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National Security and Global Financial Governance

Paper to be presented at ISSS/ISAC Conference
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Draft: comments welcome

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Abstract: One threat in the post-9/11 world that was previously subsumed under the Cold War rubric is the threat of instability in financial markets that can undermine the legitimacy of the governments of states. Understanding the structure of international finance is thus crucial to issues of global governance, the more so because the contemporary structure of finance can threaten any individual state beyond its capacity to cope. All the actors in finance (whether commercial or investment banks, central banks, or other types) are connected by each financial transaction they make, as well as every regulatory or enforcement transaction; all transactions are relationships. All of these relationships together make a network. By examining these relationships using network analysis, we should see how all financial actors are wired together—not just the position of the biggest or most prominent. We should also be able to see second- and third-degree relationships. Network analysis thus allows us to explore a “map” of the financial terrain on which various strategies for security may be employed. These strategies can include checks to stop cascades and regulations to break up actors with high measures of centrality.

Sonnet 66

*TIR'D with all these, for restful death I cry
As to behold desert a beggar born,
And needy nothing trimm'd in jollity,
And purest faith unhappily forsworn,
And gilded honour shamefully misplac'd,
And maiden virtue rudely strumpeted,
And right perfection wrongfully disgraced,
And strength by limping sway disabled,
And art made tongue-tied by authority,
And folly—doctor-like—controlling skill,
And simple truth miscall'd simplicity,
And captive good attending captain ill:
Tir'd with all these, from these would I be gone,
Save that, to die, I leave my love alone.*

—*William Shakespeare*

In *The New Reasoner*, (Anonymous 1958), an anonymous poet recalled Boris Pasternak's performance of his translation of Shakespeare's sixty-sixth sonnet, at a time when the Nobel-winning author could not publish his own works in the Soviet Union:

The place was packed, some people sitting in the gangways. Pasternak had a triumphal reception. After the conclusion of each piece people from all parts of the hall would shout out the names of their favourites in much the same way as a popular tenor is urged to render this, that or the other Neapolitan song or snippet of opera. When someone raised the cry 'Sixty-sixth sonnet,' others took it up until it seemed the whole audience was chanting 'Shidisyat shistoi sonet!' ["Give us the sixty-sixth!"].

The sonnet, while on the surface unobjectionable to the authorities, had an obvious subtext for the audience. They could not articulate the sentiment on their own behalf, but they could call on Shakespeare and Pasternak to say it for them: there was something very wrong with the situation in which they found themselves. Instead of being the workers' paradise that many had hoped and striven for, the Soviet Union was an ugly, distorted perversion of all their values. They were at odds with the hegemony, with the elite definition of their times.

This paper examines the contemporary structure of international finance with a view to its impact on global security governance. First, it examines the context of globalization and drivers of change in how the global security governance of both human and traditional security has been affected by the "Washington Consensus." There has been a neoliberal economic push to privatize security functions and infrastructures that

were formerly the province of states. Antonio Gramsci's intellectual constructs of hegemony and historic bloc are particularly useful in describing the background context of contemporary globalization. There are clear markers of this transformative, de-institutionalizing change, which has implications for theory building as well as for policy making—security is no longer a matter only for states but a global governance matter, requiring the cooperation of many different types of actors. The paper therefore argues that the drivers of change are the privatization trends that have created the present state of globalization. Previous writers discussing this phenomenon that have used solely qualitative methods to create a narrative explanation, or that have focused solely on states when using quantitative methods miss important parts of the picture. This paper aims to fill in this lacuna in the study of international political economy.

The Washington Consensus was a hegemonic idea that had far-reaching consequences in security. The markers of change in security are the use of the private sector for state ends and assumption of private financial risk by the state. These new actors and actions led to a new historic bloc, where both the provision of security and the ends of security included actors other than the state. This in turn provided a dialectic opening: state security's instruments and goals allowed expansion in what could reasonably be included under the umbrella of state security. This opening has become the recognition of new dimensions of security—a new hegemonic idea, and a new historic bloc. This bloc is the shape of contemporary global finance, and has security implications for the state.

Second, it examines the method of network analysis as applied to economics and finance. The ontology of network analysis includes the assumption that institutions are not the most important aspect of social life; rather, it is the fact that actors interact with each other, creating a pattern of relationships. This pattern can be quantified and analyzed using the methods of graph theory, allowing us to see the pattern of hegemony in action. Such a mapping can produce insights unavailable to a narrative overview, such as the location of second- and third-degree effects of events. Network analysis thus is a potentially useful tool for both regulators and investors; what remains is for policymakers to make institution-level data available to the public.

This paper will define hegemony and historic bloc, explain the Washington Consensus (especially its emphasis on the virtues of privatization), explore the markers of this privatization—the growing use of private security contractors and the assumption of elites' private financial risk, and trace the effect that this expansion had on the definitions of security. It will end by posing a research methodology and agenda for both studying and regulating the new historic bloc that resulted from the hegemonic domination of the Washington Consensus, and resulted in the current global financial crisis.

Hegemony and Historic Bloc

Antonio Gramsci (1891-1937) was an Italian Marxist who mused widely on political thought while he was imprisoned by the Fascists. Unfortunately, he died of the illness he contracted in prison before he could finish these thoughts in published works. However, some of his concepts have proved so useful to political science that they have thrived without polishing, and beyond the context in which they were first developed (Sassoon 1987). Indeed, Adam David Morton warns against an “austere historicism” that fossilizes the past, and says that Gramsci can be used as an inspiration if not a blueprint (Morton 1999). Two of those helpful concepts are hegemony and historic bloc.

In Gramsci’s political thought, *hegemony* refers to the nexus between an idea and the class that supports it/is supported by it. A hegemonic class dominates the network of relations of social forces. A popular, persuasive ideology is wedded to the fortunes of a particular class that then gains control over both the state and over other groupings in civil society—not just class, but also race, gender, family, etc. According to James Joll, “Gramsci saw, in a way that few other Marxists have done, that the rule of one class over another does not depend on economic or physical power alone but rather on persuading the ruled to accept the system of beliefs of the ruling class and to share its social, cultural, and moral values” (Joll 1977). Hegemony thus structures the interactions among classes peacefully; as Roger Simon puts it, hegemony “is a relation, not of domination by means of force, but of consent by means of political and ideological leadership. It is the organisation of consent” (Simon 1982).

Hegemony breaks down in periods of crisis, with a new one created by a socially homogenous ruling class that first establishes moral and intellectual leadership, then obtains political power. Gramsci writes that changes “can come about either because a situation of well being is threatened by the narrow self-interest of an opposing group, or because hardship has become intolerable and no force is visible in the old society capable of mitigating it and of re-establishing normality by legal means” (Gramsci and Forgacs 1988). Joll finds that there are three versions of this dialectic process: the reciprocal interaction of one thing on another, the Hegelian thesis/antithesis/synthesis, and the relation between the structure and the superstructure (the ethics, law, philosophy, art and so on that are associated with the particular mode of production). In his words, “the dialectic is something more than the blind clash of physical forces” (Joll 1977).

Simon also makes the point that economism according to Gramsci’s thought is “the interpretation of Marxism which holds that political developments are the expression of economic developments.” In other words, the arrow of causation goes one way only; there is no feedback. Gramsci (and Lenin) disputed this mechanical determinism, and cited instead the importance (primacy) of politics, of human agency. Furthermore, the institutions of parliamentary democracy are classless in themselves—they are the terrain that the classes fight over. The class that succeeds in building hegemony wins the control of the institutions.

Hegemony thus creates, through the unification of leaders and followers an *historic bloc*. In Gramsci's own words, "Superstructures form a 'historical bloc.' That is to say the complex, contradictory and discordant ensemble of the superstructures is the reflection of the ensemble of the social relations of production" (Gramsci and Forgacs 1988).

The International Relations theorist most commonly associated with Gramsci is Robert Cox. In his chapter from *Neorealism and its Critics* (Cox 1986), Cox explains that the state and civil society are today interpenetrated, and thus that problem-solving theories such as neorealism are akin to "normal science" (Kuhn 1970), in that they accept uncritically the prevailing structure, and simply try to make it work more effectively, are insufficient. He calls instead for critical theory, which asks how prevailing structures came into being, and what they would look like if change were introduced.¹

For Cox, historical materialism is the theory that seeks to both explain change in social relations and to normatively promote specific kinds of change. Structure is the result of the interaction of the following forces: ideas, material capabilities, and institutions. The latter is closely connected with hegemony: institutions minimize the use of force by the dominance of the strong with the consent of the weak. Structure is not determinism, but it does impose constraints on actors that have agency. The historic bloc is thus a concept with dialectical properties: "its interacting elements create a larger unity" (Cox and Sinclair 1996) that embody hegemony politically, economically, and socially.

Of the hegemony current in the 1980s, which Cox calls the *pax Americana*, he asks what mechanisms maintain that order, and what is generated within that would eventually destroy it? I believe the answer to that question is contained within the Washington Consensus.

The Washington Consensus

The term "Washington Consensus" was coined by John Williamson (Williamson 2009) at a propitious time to become a catchphrase: 1989, when the Cold War was ending. It thus provided an imperfect but shorthand expression for the generally neoliberal economic policy recommendations that were being considered at the time, aimed at Latin America in particular, but also at Asia and the newly independent former Soviet republics. Williamson gathered ten general policy prescriptions: fiscal discipline, reordering public expenditure priorities, tax reform, liberalizing interest rates, a competitive exchange rate, trade liberalization, liberalization of inward foreign direct investment, privatization, deregulation, and property rights. Broadly, it advocated the pursuit of macroeconomic stability through the control of inflation and reducing fiscal

¹ One could argue that the Gramscian hegemonic idea is similar to Kuhn's scientific paradigm except for the ways in which they end: Kuhn's normal science accumulates anomalies, while Gramsci's hegemony can end with a crisis.

deficits, the opening of economies through trade and capital account liberalization, and the liberalization of domestic product and factor markets through privatization and deregulation (Gore 2000).

Moises Naim explained that the Washington Consensus was never a coherent ideology; it was always a work in progress, lurching from crisis to crisis while at the same time continually moving the goal posts for development policy (Naim 2000). Indeed, the list of necessary but often politically impossible as well as insufficient policies kept growing in a feedback loop. First stop in the loop was the discovery of economic orthodoxy, then the discovery of the importance of institutions, then the discovery of the importance of globalization, and the re-discovery of underdevelopment. Writing in 2000, he pointed out that sound macroeconomics had turned out not to be a goal, but actually a precondition of prosperity—“The difficult paradox, of course, is that any country that is capable of meeting such stringent requirements is already a developed country.” He recommends baby steps toward development that are actually achievable.

For these reasons, the Washington Consensus did not last. However, while it did, it made significant inroads on policymakers in both the developing world and the developed world. According to Gore, the impact on development markers included the globalization of analysis in terms of liberal norms, but with methodological nationalism; and a shift from historicism to ahistoricism in performance assessment, which was disaggregated by sector and compared to unlike others' performance. According to Colin Crouch and Wolfgang Streeck, a global effect was to whittle down the diversity of capitalism: the alternatives for core institutions such as competitive markets and property rights available within capitalism were killed off, and the mechanisms of economic governance (state, formal associations, and informal associations) were hobbled (Crouch and Streeck 1997). The “embedded liberalism” (Ruggie 1998) of the post-World War II period was transformed.

The idea in the Washington Consensus most successful at winning broad acceptance was privatization. Privatization as a concept expanded its hegemony from the “sale” of the state’s assets in the former Soviet Union in the early 1990s, to the outsourcing of core activities of the state with its monopoly on the legitimate use of violence in war by the early 2000s. It spread to the assumption of elite private investor risk in the late 2000s with the state bailouts of financial firms in 2009.

Markers of Privatization

The markers of privatization in security are the growth of human misery as a result of the pursuit of the Washington Consensus in the developing world, the end of the monopoly on the legitimate use of violence, and the assumption of private risk in the developed world. These are indicators of the hegemonic change in the assumptions and methods underlying the provision of global security.

The suffering that the pursuit of these policies has brought to millions of poor people around the world—those least able to bear the imposition of macroeconomic stability and trade liberalization—has been well canvassed by many authors. Two that give moving descriptions as well as provide prescriptions for alternatives are Joseph E. Stiglitz's *Globalization and its discontents* (Stiglitz 2003) and David Held's *Global covenant: the social democratic alternative to the Washington Consensus* (Held 2003). The limits of space compel me to refer readers to these works for more detail; my concern here is to link the infliction of wretchedness by the very governments that were supposed to manage the economy in the interest of the people—the biggest threat to bodily integrity in these countries was being forced into poverty. This same period thus saw the exponential growth of nongovernmental organizations that tried to alleviate the situation (Mathews 1997). The actors involved in situations of threat and protection from threat were multiplied.

As a marker of privatization, Hoffman and Weiss in *Sword & Salve* note that “Although the growth of private military sector is usually correlated to increasing concerns over security—in fact, neoliberal pressures and globalization also spurred development of this industry” (Hoffman and Weiss 2006). According to a summary of a Congressional Research Service report in *The Christian Science Monitor*, as of March 2009, contractors made up 57 percent of the Pentagon's Afghanistan personnel (Grier 2009). At the same time, there were more contractors than uniformed soldiers in Iraq, six years after the initial invasion (Lubold 2009). Deborah Avant predicted the privatization of security would change states, markets and civil society, forcing institutional innovation: “The privatization of security promises change in the practice of sovereignty. We should expect this change to affect not only states, but also the markets and societies that have built themselves around the state system” (Avant 2004).

Hoffman and Weiss explain that these contractors are different from mere mercenaries in that they are formal business entities that “seek official acknowledgment, if not sanction, from political authorities” (Hoffman and Weiss 2006). Eugene B. Smith argued for the use of private military contractors (PMCs) in “The New Condottieri and US Policy: The Privatization of Conflict and Its Implications,” writing that PMCs could be used in cases where US forces did not have the capabilities—which begs the question; why send troops in the first place?—as a sort of force multiplier.

Paradoxically, the assumption of private risk refers to the efforts of states to assure financial stability. The public assumption of private risk is the separation of risk from profit—the profits remain private. The state bailouts in the current financial crisis included A.I.G. by the United States, which also benefited the shareholders of Goldman Sachs, which held large contracts with A.I.G. (Walsh 2009); Northern Rock, Lloyds Banking Group, and Royal Bank of Scotland (RBS) by the United Kingdom (BBC 2009a, BBC 2009b); Landsbanki by Iceland (Lewis 2009); and Dubai World and Dubai Holding by fellow emirate Abu Dhabi. Iceland made a \$5.5 billion commitment to make whole British and Dutch depositors in the failed bank Landsbanki that has been scuttled

in a nationwide referendum (The Economist 2009a, The Economist 2010). Dubai had to be rescued by loans from other states and from regional banks (The Economist 2009b, The Economist 2009c). Such bailouts embodied what is known as “moral risk,” or the tendency of investors to make extremely unwise investments serene in the knowledge that they will not lose their money. It is called “moral” risk because it undermines the very idea that the market will reward informed investing and punish gambling.

Because of the growth of types of actors involved in the provision of security, there is no longer an a priori connection between securer and secured, so the relationship is the source of security information, not the actors at either end of that relationship. Implicitly, this calls for more effective global governance of these relationships, as state regulation of these relationships is not and will not be adequate.

In the case of private security contractors, the state gave up its monopoly on the legitimate use of violence, creating a security threat: people can now be legitimately threatened by something other than a state, and they can require defense from these new actors. In the case of risk assumption, the state guaranteed the security of some investors over others. Together, these trends have led to a paradox: by stretching security to include non-state instruments by which security is obtained and non-state objects for which security is sought, beyond the bounds of traditional sovereignty, the very definition of security has been stretched, allowing it to be applied even farther afield.

Defining Security

The change in outward markers of security governance should compel a change in the conception of security. The problem of defining security in the post-Cold War era has been relating traditional security challenges to the territorial and institutional integrity of the state to non-traditional security challenges such as drugs, disease, pollution, population growth, ethnic and religious conflicts, gender violence, transnational terrorism, and migration. Globalization fosters and speeds the interconnection between today’s threats—but it also fosters and speeds the interconnection between the organizations that respond to them.

This argument is not meant to imply that human security issues such as those raised in feminist or development arenas were not important before, nor that scholars were unaware of their significance (Tickner 1992). Rather, as in Cox’s critical theory, it is that with privatization exercising hegemony and opening the territory to non-state actors, rhetorical space within the security establishment for discussion of non-traditional types of security has also been opened and settled.

Security has more than one dimension. For academics and policymakers traditionally, the question of “Security for whom?” was answered “the state.” And yet, this does not fully capture the concept of security. MacFarlane and Khong traced the development of the idea of human security from its beginnings in the Cold War, through

the 1990s in development and in the need for protection. Starting in the mid 1980s, security has been redefined to include other dimensions: not only may the threat come from outside or from within the community to be protected; but it may be natural or human. It may have agency (MacFarlane and Khong 2006).

According to Paris, the basic questions to be answered are “Security for whom?” and “What is the source of the security threat?” The answer to the first question may be either states or other collectivities and individuals. The answer to the second question may be either military, nonmilitary, or both (Paris 2001). At one diagonal of his matrix there is human security, which is protection from environmental and economic threats to the survival of societies, groups, and individuals. At the other diagonal is traditional national security, which is the protection of the territory of the political community of the state from a military threat emanating from another state. However, as Krause puts it in a trenchant piece in the *Security Dialogue* debate published in 2004, the former end of the matrix consists of protection from “all bad things” (Krause 2004), and as such does not provide an intellectual toehold for analysis. Owen adds that the severity of the threat ought to be considered; he argues convincingly that severity is a better category than simply violence because a threshold can be defined, such as that by ICISS report *The Responsibility to Protect* (Owen 2004).

This change in conception of security can be traced in the publications of the National Intelligence Council. The first (publicly released) National Intelligence Estimate that relate to nonstate phenomena appear in 1948, with “The Significance of the World Federation of Trade Unions in the Present Power Conflict” (CIA 1948). With the first forward-planning publications that took long-term views of the future, starting with *Global Trends 2010* but especially with *Global Trends 2015*, the NIC put human security considerations squarely in the middle of security analysis, highlighting the dangers that could accrue when issues such as demographics and natural resources are ignored (NIC 2000).

The debate that was canvassed in *Security Dialogue* was answered in 2009 by a forum in the *World Policy Journal* in 2009. This group of essays considers various aspects of human security, as well as exploring how these security needs have, or have not been met, as well as the concept’s future prospects. For example, will the concept retain its universal, all-inclusive aspect as power continues to shift to the east (Kim et al. 2009)? It also prompts thoughts of blind spots in the way the concept has been applied—to food (Mousseau 2009), but not to small arms.

Security can also be defined as a common pool resource: a resource system in which it is possible but costly to exclude potential beneficiaries from obtaining the resource units of that system (Ostrom 1990). In terms of global financial governance, the system is the environment of local, national, and regional regulation (or lack thereof), while the resource unit is the flow of credit through that system. It is possible, but costly, to exclude certain financial actors from this system. Finally, as Ostrom points out, there

are institutions capable of governing such a commons without resorting to the extremes of top-down control or atomized market.

The previous sections outlined the theoretical justifications for using an approach to analysis that emphasizes patterns and structures in matters of security governance. The change in the conception of security thus extends to the contemporary structure of global finance. By explicitly linking the security of the state and capital flows in our theory, we can appreciate the importance of approaches that explicitly take into account the relationships among actors. In the following section, the paper will discuss the methodological underpinnings of the network analysis approach.

Graphing the Historic Bloc

To take advantage of the multiple dimensions of security, I would propose a new matrix, one that includes speed. The speed at which a threat moves is also critical: it may strike with or without warning. Threats may therefore be imminent, as in a nuclear strike, or insidious, as in poverty. This is a situation that is exacerbated by globalization: the Black Plague took four years (1347-1351) to spread through and decimate Europe; the Spanish influenza took two years (1918-1919) to affect the entire world; while SARS took only weeks to circle the globe. This is the sense of threat as crisis (Thakur 2004). The source, object, severity, and speed of the threat all help to determine the type of policy instrument used to counter it, and especially in the case of transnational threats, may require that different institutions react in concert. The threat may come from outside or from within the community to be protected; it may be natural or human, with or without warning.

Box 1: Security Matrix

Dimension of Security	How Security is Measured		
	Object to be protected:	Individual	World
	Source of threat:	Human agency	Natural process
	Severity of threat:	Few people affected	Many people affected
	Speed of threat:	Slow	Quick

In reading the matrix, one should keep in mind that while the columns list dichotomous choices, they are actually extremes on a spectrum. To use the most obvious example, the object of security according to the traditional definition is the state.

The counterhegemonic idea has created a new historic bloc in global security governance. Authors qualitatively tracing the development of hegemonic ideas through dialectic and their resulting historic blocs include Philip Bobbitt, Craig N. Murphy, and Manuel Castells. In Bobbitt's *The Shield of Achilles*, the strategic innovations that prove decisive in epochal wars interact with the struggle over the constitutional order, creating new forms of government and new tactics, with the caveat that epochal wars do not have

to be great power cataclysms—they could be low intensity conflict leading to economic and social collapse (Bobbitt 2002).

Murphy's *Global Institutions, Marginalization, and Development* explains that this relationship at the international system level has led to the coevolution of modern intergovernmental organizations and capitalist industry, creating an historic bloc similar to Bobbitt's era of market states, in which global level private actors regulate both states and much of transnational economic and social life (as in the case of bond-rating agencies). He uses a similar system for defining the generations of international economic regimes: revolutionary communications require new agencies, which appear before a crisis. The ends of crises are punctuated by new agreements and institutions that both create and sustain order in the world's economic relations (Murphy 2005).

In *The Rise of the Network Society*, Castells traces the impact of the technology of knowledge generation, information processing, and symbol communication in the emergence of a new global social structure which takes on various flavors depending on the mix of cultures and institutions in which the technology can be found. The productivity of these technologies is the result of a new informational mode of development. The network society is institutionally “for the time being, a capitalist society” (Castells 2000). But it represents a qualitative change in human experience, and is transforming the material foundations of society, and the way we encounter space and time.

These are all important contributions to scholarship, advancing the knowledge of the structure of particular historic blocs. However, as plans for action, these qualitative studies are too diffuse. Because the concept includes non-state actors, it is necessary to have some way of depicting the multiple types of relationships among every type of actor, not just states, and to do it in a way that does not take hundreds of pages. I propose using network analysis to map these relationships, using power as the relation. As Sassoon writes,

A precise understanding of the relationship of different groups which are allied under the hegemony of the dominant class is necessary for the party so that it can formulate its tactics bearing in mind the ethical and cultural *form* of the hegemony of its opponents but also the economic consequences which provide the limits or boundaries of compromises by the ‘leading group’” (Sassoon 1987).

Even more to the point, Cox writes “At its most abstract, the notion of a framework for action or historical structure is a picture of a particular configuration of actors” (Cox 1986). In other words, to know where you are, and where you want to go, it helps to have a map. A network graph is just such a map of relationships, showing distances and possible routes among nodes/actors (Wasserman and Faust 1994). It would also be helpful to have stringent, theoretically-based definitions of what is to be considered a

relationship. An example would be the matrix of types of power developed in *Power in Global Governance* (Barnett and Duvall 2005).

A network responding to transnational threats to either human or national security requires connections and coordination—cooperation among actors. With this research agenda, scholars can make clear the existing relationships between actors, thus suggesting areas in which improvements can be made. We may also be able to show that the structure of the network makes a difference in how effective it is in meeting the threat it was created to resolve.

A graphic representation of security space would show the multiple dimensions in which security issues can be mapped; a four-dimensional map of an historic bloc, a particular configuration of power in space and time. For the purpose of this investigation, the four axes of security are source of threat, target, speed, and impact: thus locating the networks of security governance in a multidimensional structural space (MacFarlane and Khong 2006, Paris 2001). Once an event or issue is located on these axes, the resulting plane or slice is known. This slice is the frame (Goffman 1975) through which the security threat is thought about and responded to, and thus can tell observers about primary effects of structural constraints on the governance of security—the kind of network of actors that will form in response to a given threat. These networks are categorized by the actors involved and how they are organized.

Importantly, this security space gives us multiple ways to think about security. We can look at the slice to see which, if any, actors are present; and we can look at the actors to see in which slice they are located. To some extent, the slices could be pre-determined, meaning that the dimensions of known security issues could be decided ahead of time by defining it along the axes. For example, pandemic disease (WHO definition) is a fast-moving threat without agency that affects many individuals. Once the broad outlines of the slice are known, we can look to see if there is a network response to it. This approach would be useful to see where security is and is not being provided. It would thus also be useful in order to examine relatively neglected issues such as women's security, and to create new approaches on the basis of critical theory.

As others have noted, the role business plays in the state is not merely that of an interest group role (although business has those as well), but it also has a function in governing: providing economic stability, a minimum threshold of unemployment, and growth. In fact, as Mizruchi notes, the Marxist project of mapping power elites through interlocking corporate directorships petered out due to a lack of methods and data, not from lack of interest (Mizruchi 2007). In the eyes of government, business is not a special interest, but performers of an indispensable function—adverse effects like unemployment are unacceptable to government (Lindblom 1977). When this role is not performed, the resulting economic crisis threatens the state's legitimacy. In a democracy, this means throwing out the ruling party, while in non-democratic systems it can mean

revolution. This is a human-origin threat that moves quite slowly (at first), but that affects the integrity of the state.

This leads to a condition of “interdependent security,” in financial networks as defined by Kunreuther in “The Weakest Link: Managing Risk Through Interdependent Strategies”:

In a networked world, the risks faced by any one agent depend not only on that agent’s own choices but also on those of others. More specifically, the economic incentive of any agent to invest in protection depends on how she expects others to behave. The strategies can be risk-reducing measures as well as information-gathering and preparedness activities. The fact that such events are typically probabilistic, and that the risk that one agent faces is often determined in part by the behavior of others, gives a unique and complex structure to the incentives that agents face to reduce their exposures to these risks that come under the heading of interdependent security (IDS) (Kunreuther 2009, 384).

Interdependent security thus fits into the dimensional matrix of security on the following axes: the proximate threat may be to a financial institution but the ultimate threat is to the state; it can move very quickly (electronic finance literally moves at the speed of light—regulatory mechanisms may someday require deliberately slowing it down or the payment of a tax/penalty for speed);

Mapping the positions of the actors in this historic bloc narratively takes a lot of time, requires access to people and data, and can still miss important structural features. By using network analysis, researchers could at least partly reconcile historicism and positivism like Cox, creating a snapshot of an individual network is static/synchronic (Cox and Sinclair 1996), while multiple slices of the space can show diachronic or developmental progression like MRI slides. Ultimately a map of relationships can illustrate where actor’s efforts can be best focused: in helping to decide where to create or cut ties to others. In the case of global finance, a map can show the ways in which failure can spread to others.

Assessing Systemic Risk

By looking at the entire system that is created by hegemony, governance efforts can be more usefully deployed. Threats to system security, or systemic risk, can be modeled and governors can experiment with different remedies on the models, rather than experimenting on the fly during a crisis.

One of the problems governments face when attempting to regulate financial institutions is that laws written to govern one type of institution, such as commercial banks, do not govern others, such as investment banks. Financial advances that create new institutions thus experience a lag between creation and regulation that can be

exploited by the unscrupulous. Instead of focusing on the type of actor when crafting rules, regulators should focus on the relationships among them—that is, they should use network analysis.

All the actors in finance are connected by each trade or other financial transaction they make; among banks, mortgage companies, credit unions, and so on, every transaction is a relationship. All of these relationships together make a network. If we look at a specific type of transaction using social network analysis, we should see how financial actors are wired together. The focus on the relationship rather than the actor means that the distinction between regulated banking and so-called “shadow” banking sectors is meaningless. “Did the entity issue a mortgage?” is the relevant question for regulators, not “is it a bank?” This way, regulators do not have to wait for nation-specific legislation or international agreements to catch up with innovation in financial instruments.

Financial actors are connected by monetary transactions. According to Allen and Babus (2009): “In the context of financial systems, the nodes of the network represent financial institutions, and the links are created through mutual exposures between banks, acquired on the interbank market by holding similar portfolio exposures or by sharing the same mass of depositors.” However, this definition is more akin to regular equivalence (Hanneman and Riddle 2005); where the actors do not necessarily fall in the same network positions or locations with respect to other individual actors; rather, they have the same kinds of relationships with some members of other sets of actor.

Financial actors may also occupy different roles within networks such as cutpoint and broker, actors that connect otherwise unrelated clusters of individuals. Removal of these nodes splits the network into two separate networks that do not interact with each other. The number of trades they make and the value of this trade may not look especially significant to the network, but these nodes play important parts in passing on the effects of shocks such as bankruptcy. And there will be many different networks, depending on the type of transaction we look at: whether mortgages, stocks, bonds, or derivatives. Some of the actors will be active in many networks – think of the intersection in a Venn diagram.

The problem is not simply one of sheer size, but that some of these actors will be more central than others. It is for this reason that Akram and Christophersen define an actor of systemic importance as a function of size incorporating the percentage of the total assets in the network sample plus connectedness, or centrality (Akram and Christophersen 2010).

There are many measures of centrality—some actors will have more interactions, or will have ties to more partners, or will closely connect such actors without being as active in trading themselves (Wasserman and Faust 1994). For example, “degree centrality” simply measures the number of ties an actor has. If the relationship is

directed, as in the flow of money from one actor to another, we can also speak of in-degrees and out-degrees, and in the case of money, the relationship is also valued. Even just using this one measure, we can examine the network to see which actors are dealing with each other, how much that trade is worth, and in which direction the exchange is flowing.

The objective definition of “too big to fail” (Trumbull 2008) could therefore be defined as those actors with high centrality measures that are located at the intersection of multiple networks (as measured by transaction type). This is the first step in assessing systemic risk, as the Chairman of the Federal Reserve called for at the Federal Reserve Bank of Kansas City's Annual Economic Symposium, in August 2008 (Bernanke 2008). Economists have made great strides in assessing systemic risk using network analysis. Pioneering this use of network analysis are economists at the IMF. They have christened the problem as being “too-connected-to-fail” (Chan-Lau 2010a, 2010b), and in the absence of data have cobbled together a method of inferring data from balance sheets (Chan-Lau 2010a).

However, in contrast to Akram and Christophersen's recommendation of using eigenvector centrality (which measures the influence of a node on highly influential nodes), different measures of centrality might have to be used according to the type of network flow being studied (Borgatti 2005). Borgatti categorizes flows through networks as being a function of the mechanics of dyadic diffusion and of the kind of trajectory the flow can take. Money moves through directed transactions, not through random diffusion, and it moves in discrete units that are transferred, not duplicated. Therefore, as-yet-undeveloped variants of betweenness centrality, which measures the likelihood of a node to lie on the shortest path between nodes; and degree centrality, which measures the number of ties a node has, would likely be more useful measures for financial transactions. This should be empirically tested, rather than assuming one measure is as good as another.

The Global Financial Crisis

As an example of how network analysis can uncover hidden connections, consider the roots of the 2007 global financial crisis. The Center for Public Integrity analyzed government data on nearly 7.2 million subprime loans made in the United States from 2005 through 2007, a period that marks the peak and collapse of the subprime boom. Subprime loans are mortgages that charge higher interest rates because they are at higher risk of default, or non-repayment. Subprime mortgages are given to people who do not have assets, jobs or other sources of income that would enable them to pay back the loan.

Major U.S. and European banks spent large amounts in the subprime lending market due to unceasing demand for high-yield, high-risk bonds backed by home mortgages—the so-called “collateralized mortgage obligations” or CMOs. According to the U.S. Securities and Exchange Commission, Collateralized mortgage obligations

(CMOs), are a type of mortgage-backed security, are bonds that represent claims to specific cash flows from large pools of home mortgages. The streams of principal and interest payments on the mortgages are distributed to the different classes of CMO interests, known as tranches, according to a complicated deal structure. Each tranche may have different principal balances, coupon rates, prepayment risks, and maturity dates (ranging from a few months to twenty years).

CMOs are often highly sensitive to changes in interest rates and any resulting change in the rate at which homeowners sell their properties, refinance, or otherwise pre-pay their loans. Investors in these securities may not only be subjected to this prepayment risk, but also exposed to significant legal, market and liquidity risks. The CMOs were in high demand because ratings agencies such as Moody's and Standard & Poor's had given them high ratings, the rating being the agency's opinion on the general creditworthiness of an individual or organization that owed money. The higher the rating, the safer the investment was supposed to be, which made the CMOs attractive to pension funds and other unadventurous investors.

At the time, truly safe investments such as U.S. Treasury and municipal bonds were paying very low yields because the federal funds rate was only one percent. Global investors wanted better returns, so they started buying more, investing about \$70 trillion in CMOs, or what one analysis would call a "giant pool of money" (This American Life 2008). While the CMOs made up of traditional mortgages to credit-worthy people were likely to perform as advertised, the CMOs that were made up of subprime mortgages were assumed to be uncorrelated but all their tranches were likely to default at once when the teaser interest rates expired (Lewis 2010a). The banks made huge profits while their executives collected handsome bonuses until the bottom fell out of the real estate market. The collapse of the housing market bubble caused a global economic meltdown, because the bonds had been sold to investors all over the world as being safe—when they were based on loans made to the people least likely to repay them.

The Center's analysis also revealed what they named the "Subprime 25"— the top 25 originators of the high-interest loans, accounting for nearly \$1 trillion and about three-quarters of industry-reported subprime loans during that period. The following network graphs are meant only for illustrative purposes; they do not represent the entire networks of the transactions involved. The first network graph shows the connections between the top 25 companies that specialized in making subprime mortgages, and the banks that then created bonds based on bundles of these mortgages.

[insert Fig. 1 "The Subprime 25 & Their Backers"]

The graph has a spring-embedded layout, which means that all of the links between the nodes are of more or less equal length with as few crossing edges as possible, and then applying an algorithm or repeated mathematical operation to the length so that nodes that have many interactions with each other are closer together than nodes

that don't interact with each other. The red nodes are the Wall Street banks with the highest centrality scores, meaning that they were the most heavily involved in the subprime industry, with more links to the lenders than other banks. All of them faced severe difficulties as a result of their involvement in this network, with Lehman Brothers actually failing.

The first graph becomes even more interesting when we compare it to the ego network of AIG and its counterparties in the mortgage-backed securities business and in municipal securities. The map in Figure 2 depicts the payments AIG made to its counterparties with U.S. government funds.

[insert Fig. 2 "AIG & Counterparties"]

In this spring-embedded ego network graph of AIG and its alters, we can see how heavily exposed AIG was to the banks involved in the subprime market. The width of the edge indicates how strong the tie is, with relationships worth more money indicated by thicker lines. We can thus see how the financial crisis could spread past American borders through a system effect—an indirect connection through which contagion can pass. AIG was overexposed to the most central actors in the subprime mortgage market—when they failed, so did AIG. Other actors were over exposed to AIG, and when AIG failed, they threatened to go under as well thus demonstrating the systemic risk that prompted the United States government to intervene. And as can be seen in the graph, the risk spread far: beyond the borders of the U.S. to banks in Europe and Asia, and beyond the banking system to U.S. state governments.

Policy Prescriptions

There are several advantages to using network analysis to regulate these financial entities. First, the very fact that they are watched could slow down this market. The financial health of banks or other actors that fit this definition could be more carefully scrutinized with stress tests (Investopedia 2009), and dismantled if necessary. The approach could also be scaled up in the future to examine global finance as Germain (2007) argues, thus eliminating the incentive to move these transactions offshore. Finally, Kyriakopoulos et al (2009) believe that the use of network analysis might be able to be used to detect fraud: unusual volumes or values of transactions, or other unexpected outliers, would send up red flags to system monitors indicating an investigation is in order.

There are other benefits from making network data available publicly: first, it creates a global mechanism that cannot be torpedoed by holdout nations. Security is a common pool resource, and those nations that choose not to make institution-level data available will be penalized by paying a premium to investors for the possibility that involvement with their institutions would endanger the rest of the system. Second, this legitimacy of this mechanism rests on the fact that it is representative and democratic—

by not depending on the institutions of the state, or on the creation of new international institutions, and by focusing on the relationships rather than the actors, it awards power to those who do the analysis, using information and methods that are openly (and freely) available.

Steps need to be taken to make it more difficult to “tip” the system in to catastrophe. A complex system that is subject to wild fluctuations is more vulnerable than a system that easily recovers from perturbations (Scheffer 2010). Increasing the capital standards including leverage ratio, liquidity requirements and capital conservation buffers, as in Basel III, is a start (Jones 2010). National regulation is also important, but more may not always be better in the case of government enforcement of financial regulations. Furthermore, enforcement will depend on information.

Network data is available; it is simply not reported as such. For example, the Bank of International Settlements calculates and publishes global figures made up of the aggregate national locational data from central banks in 43 countries. If the BIS were to publish the institution-level data from the central banks instead, as the International Monetary Fund points out (IMF *Global Financial Stability Report* 2010), the network could be mapped. The reporting is already standardized else it could not be aggregated meaningfully. New regulations to enforce data generation would not have to be implemented; the data just need to be made available to the public.

A systemic risk analysis can be performed on institution-level data using the methods of network analysis by anyone with the access to the data and a computer with internet access. There are many open source and free software packages available, making this type of risk analysis available to anyone who knows the methods, and allowing solutions to risk to be crowd-sourced. For example, other actors could require higher interbank lending rates (Akram and Christophersen 2010), higher yields on bond offerings, and so on, while evidence could be compiled supporting liquidation by a national authority such as the Federal Deposit Insurance Corporation (FDIC) in the United States.

To see if an institution was a suitable candidate for restructuring, we could look at how that actor performed in other financial networks. For example, if we also had more information on the network of those actors who traded credit default swaps, we might see that there were actors that appeared in both networks and were central in both. These are financial actors that are likely to need rescuing if they are not regulated because if they fail, as Delli Gatti, et al (2009) predicted, the resulting bankruptcy cascade of actors connected to them through downstream productive and credit relationships could take entire economies with them.

Conclusion

The context of contemporary globalization has been affected the global security governance of both human and traditional security. By opening the practice of security to nonstate actors, the Washington Consensus opened the theory of security to non-traditional concerns. The new constellation of actors that coalesced around the hegemonic idea of privatization constitutes a new historic bloc. This bloc can be graphed using the methods of network analysis, which can reveal opportunities for engagement.

Applying the methods of network analysis to economics and finance in particular reveals both immediate and indirect structural effects. Graphing these networks onto the axes of source, target, speed, and impact allows dimensional imaging and dynamic modelling, all of which are important when considering financial networks. Such analysis can be a valuable instrument for directing governance efforts.

Economic disaster can affect national security in several ways: first, it can undermine legitimacy by destroying the social compact: authority and taxation in return for full employment, as is more or less happening in Greece (Lewis 2010b). It can result in literal bankruptcy, as happened in Iceland (Lewis 2009). It can make raising funds on the bond market difficult or impossible (Fabozzi 2009), preventing the state from paying personnel or buying supplies including weaponry and energy. And finally, it can infuriate creditor nations, who may be motivated to use violence to salvage what they can from the mess.

Network maps can be used to make informed decisions about systemic risk in the global financial system. Investors can use them to rate the risk of individual institutions, based on their connections to other risky institutions and national regulators can use them to determine if and when an institution should be dismantled. Different states have different economic cultures, and would be comfortable with differing levels of risk.

One of the main obstacles to using network analysis in tracking transnational financial networks is the lack of data. The data is actually already gathered, first by central banks and then by international banks such as the Bank of International Settlements—this institution-level data needs to be made public. This will allow analysts to map the networks, and draw their own conclusions about the relative safety (or lack thereof) in the institutions. It is expected that such publication will meet with resistance. However, the alternative is allowing regulation to once again fall far behind reality, once again enabling disaster.

As in Pasternak's recital, the audience has a visceral awareness of the faults in the contemporary system of global financial governance. Network analysis can help us locate these faults more concretely, and design measures to prevent or mitigate their effects.

Figure 1: The Subprime 25 & Their Backers

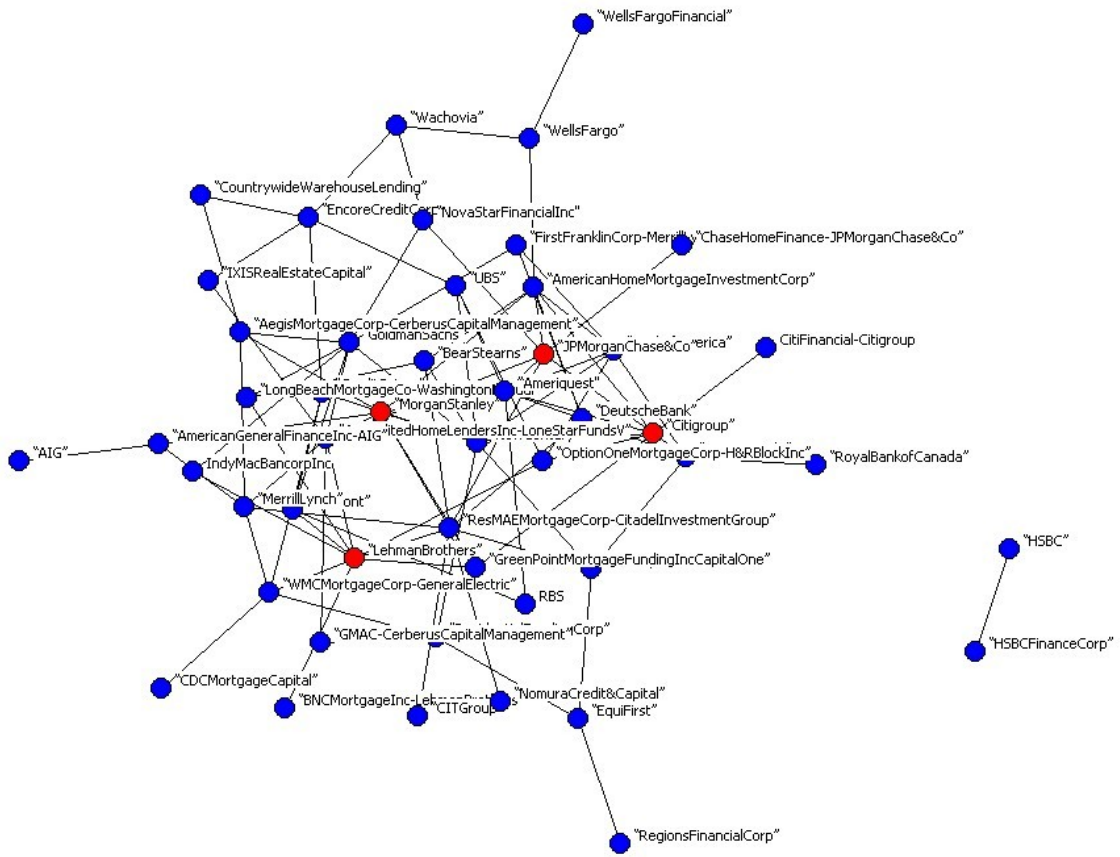
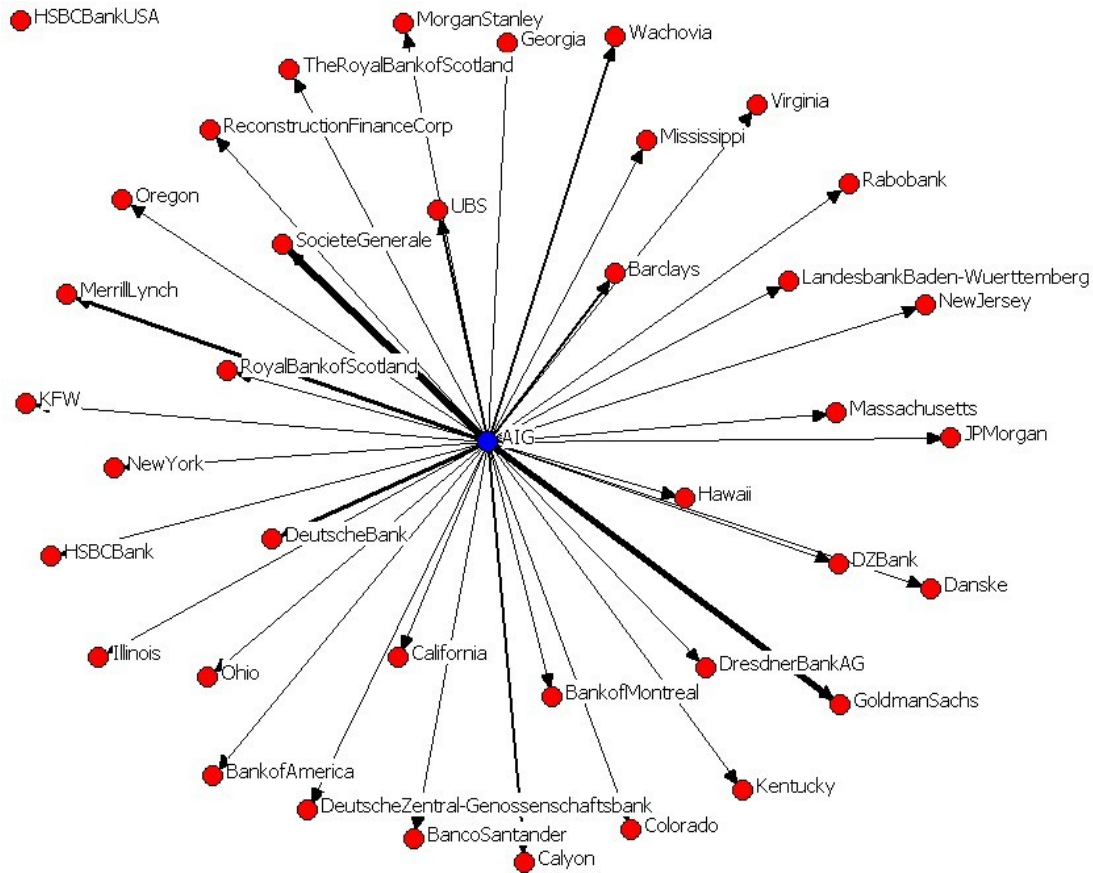


Figure 2: AIG & Counterparties



Bibliography

- Allen, Franklin and Ana Babus. "Networks in Finance," In *The Network Challenge*, edited by Paul R. Kleindorfer, Yoram (Jerry) Wind, and Robert E. Gunther, 367-382. Upper Saddle River, NJ: Wharton School Publishing, 2009.
- Akram, Q. Farooq, and Casper Christophersen. *Interbank overnight interest rates - gains from systemic importance*. Working paper. Oslo, Norway: Norges Bank, June 30, 2010. http://www.norges-bank.no/templates/article___77106.aspx.
- American International Group, Inc. "AIG Discloses Counterparties to CDS, GIA and Securities Lending Transactions." Press Release. March 15, 2009. http://www.aig.com/aigweb/internet/en/files/Counterparties150309RELonly_tcm385-155648.pdf and http://www.aig.com/aigweb/internet/en/files/CounterpartyAttachments031809_tcm385-155645.pdf
- Anonymous. "Impressions of Boris Pasternak." *The New Reasoner* Spring, no. 4 (1958): 86-90.
- Anon. 2009a. When will we get our money back? *BBC*, August 7, sec. Business. <http://news.bbc.co.uk/2/hi/business/8189516.stm>.

- Anon. 2009b. HBOS and RBS 'almost went under'. *BBC*, September 24, sec. Business. <http://news.bbc.co.uk/2/hi/business/8272858.stm>.
- Anon. 2009a. The Icesave Bill. *The Economist*, August 15.
- Anon. 2009b. When sovereign doesn't mean safe. *Economist* 393, no. 8660 (December 5): 16. doi:Editorial.
- Anon. 2009c. A second life. *Economist* 393, no. 8662 (December 19): 128. doi:Article.
- Anon. 2010. Is it a blizzard? *Economist* 394, no. 8664 (January 9): 52. doi:Article.
- Avant, Deborah. 2004. The Privatization of Security and Change in the Control of Force. *International Studies Perspectives* 5, no. 2: 153-157. doi:10.1111/j.1528-3577.2004.00165.x.
- Barnett, Michael, and Raymond Duvall. 2005. *Power in global governance*. Cambridge UK; New York: Cambridge University Press.
- Bernanke, Ben S. "FRB: Speech--Bernanke, Reducing Systemic Risk--August 22, 2008," n.d. <http://www.federalreserve.gov/newsevents/speech/bernanke20080822a.htm>.
- Bobbitt, Philip. 2002. *The shield of Achilles*. Knopf, May 14.
- Borgatti, Stephen P. "Centrality and network flow." *Social Networks* 27, no. 1 (January 2005): 55-71.
- Bremmer, Ian. 2009. State Capitalism Comes of Age. *Foreign Affairs* 88, no. 3 (May): 40-55. doi:Article.
- Castells, Manuel. 2000. *The rise of the network society*. 2nd ed. Oxford; Malden Mass.: Blackwell Publishers.
- The Center for Public Integrity. "Economic Meltdown - A Center for Public Integrity Investigation," May 6, 2009. http://www.publicintegrity.org/investigations/economic_meltdown/.
- Central Intelligence Agency. 1948. *The Significance of the World Federation of Trade Unions in the Present Power Conflict*. Washington, D.C.: Central Intelligence Agency, June 14. http://www.foia.cia.gov/browse_docs.asp.
- Chan-Lau, Jorge A. *Balance Sheet Network Analysis of Too-Connected-to-Fail Risk in Global and Domestic Banking Systems*. IMF Working Papers. Washington, D.C.: International Monetary Fund, April 2010a. <http://ideas.repec.org/p/imf/imfwpa/10-107.html>.
- Chan-Lau, Jorge A. *Regulatory Capital Charges for Too-Connected-to-Fail Institutions*. IMF Working Papers. Washington, D.C.: International Monetary Fund, April 2010b. <http://www.ingentaconnect.com/content/imf/imfwpa/2010/00000098/00000201/art00001>.
- Cox, Robert W. "Social Forces, States and World Orders: Beyond International Relations Theory". In *Neorealism and its critics*. by Robert Owen Keohane, Columbia University Press, 1986.
- Cox, Robert W., and Timothy J. Sinclair. 1996. *Approaches to world order*. Cambridge University Press.
- Crouch, Colin, and Wolfgang Streeck. 1997. *Political economy of modern capitalism*. Thousand Oaks, CA: SAGE.
- Delli Gatti, Domenico, Mauro Gallegati, Bruce C. Greenwald, Alberto Russo, and Joseph E. Stiglitz. "Business fluctuations and bankruptcy avalanches in an evolving

- network economy.” *Journal of Economic Interaction and Coordination* 4, no. 2 (5, 2009): 195-212.
- Fabozzi, Frank J. *Bond markets, analysis, and strategies*. Pearson/Addison-Wesley, 2009.
- Germain, Randall. “Global Finance, Risk and Governance.” *Global Society* 21, no. 1 (2007): 71-93.
- Goffman, Erving. 1974. *Frame analysis: an essay on the organization of experience*. New York: Harper & Row.
- Gordon Lubold. 2009. A drawdown of contractors in Iraq. *The Christian Science Monitor*, March 4. <http://www.csmonitor.com/USA/Military/2009/0304/p03s03-usmi.html>.
- Gore, Charles. 2000. The Rise and Fall of the Washington Consensus as a Paradigm for Developing Countries. *World Development* 28, no. 5 (May): 789. doi:Article.
- Gramsci, Antonio, and David Forgacs. 1988. *A Gramsci reader*. Lawrence and Wishart, November.
- Grier, Peter. 2009. US use of private contractors in war hits record high. *The Christian Science Monitor*, September 2. <http://www.csmonitor.com/USA/Military/2009/0902/p02s01-usmi.html>.
- Hanneman, Robert A. and Mark Riddle. *Introduction to Social Network Methods*. Riverside, CA: University of California, Riverside, 2005. <http://faculty.ucr.edu/~hanneman/nettext/>.
- Held, David. 2004. *Global covenant*. Wiley-Blackwell.
- Hoffman, Peter J., and Thomas George Weiss. 2006. *Sword & salve*. Rowman & Littlefield.
- Joll, James. 1977. *Antonio Gramsci*. Viking Press.
- Jones, Huw. “UPDATE 1-Basel agrees global too big to fail banks plan | Reuters.” *Reuters*, March 18, 2010. <http://www.reuters.com/article/idUSLDE62H2AF20100318>.
- International Monetary Fund. *Global Financial Stability Report -- Meeting New Challenges to Stability and Building a Safer System*. World Economic and Financial Surveys. Washington, D.C.: International Monetary Fund, April 2010. <http://www.imf.org/external/pubs/ft/gfsr/2010/01/index.htm>.
- Investopedia. “Supervisory Capital Assessment Program (SCAP) Definition,” n.d. <http://www.investopedia.com/terms/s/scap.asp>.
- Kyriakopoulos, F., S. Thurner, C. Pühr, and S.W. Schmitz. “Network and eigenvalue analysis of financial transaction networks.” *The European Physical Journal B* 71, no. 4 (2009): 9.
- Kuhn, Thomas S. 1970. *The structure of scientific revolutions. Second edition, enlarged*.
- Kunreuther, Howard. “The Weakest Link: Managing Risk Through Interdependent Strategies.” In *The Network Challenge*, edited by Paul R. Kleindorfer, Yoram (Jerry) Wind, and Robert E. Gunther, 383-398. Upper Saddle River, NJ: Wharton School Publishing, 2009.
- Lewis, Michael. “Wall Street on the Tundra.” *Vanity Fair*, April 2009. <http://www.vanityfair.com/politics/features/2009/04/iceland200904?printable=true¤tPage=all>.
- Lewis, Michael. *The Big Short: Inside the Doomsday Machine*. 1st ed. W. W. Norton & Company, 2010a.

- Lewis, Michael. "Beware of Greeks Bearing Bonds." *Vanity Fair*, October 1, 2010b. <http://www.vanityfair.com/business/features/2010/10/greeks-bearing-bonds-201010?printable=true¤tPage=1>.
- Lindblom, Charles Edward. *Politics and markets: the world's political economic systems*. New York: Basic Books, 1977.
- MacFarlane, S Neil, and Yuen Foong Khong. 2006. *Human security and the UN : a critical history*. Bloomington: Indiana University Press.
- Mathews, Jessica T. 1997. Power Shift. *Foreign Affairs* 76, no. 1 (February): 50-66. doi:10.2307/20047909.
- Mizruchi, Mark S. "Political Economy and Network Analysis." *Sociologica*, no. 2 (September 12, 2007).
- Morgenson, Gretchen, and Louise Story. 2010. Two at Fed Had Doubts Over Payout by A.I.G. *The New York Times*, January 27, sec. Business. <http://www.nytimes.com/2010/01/27/business/27aig.html?src=sch&pagewanted=all>.
- Morton, Adam David. 1999. On Gramsci. *Politics* 19, no. 1 (February): 1. doi:Article.
- Mousseau, Frederic. 2009. Toward a Future Without Want. *World Policy Journal* 26, no. 2 (Summer2009): 73-81. doi:Article.
- Murphy, Craig. 2005. *Global institutions, marginalization, and development*. Routledge.
- Naim, Moises. 2000. Washington Consensus or Washington Confusion? *Foreign Policy*, no. 118 (Spring2000): 86. doi:Article.
- National Intelligence Council. 2000. *Global Trends 2015a: A Dialogue About the Future With Nongovernmental Experts*. Washington, D.C.: National Intelligence Council, December. http://www.dni.gov/nic/NIC_globaltrend2015.html.
- Ostrom, Elinor. *Governing the commons: the evolution of institutions for collective action*. New York: Cambridge University Press, 1990.
- Owen, Taylor. 2004. Human Security -- Conflict, Critique and Consensus: Colloquium Remarks and a Proposal for a Threshold-Based Definition. *Security Dialogue* 35, no. 3: 373-387. doi:10.1177/0967010604047555.
- Paris, Roland. 2001. Human Security: Paradigm Shift or Hot Air? *International Security* 26, no. 2 (September 1): 87-102.
- Ruggie, John. 1998. What Makes the World Hang Together? Neo-utilitarianism and the Social Constructivist Challenge. *International Organization* 52, no. 4 (December 9): 855-885.
- Sassoon, Anne. 1987. *Gramsci's politics*. 2nd ed. Minneapolis: University of Minnesota Press.
- Scheffer, Marten. "Complex systems: Foreseeing tipping points." *Nature* 467, no. 7314 (2010): 411-412.
- Simon, Roger. 1982. *Gramsci's political thought*. Lawrence and Wishart, November.
- Smith, Eugene B. 2003. The New Condottieri and US Policy: The Privatization of Conflict and Its Implications. *Parameters: US Army War College* 32, no. 4 (Winter 3): 104.
- Stiglitz, Joseph E. 2003. *Globalization and its discontents*. W. W. Norton & Company.
- Kim, Sung Won, David P. Fidler, and Sumit Ganguly. 2009. Eastphalia Rising?: Asian Influence and the Fate of Human Security. *World Policy Journal* 26, no. 2 (Summer2009): 53-64. doi:Article.

- Thakur, Ramesh. 2004. A Political Worldview. *Security Dialogue* 35, no. 3: 347-348.
doi:Article.
- This American Life*. "The Giant Pool of Money." NPR, May 9, 2008.
<http://www.thisamericanlife.org/radio-archives/episode/355/the-giant-pool-of-money>.
- Tickner, J. Ann. 1992. *Gender in international relations*. Columbia University Press.
- Trumbull, Mark. "Who's really too big to fail?" *The Christian Science Monitor*, July 12, 2008. <http://www.csmonitor.com/Money/2008/0712/p25s18-usec.html>.
- Walsh, Mary Williams. 2009. A.I.G. Chief Owns Significant Stake in Goldman. *The New York Times*, April 17, sec. Business.
http://www.nytimes.com/2009/04/17/business/17liddy.html?_r=1.
- Wasserman, Stanley, and Katherine Faust. 1994. *Social network analysis : methods and applications*. Cambridge ;,New York: Cambridge University Press.
- Williamson, John. 1990. *The progress of policy reform in Latin America*. Washington, D.C.: Institute for International Economics.