purely domestic constituency; something for which it was not designed since its basis for legitimacy and accountability are located internally, yet much of its material needs now realized through external economic interaction. The democratic authenticity of citizenship is thus eroded under reflexive modernity, and the

[7] Ulrich Beck (1999), op.cit., p.2.
[8] ibid., p.2

mechanisms of accountability and probity otherwise the hallmark of modernity and industrial society, are compromised by the increasingly influential role of non-domestic based economic actors and processes.

Globalization thus results in "a power-play between territorially fixed political actors (government, parliament, unions) and non-territorial economic actors (representatives of capital, finance, trade)" and results in the "political economics of uncertainty and risk" where capital flight, capital strikes, relocation, offshore production and outsourcing, can challenge the economic security of the state and its citizens.[9] For Beck, the effects of this tend to cascade down, infusing government policy by rolling back the welfare state as a result of budget constraints caused by a diminishing corporate tax base (itself the outcome of polices enacted by the state in its attempt to compete for foreign investment and capital) and, in turn, erode the state's ability to support idle labor, the destitute, the physically disabled, or the provision of extensive and costly public goods like education and health. This becomes a "domino effect" as the state retreats from its traditional responsibilities and downloads these on to its citizens, in the process increasing the risk individuals face by making their welfare the preserve of individual responsibility through self provision (private disability and life insurance, for example, unemployment insurance, increased personal savings, etc).

Individualization, Gender Revolution, Underemployment and Risk

Commensurate with the processes observed above under globalization, Beck also observes the historically dynamic role of the welfare state and the way in which it has changed social relations, in part providing individuals with greater choice and freedoms, in part insulating them from the vestiges of personal risk. The historical provision of public goods like education, social support services and economic subsidization, for example, have for Beck increased what he terms individualization and, in the process, helped breakdown the modernist-industrial clans of family, the traditional social

[9] ibid., p.11.

institutions of marriage and the familiar support mechanisms on which modernity relied for its social and economic reproduction. For Beck, these provided security for individuals as well as constraints. Freed of these constraints by greater choice, social mobility through public education, travel and relocation through globalized work practices and migration, modernist-industrial based institutions like the nuclear family are now threatened. While sociologists (Emile Durkheim, Max Weber) have traditionally seen this process as emancipatory; liberating individuals from the constraints of clanship, tribalism, or religious feudalism, for Beck under reflexive modernity liberation from the constraining and social ordering techniques of industrial society only frees individuals into "the turbulence of the risk society."[10] The support networks of family, for example, Beck sees as being replaced by reliance on ones own ingenuity to develop personal support networks; the economic security provided by the nuclear family is replaced by individual responsibility and subject to the vagaries of employment prospects and underwritten by the individual procurement of employment insurance entitlements.

Greater individualization is thus accompanied by greater individual risk. Indeed, this is what Beck means by individualization: "the disintegration of the certainties of industrial society as well as the compulsion to find and invent new certainties for oneself."[11] Thus, while modernity structured social orders in terms of class, gender roles, employment patterns and defined the relationship between capital, class and the welfare state, under reflexive modernity these relationships breakdown. The corporatist relationship between capital, labor and the state, which secured full employment, low inflation and reduced individual risk through welfare entitlements in return for labor stability and productivity growth, has evaporated. Individuals are now exposed to fickle labor markets, flexible labor practices and casualized employment practices with the onus on the individual to continually retrain and reinvent oneself to meet the changing needs of capital and the workplace.[12] Most disturbingly, significant stratums of individuals are now essentially

[10] Ulrich Beck, Anthony Giddens and Scott Lash (1994), op.cit., p.7.
[11] ibid., p.14.
[12] See the discussion in Deborah Lupton (1999), Risk. London: Routledge, pp.69-72. See also discussion in Ulrich Beck (2000a), "The Cosmopolitan Perspective: Sociology in the Second Age of Modernity," British Journal of Sociology, 51(1), January/March, p.89.

disenfranchised by the process of individualization and not able to take responsibility for their economic security. In the post-corporatist era with the retreat of the welfare state, for example, structural unemployment has returned to many of the worlds developed societies (particularly in Europe), with economic growth and corporate profitability coexisting alongside high levels of structural unemployment and or underemployment.[13] Without access to stable or sufficient employment, many individuals experience greater risk vulnerabilities, are not able to access educational resources that are increasingly provisioned through user-fee paying delivery models, or medical services based on private insurance systems.

Collectively, these processes of individualization produce various social articulations that, while dissimilar, are connected for Beck by an increasing dissonance between security and risk, with increasing amounts of responsibility for personal welfare, economic and social security, divested from the state and society to the individual. The result is the production of winners and losers; a stratum of individuals able to provide for themselves, form social networks, achieve educational attainments, procure wealth and insure their personal security. For another stratum it exposes them to increased risk, diminishes their long-term economic security, their ability to access educational opportunities and thus the labor market, and has cascade effects in terms of individual health and well being. More obviously, for Beck, this impacts the broader collectivity in terms of the production of socially undesirable consequences: increases nefarious social activities and criminally deviant behavior, leads to the breakdown of civil society in certain of its locals; ghettoizes individuals and creates socially dysfunctional classes of persons and increases the risk to others in terms of rising crime rates or risks to personal security.

The process of individualization is also reinforced for Beck by the gender revolution under modernity. While this broadens opportunities for women, destabilizes patriarchy and allows women greater access to educational and employment opportunities, it can also increase the risks for women. The decentering of the nuclear family, for example, of

[13] Ulrich Beck (1999), op.cit., pp.10-12.

familiar ties and obligations, can relieve men of their paternal obligations and divest responsibility for child rearing onto women exclusively. This creates a stratum of economically disadvantaged single parent families and increases the emotional and financial stresses on single parent women to juggle individual responsibility for their careers, economic security for them and their children, as well as mange child rearing responsibilities.[14]

In all, Beck sees reflexive modernity as a systemic transformation of great magnitude, a mechanism that "detraditionalizes" industrial social ordering systems while, on the other hand, producing a "social surge of individualization." The contention, of course, is that "we do not yet live in a risk society, but we also no longer live only within the distribution conflicts of scarcity societies."[15] Rather, we are currently "eye witnesses to a social transformation within modernity, in the course of which people will be set free from the social forms of industrial society—class, stratification, family, gender status of men and women."[16] The outcomes of this transformation in terms of the specific ways in which radicalized modernization and individualization might articulate and the various socio-political structures they might evolve, remain opaque for Beck. The macrostructural consequences of radicalized modernization, however, are all too apparent for Beck and involve the construction of new forms of social risk, the outcomes of which makes social security and individual well being more problematic than they have hitherto been.

Global Risks and Radicalized Modernization: The Consequences of Reflexive Modernity

While Beck's thesis into the emergence of broadly based societal risks might resonate with those concerned with the desocialization of public goods and issues of collective responsibility for welfare, Beck's risk thesis is primarily celebrated in terms of its observations about the impacts of radicalized modernization on technology and the

[14] Ulrich Beck, Anthony Giddens and Scott Lash (1994), op.cit., pp.14-16.
[15] Ulrich Beck (2000c), op.cit., p.20.
[16] ibid., p.87.

production of global risks. For Beck, this is the fifth of his "interrelated processes" and relates to the consequences of technological progress and innovation. This has produced technologies that can be globally devastating or, as the case may be, derivative consequences that emerge from the application of technologies whose implications were unforeseen, unintended and unknowable. This is the global risk society, a concept, notes Beck, "which describes a phase of development of modern society in which the social, political, ecological and individual risks created by the momentum of innovation increasingly elude the control and protective institutions of industrial society."[17] For Beck, this represents a truly unique period of history, one that is capable of its own technological annihilation:

> . . . since the middle [of the twentieth century] the social institutions of industrial society have been confronted with the historically unprecedented possibility of the destruction through decision-making of life on this planet. This distinguishes our epoch not only from the early phase of the industrial revolution, but also from all other cultures and social forms, no matter how diverse and contradictory . . . If a fire breaks out, the fire brigade comes; if a traffic accident occurs, the insurance pays. This interplay between before and after, between the future and security in the here-and-now, because precautions have been taken even for the worst imaginable case, has been revoked in the age of nuclear, chemical and genetic technology. In their brilliant perfection, nuclear power plants have suspended the principle of insurance not only in the economic but in the medical, psychological, cultural, and religious sense. The residual risk society has become an uninsured society, with protection paradoxically diminishing as the danger grows.[18]

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[17] Ulrich Beck (1999), op.cit., p.72. Beck, of course, also allows for the fact that "risk society" is not just the amalgam of unintended consequences produced by technology. It also represents the outcome of political decisions to pursue the development and application of technologies for nefarious ends as with the development of nuclear and chemical weapons, for example.

[18] Ulrich Beck (1992), "From Industrial Society to the Risk Society: Questions of Survival, Social Structure and Ecological Enlightenment," Theory, Culture and Society, Vol. 9, p.101. See also Ulrich Beck (1991), Ecological Enlightenment: Essays on the Politics of the Risk Society. Armherst, New York: Prometheus Books; Anthony Elliott (2002), "Beck's Sociology of Risk: A Critical Assessment," Sociology, 36(2), p.295.

Unnervingly, we have little control over these developments, no room for political discourse to reject their emergence or political space to turn back the clock. Rather, "the transition from the industrial to risk epoch of modernity occurs unintentionally . . . in the course of a dynamic of modernization" and simply reflects the happenstance of "unintended consequences."[19] Ecological crises, for example, emerge from the success of industrialism, of urbanism and the ubiquitous spread of the city as a primary gathering point for commerce, work, and living space. The distribution systems, reliance on automotive transportation, resource and energy demands, destruction of natural habitat and the pollution that ensues are all unintended consequences that cumulatively impact the local and global ecology—perhaps to a point of threatening irreversible destruction as with global warming. Likewise, the spread of genetic technologies and their increasing application in various mediums of medicine, food technology and animal breeding, potentially produce unintended longer term inter-generational risks. Technological developments have thus increased "our capacity to act upon the world in such an intensive and extensive way that the consequences of our actions have escaped our capacity to foresee them."[20] The meltdown and explosion of the Chernobyl nuclear generating facility, for example, had consequences far beyond any emergency scenarios imagined by the engineers who designed and built the plant, impacting not just local citizens but entire populations across national boarders and inter-generationally with the incalculable cost of deformities and birth defects.

Unfortunately, for Beck, under reflexive modernity we see a floodgate of such risks emerging or having the potential to emerge, changing dramatically the meta-structural relationship between society and risk that existed under industrial modernity. Indeed, for Beck it is not just the observation that technology produces risks that is important. Nor is it simply the observation that the extensity of risks under reflexive modernity are of much greater magnitudes. Equally important for Beck is what this does to the social compact erected under industrial modernity and the regime of control over risk that enabled the

[19] Ulrich Beck (1999), op.cit., p.73.
[20] Shlomo Griner (2002), "Living in a World Risk Society: A reply to Mikkel V. Rasmussen," Millennium: Journal of International Studies, 31(1), p.149.

estimation, management, control and compensation for risk exposure. With magnitudes of risk so great, with technological hazards and mishaps so extensive that they transcend both place and time by becoming international or global in scope and intergenerational in space, the prospects for the orderly control and distribution of risk across and within populations becomes both impossible and meaningless.

This is the crux of Beck's thesis and underscores the gravity of his concerns about the consequences of reflexive modernity and the rise of the risk society. While the emergence of threats and risks of larger magnitudes is historically contiguous with the deepening of technology and industrial society and thus historically normal, it is the involuntary devolution of control over these risks in terms of their social management that potentially poses the greatest social harm—indeed threatens our very social order. It is on this basis that Beck can simultaneously observe the apparent paradox of deepening scientific progress, on the one hand, but greater risk on the other; each is coterminous under reflexive modernity, with advances in science and technology simultaneously increasing the technical means of control-management over certain hazards while, at the same time, these same advances presaging the emergence of mega-risks with corresponding reductions in risk control.

Controlling Risks in the Risk Society: Defining Risk, Harm and Hazard

Beck's thesis and the insights it offers about society's apparent movement toward a regime of diminishing control over risk rests on his understanding of risk and its epistemic or generative causes. These he differentiates between hazards; that is, naturally occurring events that can produce harm; and risks, that is, harms that evolve from deliberative calculations made in the utilization of science and technology to produce wealth. These are episodic and correlated closely to historical epochs, each of which evolve systems of social management in an attempt to deal with the manifestations of harm, hazard and risk. For Beck, these comprise three definitional typologies that might loosely be categorized as thus (see also Figure 1.1):

1. *aDecisional Hazard under Pre-modernity: Hazard Versus Risk*

***a*Decisional** hazards characteristic of pre-modernity and typified by natural disasters (acts of God) or de jure hazards: famines, floods, naturally induced privations, crop failures, pestilence, earthquakes, hurricanes and weather related hazards, etc.

For Beck, aDecisional hazards are endemic to the human condition.“ Human dramas,” he notes, have always afflicted humankind. The history of humanity is that of “plagues, famines and natural disasters;” countless catastrophes throughout the ages. Since the dawn of time, various plights have afflicted the human condition and many, Beck acknowledges, have been rolled back if not ameliorated entirely by industrial society. Food security for great swaths of humanity, for example, has been increased; death through privations virtually eradicated in western welfare states. None of this is at issue for Beck. Rather, his point is a simple one: risk and hazard are different conceptualizations, different phenomenon. Hazard refers to those naturally occurring events that are not the product of human activities (earthquakes, lightening strikes, famine caused by drought, tsunamis, hurricanes, fires, or floods, for example). These are acts of god: “pre-industrial hazards, no matter how large and devastating, were ‘strokes of fate’ raining down on mankind from ‘outside’ and attributable to an ‘other’ — gods, demons, or Nature.”[21] The history of human society has been the history of attempting to overcome, or, at the very least, minimize the impact of these hazards. And, in this respect, Beck is able to see great amounts of progress. Industrial modernity, of course, has not been so successful as to eradicate natural disasters but in evolving systems and responses (i.e., early warning and evacuation systems, construction technologies and legal building codes, disaster preparedness and emergency response systems) which enable the consequences of nature to be mostly inconsequential to our societies and political systems as a whole. Naturally existing hazards, in other words, have been increasingly subjected

[21] Ulrich Beck (1992), op.cit., p.97-98.

to a regime of control, emergency management, harm reduction, and disaster relief measures.

2. *Risk Calculus: The Social Construction of Risk and Risk Control under Industrial Modernity*

> **Risk calculus** typified by industrial modernity in which decisions about the production and distribution of wealth through industrialization produce risks but which are incorporated into the economic calculus of society via scientific application, codification, assignment and compensation. Risk is measured, assessed, monitored, controlled, and managed.

Risk, for Beck, is an altogether different jeopardy for human kind from naturally occurring hazards, since risks arise out of the actions and activities of individuals and society through conscious decision-making. Specifically, Beck sees the generation of risk as indelibly connected with the rise of industrial society. Thus, for Beck, hazards "differ essentially from 'risks' . . . since they are not based on decisions, or more specifically, decisions that focus on techno-economic advantages and opportunities." Risk, on the other hand, "presume industrial, that is, techno-economic decisions and considerations of utility."[22] Risks are made, hazards naturally occur. Industrial society in large measure is thus responsible for the manufacture or construction of risks (the problems of urbanization, of illness through industrial pollutants, of accident or injury through automobile travel, of accidental toxic chemical emissions, of electromagnetic radiation through electricity transmission, of toxicity and the side effects of drug therapy). Accordingly, industrial society throws up a functional need for a form of social risk contract; "the problem of social accountability and responsibility irrevocably arises" and requires political accommodation where the rules of risk in terms of accountability, responsibility, and compensation can be institutionalized and managed.[23] More importantly, the imperative of wealth creation through industrialism under capitalist

[22] ibid., p.98.
[23] ibid., p.98.

exchange relations, creates a form of risk socialization where the consequences of industrial risk are morphed into collectivist institutions and insurance markets and underwritten by the state. Individuals are liberated from the consequences of risk in as much as risk can now be transferred through legal instruments to state and commercial institutions. As Beck notes, "Modernity, which brings uncertainty to every niche of existence, finds it counter-principle in a social compact against industrially produced hazards and damages, stitched together out of public and private insurance agreements."[24] The quintessential essence of industrial risk is thus the quest to control and institutionalize it:

> Politically and programmatically, this pact for the containment and 'just' distribution of the consequences of the standard industrial revolution is situated somewhere between socialism and liberalism, because it is based on the systematic creation of consequences and hazards, but at the same time involves individuals in preventing and compensating for them. The consensus that can be achieved with it always remains unstable, conflict laden and in need of revision. For that reason, however, it represents the core, the inner 'social logic' of the consensus on progress, which . . . legitimated techno-economic development in the first phase of industrialism.

This "social compact" or risk contract is central in appreciating the different institutional embodiments of risk under industrial society compared to the global risk society. For Beck, it reflected the highpoint of enlightenment optimism and pragmatism: the application of rationalist controlling epistemologies and knowledge systems to the risk externalities thrown up by the process of industrialization; the tri-partite ascription of responsibility for, and management of, risk between capital, labor and the state to insure that in the production of wealth, risks were identified, managed, controlled, and compensated. The very fabric of industrial society for Beck was thus inscribed by the matrix of risk management, where decisions about utility and wealth production were

[24] ibid., p.100.

coterminous with risk calculation. For Beck, this also explains the growth of the risk industry and of risk science, representing a kind of professional embodiment of industrial society's social compact and the requirements for professional risk administration and management. As Beck notes;

> Risks always depend on decisions . . . They arise from the transformation of uncertainty and hazards into decisions (and compel the making of decisions, which in turn produce risks). The incalculable threats of pre-industrial society (plague, famine, natural catastrophes, wars, but also magic, gods, demons) are transformed into calculable risks in the course of the development of instrumental rational control, which the process of modernization promotes in all spheres of life. This characterizes the situation and the conflicts in early, classical industrial . . . society. In the course of its expansion it is true not only for the 'feasibility' of production capacities, tax revenues, the calculation of export risks and the consequences of war, but also for the vicissitudes of individual lives: accidents, illness, death, social insecurity and poverty. It leads . . . to the emergence of diverse systems of insurance, to the extent that society as a whole comes to be understood as a risk group in insurers' terms—as a provident state and a providing state.[25]

In this way, an increasing number of areas and concerns in society are subjected to the regime of control and the application of risk calculation; from the individual choice of profession in terms of future personal income security, choice about family size, the chosen mode of child rearing, the choice about the food we consume, all argues Beck become the subject of risk calculus and viewed as risk choices and thus subject to the barrage of "accident scenarios, statistics, social research, technical planning, and a great variety of safety measures."[26]

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[25] Ulrich Beck (1999), op.cit., pp.75-76. See also Roy Boyne (2001), "Cosmopolis and Risk: A Conversation with Ulrich Beck," Theory, Culture & Society, 18(4), pp.47-63.
[26] ibid., p.76.

3. *Radicalized Risk: Global Risk Society*

> **Radicalized risk** typified by reflexive modernization in which "industrial technical-scientific projects" produce unintended risks that are incalculable, uninsurable and beyond the control regime of modernity.

Global risk society is distinct from industrial modernity for Beck in one crucial respect: the "social compact" or risk contract is increasingly broken down. Risks, because of their extensity and unknowability are now incalculable and beyond the prospects for control, measurement, socialization and compensation. "Nuclear power, many types of chemical and bio-technological production as well as continuing and threatening ecological destruction," argues Beck, is breaking down the "security pact" of industrial society, and thus the "foundations of the established risk logic are being subverted or suspended."[27] This is the entry into risk society and it occurs when

> . . . the hazards which are now decided and consequently produced by society <u>undermine and/or cancel the established safety systems of the welfare state's existing risk calculations</u>. In contrast to early industrial risks, nuclear, chemical, ecological and genetic risk (a) can be limited in terms of neither time nor place, (b) are not accountable according to the established rules of causality, blame and liability, and (c) cannot be compensated for or insured against.[28]

In the global risk society, no one any longer knows with certainty the extent of the risks we face through our collective technologies and innovations. Science now fails us, with conflicting reports, contradictory assessments and wide variance in risk calculations. Faith in the risk technocrats evaporates, the hegemony of experts dissolves and risk assessment becomes no more than a political game that advances sectional interests. The introduction of genetically modified food products in Western Europe, for example, have been mostly rejected by consumers not because of adverse findings by scientists in terms of

[27] Ulrich Beck (1992), <u>op.cit</u>, pp.100-101.
[28] Ulrich Beck (1999), <u>op.cit</u>., pp.76-77. See also <u>ibid</u>., p. 102.

prospective risks to human health, but because a wide spectrum of the population rejects the sanctity of the advice issued by risk experts who are seen as influenced by big agro-business. Consumers now suspect the limited horizon of understanding that "experts" have about the unintended consequences of complex technologies and their risk externalities. The "social compact" of risk society thus breaks down under reflexive modernization.

Penultimatly, Beck's global risk society is a rather depressing one, increasingly dangerous and altogether beyond meaningful control. Certainty and knowledge appear to breakdown, and the risk society seems more and more to engulf us all in a kind of cultural mindset of increasing fears, phobias, hyper-risks, and the possibility of severe scientifically induced catastrophe.

> Against the background of this growing unawareness and non-knowledge in the wake of the modernization of knowledge, the question of deciding in a context of uncertainty arises in a radical way. If we can not know the effects of industrial research, action and production—as is already generally the case in the fields of genetic engineering and human genetics—if neither the optimism of the protagonists nor the pessimism of their critics is based on certain knowledge, then is their a green or red light for techno-industrial development and mass utilization?[29]

For Beck, the consequence of this is the production of a kind of "organized irresponsibility" with expert division, contradiction and the limits of scientific knowledge paralyzing political responses to these emerging threats and risks. Political institutions are left again with a distributive matrix, but this time not delimited by the problem of wealth distribution and institutional legitimacy, but risk distribution.

[29] Ulrich Beck (2000b), op.cit., p.217.

In advanced modernity the social production of wealth is systematically accompanied by the social production of risks. Accordingly, the problems and conflicts relating to distribution in a society of scarcity overlap with the problems and conflicts that arise from the production, definition and distribution of techno-scientifically produced risks.[30]

[30] Ulrich Beck (2000c), op.cit., p.19.

Figure 1.1 **The Changing Origins, Extensity and Controllability of Risk across Three Epochs**			
	Pre-Modernity	**Industrial Society (Modernity)**	**Risk Society (Reflexive Modernity)**
Risk Typology	***a*Decisional**	**Risk Calculus**	**Radicalized Risk**
Risk Originators	Natural hazards, dangers, and catastrophes (earthquakes, floods, droughts, famines, crop failures, pestilence, disease, self-injury, extreme weather occurrences)	Natural hazards associated with pre-modernity + risks at the workplace, industrial accidents, risk from the utilization / operation of technology and technology products	Artificial catastrophes, self imposed risks, risks are generated by the nature of social, political, economic organization or derived from the operation of techno-scientific technologies
Risk / Hazard as a function of individual decision	**NO** (Gods, Demons) De jure hazards as a result of natural events / disasters	**YES** Risk as a result of industrialization and the utilization of industrial processes and technology products (driving, flying, workplace injuries, machine accidents,	**NO** (collectively taken decisions concerning the adoption / development / application of technologies mostly imposed on individuals / society).

		sickness from consumption of industrial age products (food types). The decision to utilize / not utilize these products / technologies can most be exercise by individual choice	Individuals must navigate the risk environments of radicalized modernity with imperfect knowledge and with science and "experts" unable to control the risks created.
Scope of Destruction	People, cities, regions, countries, cultures	Limited by space, time, social boundaries, or political calculations; controllable through indemnity by insurance	Unlimited accidents; generative risks that often cannot be anticipated, intergenerational consequences;
Calculation of Destruction	Uncertain / act of god, seen as "fate", punishment, religious interpretation	Calculable uncertainty (through probability analysis), level of destruction / harm quantifiable and known; insurable,	Very small; likelihood level of destruction infinite; no calculation possible; outcomes unknowable; outcomes not quantifiable; legal determination of

		compensation possible; blame attribution available; legal determination of liability possible	responsibility not possible; no legal determination of liability available; non-insurable; compensation not available
Responsibility	Fate, supernatural being, or ascribed to acts of god / demons; hazard ascription through superstition / religious conviction, supernaturalism	Rules of assignment through political / market institutions/ legal apparatus	Yes and No: "Organized Irresponsibility" and incapacity of political institutions to respond to reflexive modernity's risks

Source: Adapted from Drik Matten (2004), "The Impact of the Risk Society Thesis on Environmental Politics and Management in a Globalizing Economy—Principles, Proficiency, Perspectives," Journal of Risk Research, 7(4), p.380.

Assessing the World Risk Society Thesis

The popularity of Beck's work is in part explained by its timing. Beck could not have foreseen that the publication of his first work on world risk society in May 1986 would coincide with a catastrophe of monumental proportions; the explosion of the nuclear power plant at Chernobyl, Ukraine on April 25-26. Beck's concerns about reflexive modernity, his fears about the limits of science and technology and of the ability of human beings to control the consequences of the technologies they invented, were all amply demonstrated when the number four reactor at Chernobyl suffered two fatal explosions allowing deadly radiation (30 to 40 times the radioactivity released by the atomic bombs over Hiroshima and Nagasaki) to escape into the atmosphere. In the days following the explosion the sight of men willingly sacrificing their lives as they were deployed by helicopter to crudely dump soil and concrete on the reactor in the hope of plugging any further radiation leakages, only underscored the inability of science to meaningfully respond to the crisis it had unleashed. There was no crisis management, no response plan, no containment strategy other than to close down the facility, encase it in concrete, evacuate millions of people, seal off thousands of hectares of land and create a 30km radius no-go zone around the reactor later extended to a 4,300 square kilometer exclusion zone.[31] World risk society had, it seemed, arrived with vengeance.

Yet, despite the timely publication of Beck's work and its resonance with the Chernobyl disaster, the broader contours of his thesis remain problematic and have attracted rigorous debate. Much of this has focused on the way Beck conceives of risk but also the way he explains the process of individualization and globalization as antithetical to the logic of industrial modernity, the nation-state and state-based mechanisms for risk control. Indeed, much of Beck's thesis rests on his observations about globalization and what Beck sees as its negative effects upon state autonomy and institutional capacity. These, he believes, are challenged by complex interdependence, the globalization of markets, heightened

[31] Uranium Information Centre, Melbourne, Australia < http://www.uic.com.au/nip22.h> accessed on September 7, 2004. Dirk Matten (2004), "The Risk Society Thesis in Environmental Politics and Management—A Global Perspective," Journal of Risk Research, 7(4), June, pp.371-372.

connectivity in media and opinion formation, capital mobility, as well as the advent of supranationalism. The leading patterns of political organization that, since the Peace of Westphalia in 1648, have governed society in terms of its spatial-political and economic configuration, for Beck are now eroded by increasing amounts of activity (economic and political) that occur between states and by processes that are not state bound. The outcome for Beck is the transition from a Westphalian based system of governance to a post-Westphalian system, where the bounds of the state and its capacity to effectively regulate and control all manner of processes, risks and externalities, is fatally compromised. States surrender parts of their sovereignty, not willingly but surreptitiously, through cultural shifts, economics processes that by-pass state regulatory regimes and political processes that ensnare states into complex regimes and transnational regulatory governance structures.[32] The epicenter of society moves from a purely national setting to a world-wide community. Lorraine Eden and Stefanie Lenway capture the essence of this thesis when they note:

> If we visualize the world of the 1970s and 1980s as a chessboard, then the immoveable blocks were the national boundaries and trade walls behind which governments, firms and the citizens found shelter. Protected by politically made walls, countries could maintain their own cultures, traditions and ways of live, as well as their own choice of governance modes.[33]

For Eden and Lenway, however, globalization and the spate of neo-liberal policy that emerged during the 1980s, have removed or "at least significantly reduced the impact of these immovable blocks between economies."[34] In the process, the post-Westphalian system is born (see Figure 1.2).

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[32] Dirk Matten (2004), op.cit., p.390.
[33] Lorrain Eden and Stefanie Lenway (2001), "Introduction to the Symposium Multinationals: The Janus face of Globalization," Journal of International Business Studies, 32(3), p.384.
[34] ibid.

Figure 1.2 **Beck and Mainstream Globalization Theory:** **Effects of Globalization on the Westphalian System**		
	Westphalian System	**Post-Westphalian System**
Constitution of Society	Contained in nation-state / concentrated / bordered	Evolves into World Society / diffuse / porous
Location of Political Power	Monopoly held by national governments	Polopoly of governmental, domestic non-governmental and international actors (commercial actors, lobby groups, NGOs, professional bodies, state based institutions, etc).
Level of Regulation	Most recently decreasing as a result of neo-liberal ideational shifts / can be reflexive and is contingent on political-ideational norms in society	Increasing through supranational regulations /rapid emergence of international regime formation / emergence of formalized regimes (WTO, IMF, NAFTA, EU, etc)
Democratic Control of Political Power	High	Low

Source: Adapted from Dirk Mattern (2004), "The Impact of the Risk Society Thesis on Environmental Politics and management in a Globalizing Economy—Principles, Proficiency Perspectives," Journal of Risk Research, 7(4), p.390.

Beck's reading of globalization is a popular and widely held one; indeed it has come to comprise the rationale for many in the anti-globalization protest movements currently active around the globe today. But what is the basis for the assumptions about the effects of globalization on the nation-state and the Westphalian system? If correct, we should be able to discern empirical variance and significant changes in, for example, the spread and distribution of wealth, foreign direct investment (FDI), the extensity of MNE location, perhaps increasing state failure as globalization robs the state of its economic base and produces a fiscal crisis of the state. If, as Beck suggests, the state is now downloading onto its citizens increasing burdens; offloading its welfare obligations as it shrinks from a dwindling tax base due to forced competition to reduce taxes and increase its attractiveness to highly mobile capital, then we should be able to track these changes and observe absolute reductions in government revenues and smaller government.

An examination of disparate empirical sources, however, reveals little to support Beck's thesis. First, there appears no disruption to, or, indeed, evidence of declining government tax receipts across a wide selection of OECD nations. So too, government spending has experienced an almost uni-directional upward trend line since 1960, precisely when the effects of globalization by Beck's account begun to impact the international economy (see Table 1.1). As a percent of GDP, for example, government spending has increased from 32.2% in Britain in 1960 to 45.5% in 2005; in Canada from 28.6% to 39.3%; in Italy from 30.1% to 48.2%; and in the United States from 26.8% to 36.6%.

Tax revenues have similarly shown significant upward trends contrary to the assertions of Beck. As a proportion of GDP, tax revenues increased in Britain from 28.5% of GDP in 1960 compared to 36.5% in 2005; in Canada from 23.8% to 33.4%; in Italy from 34.4% to 41.0%; and even in the United States — an historically low taxing state — increasing moderately from 26.5% in 1960 to 27.3% in 2005. Rather than a fiscal crisis of the state or the retreat of the state in contemporary economic life, in OECD countries the state continues to be an integral part of the tapestry of modern economies.

Table 1.1										
Government Spending and Tax Revenue as a Percent of GDP: 1960-2005										
Selected OECD States										
	Government Spending					**Tax Revenue**				
	1960	**1980**	**1998**	**2001**	**2005**	**1960[a]**	**1980**	**1997**	**2000**	**2005**
Australia	21.2	31.4	32.9	37.2[e]	34.4	22.4	28.4	30.3	31.5	30.9
Britain	32.2	43.0	40.2	40.2	45.5	28.5	35.1	35.3	37.4	36.5
Canada	28.6	38.8	42.1	42.3	39.3	23.8	32.0	36.8[c]	35.8	33.4
France	24.6	46.1	54.3	52.5	53.8	N/A	41.7	46.1	45.3	44.1
Germany	32.4[b]	47.9[b]	46.9	48.3	46.7	31.3[b]	38.2[b]	37.5	37.9	34.8
Italy	30.1	42.1	49.1	48.5	48.2	34.4	30.4	44.9	42.0	41.0
Japan	17.5	32.0	36.9	38.0	38.1	18.2	25.4	28.4c	27.1	27.4
Spain	N/A	32.2	41.8	39.3	38.2	14.0	23.9	35.3	35.2	35.8
Sweden	31.0	60.1	60.8	57.2	56.6	27.2	48.8	53.3	54.2	50.7
U.S.	26.8	31.4	32.8	34.9	36.6	26.5	26.9	28.5c	29.6	27.3
Averages[d]	28.3	40.5	43.8	44.2	43.3	25.1	33.1	37.6	37.4	36.2
Notes: a = estimated; b = West Germany; c = 1996; d = unweighted；e = 2000;										

Source: OECD figures as quoted in Raymond Vernon (2001), "Big Business and National Governments: Reshaping the Compact in a Globalizing Economy," Journal of International Business Studies, 32(3), p.515; OECD in Figures 2003, 2006-2007 and 2007; *Revenue Statistics 1965-2006,* OECD.

The "hollowing out" of the welfare state thesis is also challenged by John Hobson, who notes "reports of the death of taxation and the welfare state remain greatly exaggerated."[35] Examining taxation policy in the OECD between 1965 and 1999, for example, Hobson finds that rather than a trending downwards of the tax burden there is, in fact, a clear trending upwards —— and not just for tax revenues but also for state expenditures (see Table 1.2). Indeed, as Hobson demonstrates, corporate tax rates in the OECD have actually trended at higher annual average increases than have government expenditures and aggregate tax burdens, with the average tax burdens applied specifically to capital increasing by more than 50% from 1960 to 1995-6 — the period typically identified with deepening and intensifying globalization. As Hobson notes, "what is striking in an era of intensifying capital mobility, is the degree to which these broad fiscal indicators have increased, thereby suggesting a broadly positive rather than a negative relationship between globalisation and state fiscal capacity . . . ": a finding diametrically opposite to the assertions of Beck and his characterization of globalization and its risk consequences for states and welfare societies.[36]

[35] John M. Hobson (2003), "Disappearing Taxes or the 'Race to the Middle'? Fiscal Policy in the OECD," in Linda Weiss (ed.), States in the Global Economy: Brining Domestic Institutions back In. Cambridge: Cambridge University Press, p.37.
[36] ibid., p.41.

Table 1.2 **Tax and Expenditure Burdens OECD 1965-1999**							
	1965-9	1970-4	1975-9	1980-4	1985-9	1990-4	1995-9
Aggregate Tax Burdens							
Average OECD	100	107	113	113	114	117	120
Average EU	100	106	114	118	119	122	125
Average Expenditure Burdens							
Average OECD	100	107	120	122	121	126	123
Average EU	100	106	121	125	126	129	128
Average Tax Burdens on Capital							
Average OECD	100	117	143	141	148	148	152
Average Corporate Income Tax Burden							
Average OECD	100	105	109	116	126	117	131

Source: Adapted from John M. Hobson (2003), "Disappearing Taxes or the 'Race to the Middle'? Fiscal Policy in the OECD," in Linda Weiss (ed.), States in the Global Economy: Bringing Domestic Institutions back In. Cambridge: Cambridge University Press, p.40, 44, 46; OECD Revenue Statistics (Paris, OECD).

The fiscal crisis of the state has thus not materialized, nor does it display any evidence of doing so in the near future.[37] While, of course, the figures produced in Tables 1.1 and 1.2 are not indicative of discretionary government spending on welfare entitlements par se -- of which there certainly might be evidence of reduced expenditures -- what they do suggest, however, is that if this is the case it is not due to the forces of globalization nor a compromised revenue base but ideational change among domestic constituencies and the growth of new right doctrines about the need for welfare reform and or the desirability of welfare support. This is an entirely different set of issues, with none related to induced fiscal austerity because of declining tax bases through capital mobility or globalization.

As for the policy autonomy of nation-states being straight-jacketed by globalizing forces that demand conversion to neo-liberal policy agendas, fiscal conservativism and laissez-faire systems, there is little evidence of the creation of a string of homogenous nation-states. Linda Weiss, for example, when examining policy autonomy and discretionary state maneuverability in emerging economies in Asia (Taiwan, South Korea) as well as developed states (Japan, Germany and Sweden) discovered greater latitude for state discretion than might be anticipated by mainstream globalization theorists like Beck. Rather than increasing institutional conformity between states or the loss of discretionary institutional capacity, divergence continues to be the order of the day. Indeed, Weiss' findings indicate that what she terms the "transformatory capacity" of the state remains robust, with states able to broker networks of domestic actors and innovate state policy to cultivate domestic industry transformation and engineer internationally competitive industry segments. Rather than globalization being a top-down imposed process as traditional globalization theorists suggest, Weiss demonstrates the ways in which states and domestic policy innovation launch domestic actors into the international area —— effectively becoming catalysts of globalization.[38] By acting as "midwives," state institutions in Japan, Sweden, Germany, South Korea and Taiwan, Weiss demonstrates,

[37] Beck, of course, is not alone in characterizing the emergence of a fiscal crisis for modern states. Before him, James O'Connor famously postulated the decline of the welfare state and a crippling of its functions and reach. See James O'Connor (1973), The Fiscal Crisis of the State. New York: St. Martin's Press.
[38] Linda Weiss (1998), The Myth of the Powerless State: Governing the Economy in a Global Era. Cambridge: Polity Press.

but also in Australia, the United States, Britain and Singapore, have effectively launched overseas investment, regional relocation and global competitiveness. Globalization, in others words, is a process utilized by states; in effect an enabling strategy to mold policy goals and effect nationally desirable developmental outcomes. Rather than straight-jacket nation-states, state-societal relations powerfully shape economic outcomes and harness globalization. For Weiss, far from a powerless state or the decline of the state, states remain powerful instrumentalities with strong institutional capacity and large variance in terms of institutional characteristics.[39] Globalization, in short, is what states make of it.

These findings contrast sharply with Beck's depiction of globalization and challenge strongly his correlating the effects of globalization with increased risk, especially in terms of its consequences for the state and its welfare reach. Beck, for example, tends to over dramatize globalization, particularly in terms of capital mobility and the suggestion that capital essentially deserts the state producing a systemic fiscal crisis. If we look at FDI patterns in terms of its origins and destination, however, we observe very little variance from historical patterns. As Table 1.3 demonstrates, the triad regions of Western Europe, North America and Japan continue to account for the vast majority of FDI receipts — as they have done historically. In all, some 75% of the total accumulated stock of FDI and 60% of FDI flows in 1990 were concentrated in just three regions, North America, Western Europe and Japan. Likewise, despite the ebbs and flows of economic activity, particularly a decade of deflation in Japan and accelerated economic growth in the United States which soaked up vast amounts of global private sector liquidity throughout the 1990s, the triad economic regions of North America, Western Europe and Japan continue to account for the great bulk of global FDI flows, serving as both the source and destination of capital investment. Globalization, in other words, has not changed this pattern other than to increase its volumes. Capital might have become more mobile but it has not gone elsewhere and become more global or led to outright divestiture in the case of the triad economies.

[39] ibid. See also Linda Weiss (2003), States in the Global Economy: Brining Domestic Institutions Back In. Cambridge: Cambridge University Press. See also Robert Wade (2004), Governing the Market: Economic Theory and the Role of the State in East Asian Industrialization. Princeton, New Jersey: Princeton University Press.

Table 1.3:
Triad Foreign Direct Investment Flows: 1990-2005
US$ Millions

Table 1.3: Triad Foreign Direct Investment Flows: 1990-2005 US$ Millions									
Outward FDI Flows from	**Inward FDI Flows to**	**1990**	**1995**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
US	All Countries	430,521	699,015	1,316,247	1,460,352	1,616,548	1,769,613	2,051,204	2,069,983
All Countries	US	394,911		1,256,867			1,395,159	1,520,729	1,635,291
US	Canada	69,508	83,498	132,472	152,601	166,473	187,953	212,829	234,831
Canada	US	29,544		114,309			95,707	125,503	144,033
US	Europe	214,739	344,596	687,320	771,936	859,378	976,889	1,104,886	1,059,443
Europe	US	247,320		887,014			1,001,237	1,066,908	1,143,614
US	UK	72,707	106,332	230,762	228,230	247,952	277,246	312,156	323,796
UK	US	98,676		277,613			217,841	251,422	282,457
US	Japan	22,599	37,309	57,091	55,651	66,468	57,794	68,071	75,491
Japan	US	83,091		159,690			157,176	175,728	190,279
Canada	UK		16,412	35,170	39,682	40,749	43,902	44,330	48,893
UK	Canada		14,097	23,955	26,913	27,552	26,002	26,298	30,026
Canada	Other EU Countries		18,106	39,998	42,783	49,515	63,251	77,243	70,321
Other EU Countries	Canada		21,778	72,008	65,144	66,687	76,156	75,133	74,394
Canada	Japan		2,739	5,613	7,026	9,708	8,444	8,367	6,049
Japan	Canada		6,987	8,041	7,864	9,305	9,892	10,058	10,520
EU	Japan			8	32	51	83	101	93
Japan	EU			30	54	62	90	109	106

US Department of Commerce, Economics & Statistics Administration, Statistical Abstract of the United States: 2007, 126 Edition, p.797 & p. 800; Statistics Canada, Canada's International Investment Position, Third Quarter 2007, p. 21 & p. 26; Eurostat, European Union Foreign Direct Investment Yearbook 2007 - Data 2001-2005, 2007 Edition, p. 28 & p. 44; Eurostat, Key Figures on Europe Statistical Pocketbook 2006 - Data 1999-2006, p. 35 & p. 37.

Table 1.4 Regional Distribution of Global FDI Flows: 1995-1998								
Region	Inflows %of World Total				Outflows % of World Total			
	1995	1996	1997	1998	1995	1996	1997	1998
Developed Countries	**63.4**	**58.8**	**58.9**	**71.5**	**85.3**	**84.2**	**85.6**	**91.6**
Western Europe	37.0	32.1	29.1	36.9	48.9	53.7	50.6	62.6
European Union	35.1	30.4	27.2	35.7	44.7	47.9	46.0	59.5
Other European	1.8	1.8	1.9	1.2	4.2	5.8	4.6	3.1
United States	17.9	21.3	23.5	30.0	25.7	19.7	23.1	20.5
Japan	-	0.1	0.7	0.5	6.3	6.2	5.5	3.7
Other Developed Countries	8.5	5.3	5.6	4.1	4.4	4.6	6.4	4.9
Developing Countries	**32.3**	**37.7**	**37.2**	**25.8**	**14.5**	**15.5**	**13.7**	**8.1**
Africa	1.3	1.6	1.6	1.2	0.1	-	0.3	0.1
Latin America and the Caribbean	10.0	12.9	14.7	11.1	2.1	1.9	3.3	2.4
Developing Europe	0.1	0.3	0.3	0.3	-	-	0.1	-
Asia	20.7	22.9	20.6	13.2	12.3	13.6	10.0	5.6

West Asia	-0.1	0.2	1.0	0.7	-0.2	0.6	0.4	0.3
Central Asia	0.4	0.6	0.7	0.5	-	-	-	-
South, East and Southeast Asia	20.4	22.1	18.9	12.0	12.5	13.0	9.6	5.3
The Pacific	.02	0.1	-	-	-	-	-	-
Central and Eastern Europe	4.3	3.5	4.0	2.7	0.1	0.3	0.7	0,3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Henry Wai-chung Yeung and Peter Dicken (2000), "Economic Globalisation and the Tropical World in the New Millennium: An Introduction," Singapore Journal of Tropical Geography, 21(3), p.227.

Henry Wai-chung Yeung and Peter Dicken, among others, confirm this trend. Rather than creating increased risk vulnerabilities because of capital mobility and its dispersal to cost efficient heavens in the far flung corners of the earth, globalization in fact displays a remarkable propensity to concentrate capital flows in developed economies (see Tables 1.3 & 1.4) -- itself creating a crisis for developing economies otherwise eager to access capital and kick start the developmental process. Africa, for example, continues to attract less than 3% of global capital flows, while Latin America and the Caribbean are stalled at around 10 to 15% of global capital flows. Moreover, while about a third of FDI capital inflows find their way to "developing countries" as a whole, their dispersal tends to be predominately to Asia (around 20%), while in Asia itself 90% of these flows concentrate in just ten Asian countries, with the vast majority heading for China, Singapore and Hong Kong. [40] Highly mobile capital otherwise so often invoked as the nemesis of globalization, in fact, then, proves less mobile in terms of geographic spread than Beck's characterization of globalization otherwise suggests.

More recently, as Table 1.5 indicates, the concentration of FDI flows into the triad economies, while moderating in terms of the absolute dominance of the United States (due partly to the saturation of equity markets after massive global inflows throughout the 1990s), still display remarkable continuity in terms of the historical norm. Developing regions, by contrast, despite a decade of liberalization of their investment regimes, continue to display relative paucity in the amount of global capital they are able to attract. Africa, for example, continues to fluctuate around insignificant levels, from 1999 to 2006 attracting not more than around 3% of inflows of global FDI; Latin American returning to its recent historical average and falling away to 6.4% of inflows of global FDI in 2006; and South, East and Southeast Asia showing a moderate trend upwards from 10% of inflows of global FDI in 1999 to 15.3% in 2006 ─ this off the back of two of Asia's economic giants, China and India.

[40] See Henry Wai-chung Yeung and Peter Dicken (2000), "Economic Globalisation and the Tropical World in the New Millennium: An Introduction," Singapore Journal of Tropical Geography, 21(3), pp.225-232. See also Darryl S.L. Jarvis (2004), The Changing Economic Environment in Southeast Asia: ASEAN, Chin and the Prospects for Enhanced Cooperation—an Overview. Ministry of Finance, Japan and the Research Institute for Asia and the Pacific, University of Sydney, Australia.

The pattern of global FDI flows thus continues to be dominated by developed countries and, specifically, the triad economies, both in terms of being the major recipients and sources of global FDI. Despite common perceptions of an increasingly disparate flow of capital to ever increasing corners of the world, the tendency appears to be for FDI and private capital to remain close to historically developed markets. If anything, globalization has been a filter that has enabled highly developed markets to more efficiently capture capital.

Table 1.5: Regional Distribution of Global FDI Flows: 1999-2006

Region	FDI INFLOWS: % of World Total							FDI OUTFLOWS: % of World Total						
	1999	2000	2001	2002	2003	2005	2006	1999	2000	2001	2002	2003	2005	2006
Developed World	76.2	79.8	69.9	72.2	65.5	62.4	65.7	92.9	91.3	91.2	91.8	93.0	84.4	84.1
Western Europe	46	50.2	45.1	56.0	55.4	N/A	N/A	69.9	72.4	62	61.1	57.2	N/A	M/A
European Union	44.1	48.4	43.7	55.1	52.7	51.4	40.7	68.1	67.9	59.5	58.9	55	72.7	47.1
Other European	1.9	1.9	1.4	0.9	2.7	0.9	2.7	3.6	4.5	2.5	2.2	2.2	9.8	7.9
United States	26	22.6	19.5	9.3	5.3	10.7	13.4	19.2	12	17.3	19.3	2.5	-3.3	17.8
Japan	1.2	0.6	0.8	1.4	1.1	0.3	-0.5	2.1	2.7	5.3	5.4	4.7	5.5	4.1
Other Developed Countries	3.0	6.4	4.5	5.5	3.6	-0.9	9.4	1.8	4.2	6.6	5.9	6.3	-0.3	7.2
Developing Countries	21.3	18.2	26.9	23.2	30.7	33.2	29.0	6.9	8.3	8.3	7.4	5.8	13.8	14.3
Africa	1.1	0.6	2.4	1.7	2.7	3.1	2.7	0.2	0.1	-0.4	0.02	0.2	0.3	0.7
Latin America and the Caribbean	9.9	7	10.8	7.6	8.9	8.0	6.4	2.9	1.2	1.7	1	1.7	4.3	4.0
Asia	10.4	10.5	13.7	13.9	19.1	22.1	19.9	3.8	7.1	7.0	6.4	3.7	6.4	9.6
West Asia	0.09	0.1	0.7	0.5	0.7	4.4	4.6	0.2	0.3	0.7	0.4	-0.1	1.6	1.2
Central Asia	0.2	0.1	0.4	0.7	1.1	1.4	1.1	0.03	0	0.02	0.1	0.1	0.2	0.0
South, East and Southeast Asia	10	10.3	12.5	12.7	17.3	17.7	15.3	3.6	6.7	6.2	5.8	3.8	7.7	8.5
The Pacific	0.03	0.01	0.01	0.01	0.03	0.04	0.03	-0	0.01	0.01	--	0.01	0.012	0.000
Central and Eastern Europe	2.4	2	3.2	4.6	3.7	4.4	5.31	0.2	0.3	0.5	0.8	1.1	1.7	1.5

Source: United Nations Conference on Trade and Development (UNTAD), World Investment Report 2004: The Shift Towards Services. United Nations, Geneva; 2005-2006 figures are calculated based on data from United Nations Conference on Trade and Development (UNCTAD), World Investment Report 2007, pp. 251-254.

Similarly, if we look at the capitalization of stock markets around the world indicative of the enormous growth in flows of portfolio foreign investment, we might expect to observe considerable leakage from triad bourses and growth in the capitalization of bourses in emerging economies consistent with mainstream globalization theory. Yet, no dramatic structural change is apparent, with the circulation of international portfolio investment predominantly confined to developed Western states (see Table 1.6).[41] Collectively, for example, the capitalization of the United States and Developed Europe's stock markets accounted for 65.7% of global stock market capitalization in 2007. Broken down, the United States still dominates, accounting for 36.3% of global stock market capitalization. While, to be sure, this is down from a high point of 48.5% in 2001, the long term trend average remains stable, with 2001 representing the culmination of a decade long frenzy of global mergers and acquisitions predominantly realized through US bourses.[42] Further, Developed Europe's share of global stock market capitalization has remained relatively static at around 30%.

The changes in the percentage total of global stock market capitalization realized in Latin America from 1.4% in 2001 to 6.1% in 2007 and in non-Japan Asia from 5.3% in 2001 to 15.2% in 2007, might at first be taken as evidence of structural transformation in the location of portfolio capital in the global economy. In reality, however, it represents organic growth in domestic transactions volumes rather than capital flight and divestment from US and European bourses. Indeed, what is significant about these figures is the enormous catchment and concentration of capital in United States and European bourses. In 1980, for example, total global stock market capitalization stood at approximately US$3.8 trillion dollars. By 2005 this had grown to nearly US$59 trillion dollars, again with the vast bulk (65.7%) captured in the US and Developed Europe. In absolute dollar terms, the United States, Developed Europe and Japan have benefited most from these

[41] Further evidence supporting the limited impact of globalization of capital location is provided by Alan Rugman, whose analysis of multinational enterprises and their location and investment patters, confirms the process of depending regionalization rather than globalization. See Alan Rugman and Alain Verbeke (2004), "A Perspective on regional and Global Strategies of Multinational Enterprises," Journal of International Business Studies, 35, pp.3-18.

[42] William L. Megginson (2005), The Financial Economics of Privatization. Oxford University Press, pp.246-248.

rocketing upward valuations. Indeed, outside a few East Asian states (Hong Kong [SAR], Singapore, China, a handful of Latin American States dominated by Mexico and Brazil, and in South Asia, in India), the rest of the world's share of stock market capitalization has remained little changed. Contrary to the notion of capital flight or outright portfolio divestment from Western states, the sheer growth in the value of stock market capitalization has represented substantial upward valuations to US and European bourses.[43]

These same proportionalities obtain in the case of the percentage distribution of global market capitalization of listed companies. One might expect that capital mobility and the mobility of MNEs to locate to jurisdictions that offer more competitive tax rates and or regulatory arbitrage over various social, environmental and regulatory standards, would have seen disproportionate growth in MNEs from developing countries and or structural relocation of Western MNEs to emerging economies. At the very least, one might reasonably assume that if Beck's thesis holds, the nominal return on capital available to Western MNEs might have been diminished relative to counterparts in emerging economies, and or that that value and market capitalization of Western companies might have been impaired relative to MNEs in emerging economies.

As Table 1.7 reveals, however, the market capitalization of listed companies for the period 2000-2005 displays little evidence of structural reorientation away from core Western economies. In Japan, the EU, indeed even in East Asia and the Pacific, the market capitalization of listed companies displays remarkable stability in terms of the percentage of the global total they represent. In Japan, for example, despite a decade of deflation and anemic domestic growth, Japan's global share of market capitalization of listed companies continues to hover around 10%. East Asia too displays relative stasis at around 3% as does Latin America and the Caribbean at around 2-3%. By contrast, in South Asia there is evidence of growth in India's world share of market capitalization of listed companies from 0.49% in 2000 to 1.39% in 2005. However, while significant in the

[43] Global Financial Data < www.globalfindata.com>

case of India's emerging economic growth and emblematic of the rapidly increasing value of Indian listed companies, again there is little evidence of structural change in the locus of global market value of the worlds largest corporations that Beck's thesis might suggest. Indeed, the only significant movement in the indices is the recent decline in the percentage of global total market capitalization enjoyed by US companies, down from a high of 49.68% in 2001 (off the back of a spate of global mergers and acquisitions) to a low of 36.95% in 2005. Arguably, the highpoint in 2001 is an artificial figure but, this aside, at nearly 40% of the global total market capitalization, American companies continue to prove the most significant players among the ranks of the world's largest corporations.

Table 1.6		
Capitalization of World Stock Markets (Percentage of global total)		
Country / Region	**2001**	**2007**
United States	48.5	36.3
Developed Europe	31.3	29.4
Japan	9.7	8.3
Rest of Asia	5.3	15.2
Latin America	1.4	6.1
Rest of World	3.8	4.7

Source: Roger Lee (2003), "The Marginalization of Everywhere: Emerging Geographies of Emerging Economies," in Jamie Peck and Henery Wai-chung Yeung (eds.), Remaking the Global Economy: Economic Geographical Perspectives. Sage, p.73; Financial Times, February 24, 2001

Table 1.7

Market Capitalization of Listed Companies: 2000-2005

	Percentage of Global Total					
Country / Region	2000	2001	2002	2003	204	2005
United States	46.92	49.68	47.25	43.76	41.73	38.95
Japan	9.81	8.07	9.05	9.33	9.40	10.85
EU	16.86	15.47	14.92	15.21	17.42	14.81
East Asia & Pacific	2.42	2.60	2.91	3.22	2.69	2.78
South Asia	0.49	0.42	0.62	0.92	1.09	1.39
Latin America & Caribbean	1.95	2.20	1.84	1.69	1.96	2.41
Rest of the World	21.55	21.54	23.42	25.88	25.72	28.80

Source: World Development Indicators (2007), World Bank, Washington, D.C.

The point in highlighting these examples, of course, is to demonstrate that the beneficiaries of international capital flows continue to be overwhelmingly developed Western states and Japan; and that the locus of economic power continues to be predominantly dispersed among Western economies. To be sure, this suggests the internationalization of these economies and a structural transition in their economic composition, but does not suggest capital flight or capital scarcity and thus necessarily increased risk and vulnerability for industrial society as Beck insists. The process of financial liberalization and capital mobility has thus been considerably more nuanced than Beck appreciates. Rather than an imposed condition foisted upon states, globalization, at least in the sense of capital mobility, has been the result of deliberative state actions through capital account liberalization; that is, state sponsored initiatives generated by domestic actors.[44] The causality of the globalization process is thus opposite that suggested by Beck and mainstream globalization theorists. This might explain why many states have actually benefited from capital account liberalization, developing highly successful financial service sectors and employment growth.[45] At the very least, it demonstrates ample state capacity for adaptability, with most developed states structurally adjusting their economic composition to profit from the evolving forms of international capital circulation.[46]

Finally, and perhaps most tellingly, Beck's much feared rise of reflexive modernity through the process of radicalized globalization does not appear to have impacted the durability of the nation-state that, for all its weakness and supposed declining utility,

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[44] The transition from managed exchange rates and capital controls indicative of the Bretton Woods era to financial liberalization is addressed by Eric Helleiner (1994), States and the Reemergence of Global Finance: From Bretton Woods to the 1990s. Ithaca, New York: Cornell University Press.

[45] Jesse Poon, for example, analyses the evolution of international financial centres since the 1980s, demonstrating how new financial service centres have emerged and the financial extensity between various centres that now exists. See Jessie Poon (2003), Hierarchical Tendencies of Capital Markets Among International Financial Centers, Growth and Change, 34(2), Spring, p.135-156.

[46] To be fair, there are a vast army of social scientists other than Beck who propound a similar thesis concerning globalization and its consequences for the nation-state—although not in relation to the risk society. Much the same criticisms can thus be level at these theorists. See, for example Philip Bobbitt (2002), The Shield of Achilles: War, Peace and the Course of History. Penguin. See especially chapter ten and his thesis of the emergence of the "market-state" which, much like Beck's, suggest the nation-state is now failing in its traditional role as protector of its citizens in terms of economic security, nation-cultural, political autonomy, etc.

appears to be enjoying somewhat of a renaissance. At the very time when globalization was accelerating judged by increased flows of foreign direct investment and international trade, and at the same time as the state, according to Beck's account, was experiencing diminishing juridical authority through growing permeability and loss of political control, the number of nation-states grew significantly; from 127 in 1970 to 191 in 2004. This, to say the least, is an oddity and suggests that rather than experiencing a transition to a post-Westphalian order as postulated by Beck, we are in fact experiencing a deepening of the Westphalian system — evidence of the continuing utility of the nation-state as a medium for economic and security protection.[47] As Louise Pauly notes:

> If sovereignty is defined as policy autonomy, then increased international capital mobility seems necessarily to imply a loss of sovereignty. This old chestnut ignores, however, both an extensive literature on the evolution of the legal concept of sovereignty and a generation of research on the political trade-offs entailed by international economic interdependence. Furthermore, it downplays the stark historical lesson of 1914: Under conditions of crisis, the locus of ultimate political authority in the modem age - the state - is laid bare. Especially through its effects on domestic politics, capital mobility constrains states, but not in an absolute sense. If a crisis increases their willingness to bear the consequences, states can still defy markets. More broadly, the abrogation of the emergent regime of international capital mobility by the collectivity of states may be unlikely and undesirable, but it is certainly not inconceivable. As long as that remains the case, states retain their sovereignty. Nevertheless, in practical terms, it is undeniable that most states today do confront heightened pressures on their economic policies as a result of more freely flowing capital. The phenomenon itself, however, is not new. What is new is the widespread perception that all states and societies are now similarly affected.[48]

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[47] Heidi H. Hobbs and Dario V. Moreno (2004), "Simulating Globalization: Oil in Chad," International Studies Perspectives, 5(3), August, p. 231.
[48] Louise W. Pauly (1995), "Capital Mobility, State Autonomy, and Political Legitimacy (Transcending National Boundaries)," Journal of International Affairs, 48(2), Winter, p.371.

Implications for Beck's Risk Society Thesis

Beck's use of globalization as one of the principle determinants of risk under reflexive modernity makes his characterization of globalization central to validating the risk society thesis. As we have seen, however, it fails many empirical tests with relatively crude postulations. There is little empirical evidence to support Beck's suggestion that the state is in retreat, that its fiscal base has been eroded, or its expenditure abilities somehow reduced. If anything, among OECD countries, the institutional reach of the state, its fiscal base and expenditure commitments have all increased commensurate with deepening globalization. Does this, then, invalidate Beck's world risk society thesis?

The answer to this question comes in many parts — much like Beck's thesis. As one of Beck's "five inter-related processes" that contribute to and generate increased risk, the extensity of globalization in terms of its dislocating impact upon the nation-state, its political authority and ability to provide welfare, has likely been overstated by Beck. While new historical precedents have been established through growing levels of interdependence, especially in terms of economic linkages (trade, finance, and investment), the suggestion that the state is withering away, crippled, circumvented, or that we are somehow transitioning toward a post-Westphalian system, is premature.

These observations, however, do not necessarily discount Beck's notion that individuals over the last few decades have been exposed to increasing personal vulnerabilities. Since the mid to late 1970s many OECD states have witnessed a repudiation of social-democratic forms of governance; a diminution of welfare entitlements combined with an increasing use of user-pays and fee-for-service systems in the provision of previously universally provided public goods (education, health, transportation, etc). Economic individualization has thus undoubtedly exposed some groups to greater vulnerabilities and reduced the level of equitable access in relation to health and educational services. Beck is right to suggest that the burden of these changes have not been shared equally. Indeed, the gulf between the rich and poor has been widening throughout the OECD, but not as

perhaps Beck wants to infer as a result of globalization impoverishing disadvantaged stratums of society, but rather as Timothy Smeeding notes "by raising incomes at the top of the income distribution [spectrum.]"[49] What remains problematic, however, is the extent to which this is singularly attributable to the ramifications of reflexive modernity and globalization. As Smeeding further notes:

> Notwithstanding . . . [the influence of globalization,] . . . domestic policies — labor market institutions, welfare policies, etc. — can act as a powerful countervailing force to market driven inequality. Even in a globalized world, the overall distribution of income in a country remains very much a consequence of the domestic political, institutional and economic choices made by those individual countries — both rich and middle income ones.[50]

Beck, it seems, is oblivious to this and to the spate of political-ideational changes that have championed the neo-liberal agenda —— incorrectly ascribing these to structural forces endemic to radicalized modernization. In point of fact, of course, it is entirely conceivable that, depending on the prevailing political climate and the constellation of political forces in the future, this agenda might be reversed, partially abandoned or modified. The rise of the risk society, at least as it relates to the individualization of risk through declining welfare provisions or progressive taxation systems and globalization, might thus not be as automatic or predetermined as Beck would like to suggest.

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[49] Timothy Smeeding (2002), Globalization, inequality and the Rich Countries of the G-20: Evidence from the Luxembourg Income Study Group (LIS). Luxembourg Income Study Working Paper No. 320 Maxwell School of Citizenship and Public Affairs, Syracuse University Syracuse, New York 13244-1020 <www.lisproject.org/publications/liswps/320.pdf>, p.28. The stratification in income distribution commonly assumed to result from globalization through growing income inequality is also questioned by Ramesh Mishra when comparing empirical evidence for Germany, Japan and Sweden. In Germany, for example, all income groups have experienced net gains in income levels since 1991. Wage and salary differentials remain low, with earnings from salaries rising by 10% since 1991 even as globalization ensued. What has contributed to increasing wealth inequality, however, has been the fact that returns from capital for this same period have risen by 40%. Again, the mechanism responsible for growing inequality in Germany stems not from a net loss to any one strata of society—all have gained, but from more rapid wealth appreciation via disproportionately higher returns on capital as opposed to salary increased. See, for example, Ramesh Mishra (1999), Globalization and the Welfare State. Cheltenham: Edward Elgar, p.82.
[50] ibid.

Equally, some of Beck's other "interrelated processes" also appear problematic. Beck's assertion that rising and endemic underemployment will usurp the distributive function necessary to the reproduction of industrial modernity and transpose greater risks and vulnerabilities onto a growing segment of society, does not appear empirically sustainable. To be sure, there has been a pronounced increase in the rate of casualized and flexible employment practices, but the wholesale offshore movement of jobs in a kind of "race to the bottom" globalization thesis is not entirely accurate. Job redundancy and the replacement of "old economy" industries, for example, while a feature of the latter part of the twentieth century and early part of the new millennium, has also been accompanied by job creation in the so-called new economy sectors (biotechnology, information technology, financial services, education, the service sector—hospitality and tourism industries, for example). Consequently, while any number of unemployed is too many, the fact that global unemployment stood at only 6.2% of the global workforce in 2003 according to the International Labour Organisation (ILO), fails to indicate the emergence of a structural employment crisis.[51] Indeed, this rate came off the back of a severe global economic slowdown (2000-2003), the war on terror and disruptions to the global hospitality, tourism and aviation industries and global panic associated with the outbreak of SARS in Asia. This rate, in other words, is cyclical not systemic and according to the ILO likely to trend downwards as global economic activity picks up between 2004-2007.[52]

What, then, might account for these premature assertions by Beck? The answer perhaps lies in contextualizing his writings. Beck formulated many of his observations and thesis amid a period of tumultuous change in Germany; first with the sea-change in the political landscape with the rise of the Greens and rapidly changing political affiliations in the 1980s; and, second, amid the tumultuous events surrounding the fall of the Berlin Wall and the problems of economic restructuring as a result of German reunification and post-

[51] International Labour Organization (2004), "Global unemployment remains at record levels in 2003 but annual ILO jobs report sees signs of recovery," Press Release, January 22. < http://www.ilo.org/public/english/bureau/inf/pr/2004/1.htm>.
[52] See, for example, the global employment outlook from the ILO. International Labour Office (2004), Global Employment Trends. January, Geneva: International Labour Organisation.

reunification economic adaptation. The latter, in particular, have posed continuing challenges for Germany, especially in terms of labor market integration, economic equalization and modernization of East German industry and infrastructure. Beck has undoubtedly been influenced by these events and the processes of accommodation and dislocation that naturally accompany them. At worst, Beck might thus be accused of a kind of presentism; a preoccupation with proximate current events and an assumption of both their ubiquity and universal validity as agents of a new risk civilization. [53] Robert Dingwall, for example, goes so far as to describe Risk Society as "a profoundly German book." As he notes, "most of the citations are to other German authors, the acknowledgements are to German colleagues and the books drafting 'in the open hill above Starnberger See' (p.15) is lovingly recorded."[54] This is not, Dingwall insists, a xenophobic criticism but reflective of the milieu in which Beck's thoughts were influenced and the context in which his thesis has evolved —— perhaps making Beck's concerns more local and parochial than he would care to admit. The point is a broader one, however, apart from the pertinence of universalizing these views onto a global stage, Anthony Elliott, for example, asks whether Beck's observations overstate and overemphasize "the phenomena and relevance of risk;" perhaps over dramatize current uncertainties and reifies them historically?[55] How, for example, do these phenomena stack up with previous ruptures, uncertainties and risks? Are we really living in a unique historical epoch where the calculus of risk is so extreme that it distinguishes itself from all previous epochs? As Brian Turner notes:

> [A] serious criticism of Beck's arguments would be to suggest that risk has not changed so profoundly and significantly over the last three centuries. For example, were the epidemics of syphilis and bubonic plague in earlier periods any different from the modern environment illnesses to which Beck draws our attention? That is, do Beck's criteria of risk, such as their impersonal and unobservable nature,

[53] The notion of presentism is advanced by Robert Cox. See Robert W. Cox (1987), Production, Power and World Order: Social Forces in the Making of History. New York: Columbia University Press.
[54] The Starnberger See is a large lake south of Munich. See Robert Dingwall (1999), "Risk Society: The Cult Theory of the Millennium?" Social Policy and Administration, 33(4), p.475.
[55] Anthony Elliott (2002), "Beck's Sociology of Risk: A Critical Assessment," Sociology, 36(2), p.299.

> really stand up to historical scrutiny? The devastating plagues of earlier centuries were certainly global, democratic and general. Peasants and aristocrats died equally horrible deaths. In addition, with the spread of capitalist colonialism, it is clearly the case that in previous centuries many aboriginal peoples such as those of North America and Australia were engulfed by environmental, medical and political catastrophes which wiped out entire populations. If we take a broader view of the notion of risk as entailing at least a strong cultural element whereby risk is seen to be a necessary part of the human condition, then we could argue that the profound uncertainties about life, which occasionally overwhelmed earlier civilizations, were not unlike the anxieties of our own fin-de-siècle civilizations.[56]

This goes to the core of Beck's thesis and questions its basic assumptions about the depth and extent of risk under reflexive modernity. Yet, Turner fails to take his critique one step further and question whether, regardless of how extensive risk is, the regime of control and the social compact that distributes risk under industrial modernity is, in fact, breaking down as Beck asserts? Again, it seems highly problematic to suggest that the orderly distribution of risk, the ability to compensate or insure against risk, are automatically mitigated on the basis of exceptionalism: the advent of nuclear weaponry, the prospects of nuclear mishap or the looming prospect of ecological disaster. These remain possibilities, thankfully unrealized, and until such time not reflective of the current regime of control that remains in tact. Many states continue to display a high level of adeptness at largely indemnifying their constituents against natural disasters (floods, hurricanes, earthquakes, famine, humanitarian disaster), indeed the control regimes surrounding emergency management and response have probably never been so well formulated as they are today. The tragic December 26, 2004 tsunami in the Indian Ocean, for example, while representing one of the most devastating natural disasters of the last few centuries, inflicting cataclysmic destruction on multiple populations across several countries, was also one of the most well managed in terms of emergency response, humanitarian assistance and reconstructive aid efforts. Within hours of the tsunami hitting, emergence

[56] Bryn S. Turner as quoted in ibid., pp.299-300.

response teams were activated in Thailand, Sri Lanka and Indonesia, and within days international emergency and humanitarian assistance were deployed on a global scale, with these efforts redoubled as the calamity of the devastation became more apparent. Perhaps only in terms of the immediate humanitarian emergency response in Western Europe at the end of the Second World War has the world witnessed such a massive mobilization of resources, inter-agency effort and coordination, and global political coordination and response. Rather than a crisis of risk control and management, current crisis and emergency response systems represent an historical highpoint, having achieved greater levels of response effectiveness, early warning preparedness and crisis management than at any time before in history.[57]

But for Beck, of course, this is not important, since all this would be swept away by the magnitude of looming, exceptional risks. But how accurate is this assumption? The Cold war has ended, the risk of nuclear confrontation diminished inordinately, and with it surely also the prospects for nuclear weapons accidents? Nuclear arsenals continue to be reduced and technical safety systems increased. In all, the environment for nuclear weapon accidents or nuclear confrontation due to misunderstanding or misinformation have been mostly mitigated. Yes there remains the prospects for weapons of mass destruction falling into the wrong hands and prospects for the development and deployment of so-called dirty-bombs based on the use of low grade uranium. Terrifying though these are, however, they scarcely match the level of terror threatened under the Cold war, and given their low yields would be much less destructive than conventional nuclear weapons. Yes they would wreak massive destruction and misery, terrorize people around the globe and pose enormous costs both in terms of economic disruption and recovery. But in what sense would these be different to the historical experiences of, say,

[57] We could make similar claims of crisis and emergency response measures to recent global health pandemics such as AIDS (Acquired Immune Deficiency Syndrome) or SARS (Severe Acute Respiratory Syndrome). Both have invoked a global inter-governmental and inter-agency effort, to a considerable degree directing resource allocation and the development of effective global monitoring, reporting and response systems. While the question of resource adequacy in the case of AIDS and its correlation to poverty and development levels if far from satisfactory in Africa and developing Asia, the point is that the ability to mount global response efforts, many with outstanding achievements, has never been more realizable than they are today.

Hiroshima or Nagasaki, the Second World War, or Chernobyl? The consequences of risk exposure in these instances has traditionally been socialized, so why does Beck assume that such would not be the case again? The social compact would be stressed and challenged but, like before, not necessarily irreversibly broken. Likewise, even with recent events such as the BSE crisis in the United Kingdom, Europe and Canada, the outbreak of AIDS and SARS, the terrorist attacks in the United States, the ecological catastrophe of the cod crisis in Eastern Canada; the fish stock crisis in Europe, or any number of other events, the social compact has remained in tact and subject to collective accommodation and response efforts. Imperfect though these may be, they have not yet led to systemic failure in the sense of realizing the penultimate consequences of reflexive modernity. Nearly all have been addressed, most rectified or at the very least processes put in place to ameliorate their worst consequences and systemic causes.

Beck prefers to discount the success of these risk management efforts and tends to adopt, instead, a kind of fatalistic view of the human condition; an inability to correct errors, an ineptitude when it comes to moderating risk producing behavior, and a collective inertia in the face of looming risk(s). Yet, these assumptions seem to be less founded on empirical realities and more on a philosophy of fatalism, leading Beck to proffer a relatively simplistic prognosis: "institutions founder on their own success."[58] But do they? Again, the empirical evidence for this is problematic. Beck, for example, invokes the case of the German crystal lead factory in Upper Palatinate in the Federal Republic of Germany:

> Flecks of lead and arsenic the size of a penny had fallen on the town, and fluoride vapours had turned leaves brown, etched windows and caused bricks to crumble away. Residents were suffering from skins rashes, nausea and headaches. There was no question where all of that originated. The white dust was pouring visibly from the smokestacks of the factory.[59]

[58] As quoted in Ulrich Beck, Anthony Giddens and Scott Lash (1994), op.cit, p. 1.
[59] Ulrich Beck (1992), op.cit., p.102.

In terms of responsibility for the environmental risks produced by the factory, Beck is quite adamant that this was "a clear case." But, as he explains in disgust, "on the tenth day of the trial the presiding judge offered to drop charges in return for a fine DM10,000, a result which is typical of environmental crimes in the Federal Republic (1985: 12,000 investigations, twenty-seven convictions with prison terms, twenty-four of those suspended, the rest dropped)."[60] Science and the "organized irresponsibility" of the "security bureaucracies," Beck insists, increasingly dominate under reflexive modernity and, in the process, the apportionment of blame becomes obfuscated by an inept technocracy. In the case of the German crystal lead factory, Beck notes, "the commission of the crime could not and was not denied by anyone. A mitigating factor came into play for the culprits: there were three other glass factories in the vicinity which emitted the same pollutants." As a result, "the greater the number of smokestacks and discharge pipes through which pollutants and toxins are omitted, the lower the 'residual probability' that a culprit can be made responsible…"[61] The limits of science and of the technocracy is revealed by the fact of their inability to directly connect one polluter with specific pollutants. The more pollution generated and the more polluters, for Beck, essentially dilutes the social compact and the ability to apportion blame, responsibility and thus secure compensation.

The example provided by Beck is meant to demonstrate the increasing failure of the social compact, of science and the technocracy to apportion blame and compensate for risk production. Eloquent though this example is, again its reification onto a universal plain supposedly applicable to all advanced societies seems premature. To what extent, for example, is the paucity of environmental law in the Federal Republic true, say, of the United States, Australia, Canada, or New Zealand? And in what sense should the case example of the crystal lead factory be taken as a systemic condition of reflexive modernity? Surely it reflects little more than the paucity of outdated law in the German Federal Republic; a process that can be easily rectified by drafting better laws and by engaging political processes — much as Green movements throughout the world have

[60] ibid.
[61] ibid., p.103.

done with increasing success.[62] Beck, it seems, denies politics and political actors the ability to change laws and respond to environmental damages. More generally, Beck fails to recognize that risk distribution and compensation have always been contentious affairs; fraught with different legal opinions and with those responsible for the generation of risk keen to avoid the costs associated with it. Why, then, is this epoch distinctive from previous epochs where the same motifs have applied?

Unfortunately, for Beck, the point where his argument could be empirically sustained and probably has greatest insight and utility, is precisely the point where he places too little investigative and analytical weight. The epochal distinctiveness of the current global economic order, for example, especially in terms of the risk posed by the constellation of opposing financial architectures, between semi-liberalized and non-liberalized state financial systems, the extraordinary growth in arbitrage instruments of various kinds, and the structural imbalances this creates in a global financial system now fiercely interdependent, makes for an increasingly vexed global financial order posing greater risk to global wealth and the normal functioning of markets. While Beck eludes to this in terms of the structural changes foisted on foreign direct investment patterns by globalization, his poor understanding of basic political-economy precludes him from devoting anything but cursory remarks to these processes. More obviously, by declaring the economic manifestation of globalization as simply a process of capital relocation from the core to periphery; from the factories of Western Europe to the sweatshops of the developing world, Beck is left with little scope for exploring the fundamental changes in the global financial architecture and the increasingly precarious risk environment this generates and which, potentially, poses greater risk to global financial stability and the possibility of systemic global crisis. Beck, however, seems oblivious to this, failing to understand the elemental difference between movement of productive capital (FDI), short term capital and the rise of the speculative or symbol economy. It is the latter and the extraordinary growth in the volume of these transactions and the various arbitrage

[62] Attempts at the legal and regulatory control of risk are addressed by George L. Priest (1990), "The New legal Structure of Risk Control," Deadalus, Fall, pp.207-227.

instruments engineered to secure them, where the emergence of the risk society thesis might be profitably applied but where Beck fails to do so.

Empirical Risk, Perceptible Risk and Perceptions of Risk: Beck's Contribution to Risk Discourse

It is obvious that a purely empirical reading of Beck reveals serious shortcomings with the risk society thesis. To be fair to Beck, however, is this the correct way to read him? As Dirk Matten notes," Beck's ideas are more of a provocative and conceptual nature rather than a minute empirical proof of certain social changes."[63] They are perhaps better understood as a cultural and social commentary about the condition of late modernity and of its contradictions that embody both progress but also harm and risk. Like many of his contemporaries, Beck is alarmed by this; of the fact of progress in most every area of human endeavor but amid a rampant disregard for ecological preservation, the utilization of technologies for nefarious means (weapons) and in the production of outcomes that were unintended. Beck's fixation with risk can thus perhaps be appreciated in the context of a kind of hyper-sensitive era, in which all risk no matter how finite becomes ethically unacceptable and a bellwether of the social psyche. When Aaron Wildavsky asks, for example, "why are the healthiest, longest lived nations on earth so panicked about their health?" the answer must surely lie not in the empirical condition of longevity, the betterment of the human condition and the fact of medical advance, but in the fact that ever smaller amounts of risk, no matter how trifling, are now increasingly judged unacceptable in a society highly sensitive to any distortions to yet further progress and greater longevity.[64] It is, perhaps, not so much a question about whether in fact there is more risk —— although of course this remains a quintessential question for all risk theorists —— but how society perceives the risk produced and the adequacy of its management, compensation and mitigation. Read as a moment in the success of modernity, and at a time where risk tolerance has been reduced, risk aversion increased, and risk perception sensitized, Beck has undoubtedly captured the collective essence of a

[63] Dirk Matten (2004), op.cit, p.372.
[64] Aaron Wildavsky as quoted in John Adams (2002), Risk. London: Routledge, p.183

global society ill at ease. His greatest contribution perhaps lies in exposing these apparent paradoxes, capturing the essence of our collective angst about the limits of science, progress and rationality, about the sublimation of nature and the natural environment into ever more remote corners of our everyday experience, while at the same time still confronted by the limitation of knowledge, the fallibility of our existence, and the finiteness of our mortality. Despite the success of science, technical knowledge, and the great leaps forward in our collective wellbeing, in the end each of us still faces the perils of everyday existence, the probabilities of meeting our fate through incurable illness, the uncertainty of our personal futures, or the possibility of accident and misfortune through exposure to the very products derived through scientific progress. Bar for the possibility of transforming uncertainty, risk and harm into instruments amendable to control and mitigation, Beck's work will surely resonate for generations to come.