Governing Global Finance:
Financial derivatives, liberal states and transformative capacity

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Global finance is simultaneously one of the most globalized and one of the most esoteric sectors in the world economy. Within global finance, perhaps no activity is more esoteric and more difficult to understand than the buying and selling of derivatives. Their names are familiar perhaps – futures, options, forwards, swaps – but their nature is obscure. Simply put, derivatives are financial instruments that are used to hedge risk. If a Canadian corporation knows that it will want to buy 50 million US dollars on foreign exchange markets in three months time, it can arrange a fixed price for that purchase using a financial contract called a derivative. In doing so, it lowers the risk of the price of the currency changing drastically before it purchases the amounts it needs.

Derivatives are important because they have become very big business in global finance. In a way, they epitomize globalization in that they permit individuals and firms to control price irrespective of time and place, and all for a known fixed cost. They have also become objects of speculation, leading to trillions of dollars sloshing around the globe on a weekly basis. The sheer sizes of the amounts involved and the difficulties in regulating the markets and the firms active in those markets have left the world financial system vulnerable to financial crises several times over the past decade.

This working paper explores the relationships between derivatives markets and the capacity of nation-states to govern. It focuses on a particular concept, 'transformative capacity' and asks whether nation-states can use such capacity to maintain some control over the effects of global markets like those for derivatives. The concept speaks to how well states can marshal resources within government and from civil society actors in defining a strategy for how to take advantage of opportunities in the global economy and how to cushion shocks derived from this economy. The paper argues that global

governance arrangements have supplanted to some extent the efforts undertaken by nation-states.

The Argument

The creation and spectacular growth of global, over-the-counter (OTC) derivatives markets might be expected to pose a very stern challenge to traditional modes of regulation by nation-states of financial markets. The challenge has two components. First, these markets are truly global in that they transcend borders (Scholte 2000); in fact, derivatives are financial instruments whose very purpose is to take some of the financial risks out of investing across borders. In this respect, OTC derivative markets do not obviously fall within the jurisdiction of one nation-state alone. The markets for these various types of derivatives are all transborder and thus the potential responsibility of any number of nation-states. Second, these markets are dominated and controlled by a relatively small number of complex, global financial services firms, that are active in most of the principal financial centers of the developed and developing world.

Prudential supervision and regulation of these firms thus poses a singular challenge for any given nation-state. If that state is capable only of supervising and regulating the activities of the given global firm within its own territory, it will have a very partial, and arguably inadequate, view of the financial health of that firm. What is more, the nation-state might worry that if its supervision and regulation were to appear too demanding to a given number of global firms, they might simply transfer aspects of their business to another financial center where the regulatory touch was more to their

liking. The signing and execution of over-the-counter derivatives contracts are also global acts in that they can be physically located in any number of places.

This paper investigates how two nation-states, the United Kingdom and the United States of America, have responded to the challenge of global OTC derivatives markets. These two states provide an interesting comparison because historically they approached the supervision and regulation of financial markets in contrasting ways (Coleman 1996). The US developed a regulatory style that relied on formal, statutory arrangements managed by independent, expert, bureaucratic agencies. In contrast, the UK preferred a more informal approach focused on self-regulation and almost collegial relationships between financial services firms and supervisory authorities. The comparison is also a worthwhile one because New York and London are the two largest centers in the world for OTC derivatives activity.

Our analysis of responses to this challenge relies heavily on the notion of transformative capacity developed by Weiss (1998). She argues that variations in transformative capacity across states help explain why some states are more successful than others in steering economic adjustment. Crucial to transformative capacity is the nature of the linkages between governments and economic sectors. Weiss (1998:15-16) stresses that states are not unitary and monolithic structures, but 'organizational complexes whose various "parts" represent different ages, functions and (at times) orientations' (Weiss 1998:15-16). Strategies for adjustment and change are formulated and implemented not by the state alone, but through policy linkages between relevant bureaucratic agencies and sectoral actors. Weiss (1998:38) describes this type of negotiating relationship as 'governed interdependence.' State actors and industry

representatives retain their autonomy, but negotiate and then agree to work toward broader goals set and monitored by state actors. As Weiss (1998:39) argues, 'Of central importance is the state's ability to use its autonomy to consult and to elicit consensus and cooperation from the private sector . . . Through its linkages with key economic groupings, the state can extract and exchange vital information with producers, stimulate private-sector participation in key policy areas, and mobilize a greater level of industry collaboration in advancing national strategy.'

Several factors are conducive to the kind of partnership at the center of such capacity. The state actors involved must have adequate expertise and a capacity to coordinate activities among themselves when necessary. The interest associations representing the firms in the sector must have sufficiently encompassing domains that they can speak for the large majority of the firms (Weiss 1998:60). Finally, negotiations between state actors and industry representatives must be institutionalized and regular rather than ad hoc and spasmodic.

When examined in light of these conditions, the prospect of having the 'governed interdependence' to meet the OTC derivatives challenge is higher in the UK than in the US. Although both countries have central banks and other state actors with expertise, responsibilities for relevant financial markets and firms are shared among a greater number of agencies in the US and these agencies have a long history of competing with one another for 'turf' rather than coordinating their efforts. Mirroring these divisions between the state actors is an interest associational system whose members often work to buttress their particular corresponding state actor, thereby reinforcing the cleavages within the state. Finally, the more informal, self-regulatory approach to supervision and

regulation in the UK operated on the basis of regular, institutionalized relationships between large financial services firms and the Bank of England. In contrast, the more formal approach to rule making in the US tended to lead to rather ad hoc, often adversarial relationships between industry representatives and state actors.

This difference in transformative capacity appears to have had several effects. The UK was able to draw up an approach to oversight of OTC derivatives markets that is both inclusive of the key players and accepted by them. The US has not agreed fully upon an approach, leaving some key market actors largely unsupervised. Second, to the degree to which the US has developed an approach to supervision, it resembles more the informal, self-regulatory approach favoured in London than the usual, statutory and formal American style. This similarity between the UK and the US responses to the challenge of global derivatives markets also raises the question whether the very global character of these markets and of their key players restricts the freedom of states to follow policy styles consistent with domestic institutional arrangements. Already before either state had developed a supervisory strategy, the market players themselves had set up a nascent 'private regime' (Cutler, Haufler and Porter 1999: Chapter 1) at the global level to organize market behaviour. This private regime was to expand in scope and complexity during the 1990s. Simultaneously, nation-states came to collaborate increasingly at the global level in an attempt to develop common approaches to supervision and regulation of derivatives. By the turn of the century, the private regime coexisted with some supranational agreements on information sharing and remarkably similar national approaches to supervision and regulation.

This argument is developed in several steps. First, I provide some elementary definitions of derivatives, noting the difference between those traded on exchanges from those sold over-the-counter, and then summarizing the size and location of markets. With these definitions in mind, the paper then explains how derivatives create financial risk and thereby pose a challenge to nation-states. The second section of the paper proceeds to examine, in turn, the respective responses of the UK and the US to these challenges, using the prism of transformative capacity. The third section then reviews the development of a private regime and the associated intergovernmental arrangements put in place at the global level by nation-states. The paper concludes with an analysis of the implications of the argument for understanding the role of states in the face of globalization.

Derivatives, Globalization and Risk

Types of Derivatives

A derivative is a financial instrument consisting of a contractual agreement between two or more parties that has a value to the contracting parties and an independent value on the open market (Singher 1995:1401). The value on the open market depends on the value of the underlying payments based on named assets, ratios or indices committed to by the contracting parties. This value, in turn, is *derived* from the performance of the named assets, ratios or indices depending on the terms of the contract. Thus as the value of the contractual payments rises or falls depending on the value of the underlying asset, rate or index, so too does the value of the derivatives contract. This layering and changeability of values of derivatives contracts give them an uncommon measure of complexity. In

fact, this complexity is sufficiently high that investment firms and banks hire persons with PhD degrees in mathematics or physics as well as financial economics to analyze the products.

Although the range of derivative products is now extensive, this paper focuses on the four most common types of contracts that account for most of the business activity: forwards, futures, options and swaps. A *forward contract* involves an agreement between two parties to buy or sell an asset at a specified future time (the delivery date) for a specified price. For example, suppose an American automobile manufacturer knew that it would need to buy machine tools worth 200 million Euros from a German firm in three months time. It might then contract with a bank to buy Euros in three months at a fixed exchange rate with the US dollar. From the company's point of view, the contract provides stability for future financial planning, reduces the risk of loss from adverse price changes in the exchange rate, and thus reduces the cost of doing business (Romano 1996:7). For the counterparty, the contract provides a guaranteed sale, plus the possibility of making additional profit depending on the performance of exchange rates over the three-month period.

Forward contracts have a long history in agriculture where, for example, grain merchants would contract with grain companies or cooperatives for deferred delivery of a given commodity at a price agreed to in advance. They became useful hedges against currency instability in the financial world after the collapse of the Bretton Woods system, which resulted in a significant increase in the volatility of exchange rates. In being private contracts between two (or more) counterparties, forwards are said to be sold 'over-the-counter' and thus are called OTC derivatives.

A *futures contract* is a standardized forward contract, that is, an obligation to buy or sell a specified asset at a specified future date for a specified price. No money changes hands until maturity. The standardization of futures contracts makes them readily transferable to third parties and thus suitable to be traded publicly on exchanges. Futures are written on a wide variety of physical commodities and financial assets including agricultural products, precious metals and natural resources, foreign currencies, and interest rates. In 1998, the six largest exchanges in rank order in the world were the Chicago Board of Trade (CBT), the Chicago Mercantile Exchange, the London International Financial Futures and Options Exchange (LIFFE), EUREX (Germany), the New York Mercantile Exchange, and BM&F (Brazil) (CFTC 1999:Table 2). The CBT introduced the first financial futures contract in 1975 (Romano 1996:12). Since that date, financial futures have grown exponentially in response both to volatilities in interest and exchange rates. The value of investments in financial futures now dwarfs the value of futures based on physical assets.

An *option* is a contract that gives the owner the right to buy or sell an asset at a specified price on or before a specified future date. As Romano (1996:40) notes, option contracts date from Phoenician and Roman contracts on the delivery of goods by ship. Traded options have been available since the eighteenth century in the US. The Chicago Board Options Exchange, a division of the CBT, introduced the first options traded on an organized exchange –stock options – in the mid 1970s. Options traded on exchanges today cover such assets as stocks, stock indices, currencies, government bonds, and futures contracts. Similar to futures markets, options on financial futures dwarf all other contracts. Like forwards, options may take the form of private contracts between

counterparties (over-the-counter or OTC contracts) or they may be traded publicly on exchanges. Options create a right, but not an obligation, to buy thus differentiating them from forward and futures contracts.

Finally, a *swap* is a contract between two counterparties to exchange a series of cash flows over time. The contract specifies the currencies to be exchanged, the rate of interest applicable, the payment timetable and various ancillary issues related to the relationship between counterparties. The usual swaps are on interest rates or exchange rates. Thus, the most common interest rate swap, termed the 'vanilla swap' involves one counterparty agreeing to make fixed interest rate payments to the other counterparty who makes floating rate payments in return. In this respect, a swap might be seen as a portfolio of forward contracts (Romano 1996:49). Like forwards, swaps are customized contracts that are traded over-the-counter and not on exchanges.

Swap contracts originated in loan agreements started in the UK in the 1970s that were designed to help the counterparties to avoid government controls on foreign exchange transactions. The US securities firm, Salomon Brothers, designed the first currency swap in 1979 for IBM and the World Bank. Interest rate swaps began in 1981, and were first publicized in a transaction by Deutsche Bank in 1982 (Romano 1996:50). More recently, commodity and equity swaps have become available. Similar to the other three basic types of derivatives, the growth in the value of swaps has exploded since their introduction in the late 1970s and early 1980s.

Derivatives and Globalization

Although there are important differences between each of these four basic types of derivative instruments, they share one property in common: they help interested actors to hedge price risk. They do so by transferring (for a price) the cost of bearing the risk from one party, who wishes to minimize exposure to risk, to another party who is willing to assume that exposure in order to make a profit. This need to hedge prices in financial markets is a direct response to changes in the international monetary and financial systems. As the monetary system has moved away from fixed exchange rates and the financial system has featured more open markets permitting significant fluctuations in interest rates, the risks associated with foreign exchange and interest rate volatility have escalated. Governmental and corporate actors have responded to this volatility by using derivatives to protect themselves from undue fluctuations in prices. Other financial actors have seen opportunities for profit through speculating on the likely changes in foreign exchange and interest rates as well as equities by buying and selling derivatives contracts. Speculators play an essential role in derivatives markets, because the demand of government and corporate actors for hedging is not always met by hedgers on the other side of the market.

Although financial derivatives are barely two decades old, their growth has been nothing short of spectacular. Reliable statistics on their growth only became available in the mid-1990s when the Euro-Currency Standing Committee (renamed the Committee on the Global Financial System in 1999) of the Group of 10 Central Bank Governors at the Bank for International Settlements (BIS) became concerned with the rising levels of risk exposure of global banks active in the derivatives field. Table 1 shows the estimated

values of over-the counter derivatives in the period of 1995 to 2000. The notional values have doubled from 47 trillion dollars in 1995 to over 94 trillion in June 2000. Counterparty credit risk has risen more slowly, but still is over 2 trillion dollars. Table 1 also shows that the notional amounts traded over-the-counter have continued to rise relative to those traded on futures and options exchanges.

Global OTC activity is distributed across a variety of financial centers. Table 2 offers an indication of this distribution in the late 1990s. The site of the largest value of OTC transactions is London (UK), followed by the United States and Japan. Based on 1998 figures, activity in West European countries accounts for close to one-half of OTC transactions in terms of value. The picture shifts when one examines the location of exchange-traded derivatives. Here the US remains the strongest player, with the three largest US exchanges accounting for 40.9 per cent of world volume. The largest European exchanges accounted for 30.1 per cent of volume in 1998.

Not only then are derivatives a response to changes in the international monetary system and to the liberalization of capital markets, but also they are globalizing in their own right. The spectacular growth of derivatives markets has involved the creation of new markets that are global in scope. As the Group of 30 (1997:6) notes, sophisticated firms like pension funds, insurance companies and banks are able ‘to raise or invest funds, exchange currencies, or change the attributes of assets around the globe and around the clock.’ Such large institutional investors have come to dominate financial markets and seek to allocate their assets across a global range of investment options.

To play in the global derivatives markets, firms need a global presence, high levels of technical expertise and sophisticated information and communication systems to

manage risks on a global scale. Integrated global financial firms with extremely complex financial and corporate structures have come to dominate these markets (Group of 30 1997:7). In its review of derivatives, the USGAO (1994:36) notes that 8 U.S. bank dealers accounted for 56 per cent of worldwide notional/contract amounts of interest rate and currency swaps. Within the US, the top seven domestic banks derivatives dealers accounted for 90 per cent of all US banks' derivatives activity. Similarly, when securities firms are examined, the top five firms accounted for 87 per cent of notional/contract amounts. Concentration appears to be lower for higher volume, lower risk derivatives than for lower volume, higher risk products.

Derivatives and Risk

Preliminary to examining the response of nation-states to the growth of financial derivatives, it is important to understand the challenges for governments arising from the types of risks created. We outline these challenges by examining, in turn, four types of risk associated with the buying and selling of derivatives: credit, market, legal and systemic.

Credit risk refers to the risk that a trading partner might not fulfill its obligations in full on a given due date or at any time thereafter. For example, in banking, when deciding to offer a loan to a customer, the bank always runs the risk that the customer will default on the loan. The same phenomenon occurs in securities markets where the seller of a bond issue might not be able to repay the principal of the security at the end of the contract. Credit risk differs for derivatives because their credit risk is not equal to the principal amount of the trade, but to the cost of replacing the contract if the counterparty

defaults. Assessing credit risk for derivatives poses additional difficulties because risks can be transformed much more quickly than is customary for banking and securities contracts due to shifts in the value of the respective underlying asset. These transformation processes are highly complex (Dale 1996:15). The situation is complicated further by the rapid changes in the value of derivatives contracts, which, in turn, change the degree of exposure to credit risk by counterparties daily, it not hourly.

Credit risk is a much more serious problem for OTC derivatives than it is for exchange-traded contracts. Exchange-traded derivatives benefit from various safeguards including multilateral netting with central clearing; margin requirements which provide a buffer against default; a reserve fund which the clearing house can draw upon when needed; and minimum capital requirements and other prudential rules (Dale 1996:Ch.6). Clearinghouses guarantee payments between the counterparties, thereby reducing further the possibility of credit risk. None of these kinds of safeguards exist for OTC derivatives.

Market risk refers to risks to an institution's financial condition that result from negative changes in price levels of exchange rates, interest rate instruments, equities, commodities and securities. The breakdown of the fixed exchange rate international monetary system, the resulting vast expansion in foreign exchange trading, the impact of unstable exchange rates on interest rates, and the trading of derivatives, securities and commodities in a number of linked markets have all added to the levels of market risk. Of course, many derivatives such as commodity futures or interest rate swaps have been designed explicitly to reduce such market risks. Even so, they do not return financial firms to anything like the *status quo ante* of the early 1960s.

The principal complicating factor for market risk is its measurement. An accurate measurement requires the use of modern computer systems and software that rely on highly advanced mathematical, statistical and database techniques. Finding an accurate evaluation is so difficult because values are influenced by many different factors. A portfolio of foreign exchange options, for example, will be affected by changes in exchange rates, interest rates and the length of time before the options expire (USGAO 1994:60). Again, these complications are particularly pronounced for OTC derivatives where the lack of centralized markets makes it difficult to assess prices. Dealers in OTC derivatives need highly sophisticated computer models to assess a product's value. Even when the market risk of derivative products is measured, the total market risk of a firm may still be unclear. Because derivatives are used in hedging other assets and liabilities, firms must assess the risk of both types of positions to determine market risk well. together.

Legal risk refers to the risk that a transaction proves unenforceable in law or because of inadequate documentation. These risks arise from such phenomena as different legal conditions being placed on netting arrangements in distinct jurisdictions, variations in bankruptcy procedures, distinct privileges given to government-owned entities in some states, and the legality of various complex derivatives transactions in given markets. Once again, this risk is particularly important for OTC transactions. These contracts are, in effect, private ones between counterparties. If something were to go wrong and the contract were to be unenforceable in the country of one of the counterparties, the other counterparty could face a serious loss.

Systemic risk refers to the risk of a sudden unanticipated event that would damage the financial system to such an extent that economic activity in the wider economy would suffer (Group of 30 1997: 3). The concentration of global markets activity in the hands of a relatively small number of global financial services firms raises concerns about systemic risk. For example, the outright collapse of a single, very large global conglomerate might trigger a financial shock because other large firms are likely to be directly exposed to the damaged firm. Or, market players might suspect the possibility of such a collapse and begin a series of panic-driven attempts to liquidate claims. Both the debt crisis in less developed countries in the early 1980s and the peso episode in Mexico in the early 1995 are examples of such international shocks.

Many experts believe that the phenomenal growth of derivatives markets has added significantly to the likelihood of systemic risk. The former general manager of the Bank for International Settlements, Alexandre Lamfalussy has noted: 'the phenomenal growth of derivatives and associated trading techniques has reduced the transparency of market participants' balance sheets and has obscured the transmission of disturbances across market institutions . . . . Market participants may not be in a position to impose the necessary discipline on financial institutions to prevent the risk of the build-up of systemic problems' (Cited in Dale 1996: 156).

Summary

Possible failures to protect against credit, market and legal risk raise the likelihood of systemic risk, thereby constituting the principal challenge faced by nation-states. The trigger for such systemic risk being actualized may be more likely in global OTC

derivatives markets for several reasons. First, large global banks dominate these markets. 'Given the close interrelation between banks in many derivatives deals and the role of banks in the payment system and financial intermediation, the failure of banks can have major effects on the entire economy' (Steinherr 1998:217). Furthermore, as these banks are global players, the world economy becomes a possible victim. Second, there is a high degree of concentration in these markets, a characteristic that increases the likelihood of contagion from one global firm to another. These large, but few, players have assumed a high number of financial positions with one another. What is more, these positions are highly leveraged; the replacement cost to total asset ratio is very high (Steinherr 1998:222). Consequently, it is also likely that a crisis experienced by one firm in this select group could trigger difficulties throughout the group. As these key global banks came into difficulty, the effects would be felt quickly in respective domestic financial services systems, triggering runs on deposit and investor insurance facilities. Third, the constant turnover in derivatives contracts means that such a crisis could happen very rapidly. Due to the increased linkages between financial markets across borders, turbulence in one area of the world could then spread very quickly to other areas (Steinherr 1998:223).

State Capacity and Derivatives Markets

The growth of global OTC derivatives markets poses a stiff challenge because the complexity of determining the risks being incurred is complex, thereby increasing the likelihood the states will be unable to perceive the threat of systemic risk in time. We investigate how states meet this challenge by examining their actions in the two principal

centers for these markets: the United Kingdom and the United States of America (see Table 2). In carrying out this analysis, we develop the following arguments. How well states meet the challenge of globalization is affected critically by their pre-existing institutional arrangements and thus their transformative capacity. We demonstrate that the UK dealt more expeditiously and more comprehensively with the OTC derivatives challenge than did the US. Second, the global character of the challenge is such that what one of these states (the US) chooses to do is affected by the choices of the other (the UK). In this respect, the higher adaptability of the UK may be constraining the US to behave somewhat differently than one might expect, based on past experience. Third, the *global* character of the OTC challenge dictates that states cannot address the challenge acting autonomously from one another. The growth of OTC derivatives markets has sparked a significant expansion of intergovernmental collaboration at the global level. This pooling of political power, however, remains somewhat of a weak match for the private authority constituted by the global banks and securities houses dominant in the markets. Consequently, a private regime has come to occupy an important place in the emerging arrangements for governance of global OTC derivatives markets.

These arguments are developed in two steps. First, we examine how the United Kingdom and the USA have been responding to the globalization challenge. This analysis is anchored in an evaluation of the transformative capacity available from pre-existing institutional arrangements in the two countries. In a subsequent section of the paper, the nature of intergovernmental arrangements at the global level is presented along with an analysis of the role of private authority in governance of global OTC markets.

The United Kingdom

Generally speaking, politics in the UK is society-centred, with broad disputes being resolved in an adversarial Parliament. Power is diffused to various independent centres where the vast majority of decisions are taken in an incremental fashion in reaction to events in society. When it has come to decisions relating to governance of financial markets, the general business culture in Britain has favoured keeping as much of this decision-making as possible in the private realm. The Anglo-Saxon liberal tradition encouraged a certain scepticism about government's competence in business affairs. Government should remain at arms-length, acting only in times of crisis when called upon by business (Dyson 1983:31). For financial services, this business culture translated into an ideology supporting `practitioner-based self-regulation'. It was assumed that only insiders would fully understand how markets work and how to keep a watch on practitioners. It followed that regulation should feature practitioners themselves in a prominent role.

When UK policy on financial markets was reformed through the Financial Services Act in 1986, this philosophy translated into a policy framework that differed in two key respects from that in the United States: all firms, without exception, were supervised and state responsibilities for such oversight were concentrated, rather than being divided and overlapping. The government’s new oversight agency, the Securities and Investments Board (SIB), was set up as a private institution with public powers, unlike the U.S. Securities and Exchange Commission, a statutory body. The new statute collected under its umbrella the sale of stocks and bonds, life insurance, collective investment schemes, and all other investment businesses. In contrast, each of these

tended to be regulated under separate statutes in the US. The central concept of the Act was authorization: any firm engaged in an investment business would need to be authorised by a recognised agency. The government concluded that some of the traditional practitioner-based oversight could be retained by having the authorization function delegated to self-regulatory organizations staffed by practitioners, funded by practitioners, and accountable to practitioners.

The structure of the Act itself predisposed policy-makers to look broadly at financial services, fully expecting that many of the various services would come to be offered by large financial conglomerates. The Act gained broad coverage through the use of the concept of 'investment'. Any person dealing in, arranging dealings in, managing or advising on 'investments' is carrying on an 'investment business' and must be either authorized or exempted under the Act. This definition included derivatives and these were subject to the Act, whether they were trade on an exchange or over-the-counter.

When the 1986 Act was fully implemented and the framework for wholesale markets was in place, the UK had transformed its system of state-finance relations into a more formal, corporatist structure. Although generally speaking this structure was more fragmented than that found in such continental European states as France and Germany, it did provide a basis for regular, informal discussions and consultation between major corporate actors, their interest associations, and the core agencies involved: the Bank of England and the new Securities and Investments Board. It was thus a relationship of 'governed interdependence' that was capable of responding quickly to the OTC derivatives challenge.

Section 43 of the Act, however, exempted wholesale markets in sterling, foreign exchange, and bullion from SIB authority. In November 1986, the Bank of England established a Wholesale Markets Supervision Division to supervise these itself. The Bank argued successfully that these wholesale markets served `professionals', and could be overseen using an even less intrusive, more collegial approach. The Bank moved to develop a capital adequacy test for each type of firm and an informal, voluntary code of conduct.

Over the course of the following decade, the UK took further steps to concentrate authority in its supervisory and regulatory system in order to take account of the scope of businesses being engaged in by large, financial services corporations. In 1991, it arranged for the merger of two of its self-regulatory organizations, the Securities Association and the Association of Futures Brokers and Dealers into one SRO, the Securities and Futures Authority. Most importantly, at the end of the decade, the government created a new comprehensive supervisory authority, the Financial Services Agency (FSA), which combined the responsibilities for securities markets held by SIB with those for banking carried out by the Bank of England. In essence, then, the FSA has under one roof the powers divided among the SEC, the Federal Reserve, the Comptroller of the Currency, the Federal Deposit Insurance Corporation, the National Credit Union Administration and the Commodity Futures Trading Commission in the US.

In 1999, the new FSA produced a revised version of the Bank of England's 'grey paper' outlining the rules for businesses exempted under Section 43 of the 1986 Act. All dealers in the familiar types of derivatives contracts – futures, options, forwards and swaps – were included. Such OTC dealers and brokers were expected to be large

'professional' firms. They had to abide by the London Code of Conduct, a set of rules drawn up earlier by the Bank of England in consultation with the firms, and to contribute to a compensation scheme for protecting investors from failures (FSA 1999). If the firm at issue was a large bank or securities firm, it would remain supervised by its 'lead regulator' and the grey paper rules would apply only to the units dealing with wholesale markets.

These arrangements ensured that every OTC derivatives dealer operating in London, whether independently or as part of a financial conglomerate, was supervised, albeit lightly and under non-statutory rules. Such supervision was expected to reduce the likelihood of problems dealing with credit and market risk. The unified framework put in place for financial conglomerates as whole entities was expected to equip the relevant authorities to deal with deal with any problems related to systemic risk.

The United States of America

The U.S. political culture has always frowned upon the concentration of power. Power is divided between the President and the Congress, between the courts and the President, and among agencies of the executive branch. Behind this separation of powers lies the notion that authority must be dispersed in order to produce good government and to avoid the abuse of power. Thus, when it comes to financial services policy, Congress has divided responsibility among several committees. The Senate Banking Committee had separate sub-committees for banking and for securities regulation. In the House of Representatives, the Banking Committee had jurisdiction over banking activities only. Securities regulation fell under the ambit of the Energy and Commerce Committee, with

the exception of futures and options, which were the responsibility of the Agriculture Committee. Securities, futures and options, and banking industry lobbyists thus each had their own particular `homes' for interest group pressure politics.

Within the executive branch, the Office of the Comptroller of the Currency in the Treasury Department is joined by several `independent' regulatory agencies: the Federal Reserve Board, the Federal Deposit Insurance Corporation, the National Credit Union Administration, the Commodity Futures Trading Commission (CFTC), and the Securities and Exchange Commission (SEC). The notion of an `independent' agency is broadly consistent with the idea of dividing rather than concentrating power. If there are lines of accountability, they will flow both to the President and the Congress; having two, often competing, superiors often reinforces independence rather than weakening it. These organizations are headed by a commission or board rather than by a single person. The collective nature of their leadership enables them to play both judicial and policy-making roles. As `independent' agencies, these organizations are expected to be more resistant to political pressures. Their existence often rests on the assumption that regulation is a complex and highly technical activity where a body of experts is needed to make policy and to arbitrate disputes. This assumption differs fundamentally from the British view that practitioners or market actors themselves are the principal repositories of expertise and thus that self-regulation is the better form of governance.

Finally, the combination of statutory law plus strong, independent regulatory agencies creates an environment for a legalistic policy style. According to Hoberg (1993), legalism becomes more likely when formal administrative procedures dominate with widespread access to information and rights to participate for all affected interests, when

interest groups support regulations and are willing and able to challenge these in the courts, and when government duties are clearly defined and are enforceable in court. Each of these conditions is met in financial services. Accordingly, the US system is much more disposed to favour formal, statutory state regulation over the more informal, less statutory and more practitioner-based self-regulation in the British system.

This fragmentation of authority when joined to highly pluralistic policy networks does not furnish the US policy system with strong transformative capacity. There are poorly developed coordinating arrangements between the various competing centres of authority in the executive branch. The financial services associational system is rent with competitive divisions, showing virtually no integrating structures that control competition for members or for the ear of political authorities (Coleman 1996:Ch. 3). Both political authorities and private sector actors espouse a philosophy of policy-making that assumes a strong boundary between state and civil society and that would seem contrary to the 'governed interdependence' Weiss views as central to transformative capacity. This assumption manifests itself in legislation like the Federal Advisory Committee Act, which precludes much of the informal consultation that takes place in other countries like the UK. It would also seem to rule out much of the informal, ongoing negotiations between business and the state required for anticipatory adjustment to international pressures and shocks.

This absence of transformative capacity hampered US policy-makers in devising strategies for the governance of OTC derivatives. It also left the door open to an eventual approach to governance that departed significantly from the usual US approach of formal, statutory state regulation. This surprising development has its origins in the complex

division of responsibilities among agencies in the financial services field. Generally speaking, the SEC had authority over securities trading and securities markets and the CFTC over futures trading and futures markets. Amendments to the Commodities Exchange Act in 1974 expanded the definition of a commodity to the point where it included virtually anything, including a security. In 1975, the CFTC approved a Chicago Board of Trade application to trade futures on Government National Mortgage Association pass-through mortgage-backed securities (USGAO 2000:5). The SEC immediately cried foul, arguing that securities fell within its jurisdiction, while the CFTC countered saying that futures fell into its jurisdiction. What to do then with a financial instrument that was both a security and a future?

As financial innovations continued to emerge in the 1980s and early 1990s, with many of them blurring the distinction between securities and futures, the disputes between the two agencies continued (Moore 1994:443; Benson 1991:5). The first of these conflicts was eventually resolved in 1982 in an accord between the SEC and the CFTC (the Shad-Johnson Jurisdictional Accord) that was subsequently ratified by Congress. The agreement furnished the SEC with jurisdiction over securities-based options while the CFTC oversaw securities-based futures, and options on futures.

Essentially untouched by the Accord, however, were many OTC derivatives. Consistent with its formal, statutory approach, the US did not permit trading of many of these instruments, unless it took place on a regulated exchange. Under pressure from the banks and other large firms who feared these rules would ensure much OTC derivatives business would slip away to London, the CFTC indicated in 1989 that it would take no action to regulate certain swap transactions (Moore 1994:461). Banks continued to press

Congress over the loss of market share in OTC derivatives because of the growing internationalisation of futures trading. In 1992, Congress responded by passing the *Futures Trading Practices Act* exempting qualified swaps transactions from the Commodities Exchange Act. The CFTC followed up in 1993 by issuing the *Swaps Exemption*. It also exempted from regulation certain hybrid derivatives instruments that had some characteristics of futures and options.

Despite these steps, at least two key problems remained. The 1992 Act, the terms of the Commodities Exchange Act and the interpretation of its mandate by the CFTC created legal uncertainties about future regulation of OTC derivatives markets in the US. It was not clear to market participants whether the CFTC might still decide to intervene in the future to regulate the swaps markets. Market players also feared that increased use of computer technology for OTC transactions might be construed by the CFTC as operating an electronic exchange and thus be deemed subject to CFTC regulation. In the words of the President's Working Group on Financial Markets (1999:6): 'These concerns force financial institutions to evaluate legal risks when developing new instruments and new risk-management initiatives and have the potential to reduce the flexibility and competitiveness of US financial markets.'

Second, the principal players in OTC markets are affiliates of banks regulated by the OCC and the Federal Reserve Board; broker-dealers regulated by the SEC, and futures commission merchants (FCM) by the CFTC. Some broker-dealers and FCMs have set up separate affiliates for OTC business as a further step to avoid regulation. Since the CFTC and the SEC regulate markets more than individual firms, the activities of these separate affiliates are essentially unregulated. In its 1994 report on derivatives,

the USGAO noted this gap and signalled its worry. The five major broker-dealers and the three largest insurance firms in this group accounted for about 30 per cent of US OTC dealers' total volume (USGAO 1994: 11). The USGAO and many members of Congress worried that this regulatory 'gap' might provide an opening for systemic risk, because these unregistered affiliates often held large positions in OTC derivatives markets. Evidence shows that some of these large positions were with another unregulated group of firms, hedge funds. Regulators simply did not have access to this information, a factor that added to the severity of the systemic crisis created by the near collapse of a very large hedge fund in 1998, Long Term Capital Management (LTCM) (USGAO 1999:4).

Moves in Congress and recommendations by the USGAO to bring these firms under some form of regulation were resisted by the Federal Reserve and the SEC, as well as by the industry. All argued that these firms were large and sophisticated and that the markets themselves would discipline their activities. They also reiterated the argument made by the President's Working Group on Financial Markets (1999): any attempt to regulate these firms or OTC derivatives activity more generally would disadvantage US firms in global markets. The lighter touch available in London appeared to dissuade US policymakers from following their long-standing, statutory, formal approach to regulation.

In summary, these developments in the US favoured a more informal, less statutory, more self-regulatory approach to regulation than is found in other domains of financial services. Conflicts between the Federal Reserve and the SEC on the one side and the CFTC on the other prevented policy-makers from closing the regulatory 'gap'. A small, but economically significant, group of firms were able to escape direct supervision

and regulation. Compared to the UK where all firms are supervised, the US is conceivably less well placed to deal with systemic risk arising from global OTC markets.[1]

Global Governance Initiatives

In his comments to a symposium on derivatives and risk organized by the Group of 30 in 1993, William McDonough (1993:17), then President of the Federal Reserve Bank of New York, noted, 'given the global nature of derivatives markets, only a global approach to these issues will succeed in the end.' In their assessment of the growth of 'private authority' in the international realm, Cutler, Haufler and Porter (1999:3) note, however, that working out such a global approach is by no means easy: governments have difficulty cooperating in the international realm and many of them are unwilling to extend their rule-making capacity beyond the nation-state. Both of these factors would seem salient in the governance of OTC derivatives. The attempts by governments to cooperate have been complicated by the very complexity of the issues involved, particularly when it comes to disclosure and transparency. Moreover, as the US and UK case studies above indicate, governments are uncertain about how far they should regulate OTC derivative markets. As the special arrangements in the UK indicate and as the unwillingness to extend the usual formal, statutory approach in the US suggests, governments believe that global financial services corporations should govern themselves The harsh realities of competition in global markets are expected to provide the discipline

[1] An analysis of the near-collapse and rescue of the hedge fund, Long Term Capital Management, in 1998 would provide support for this conclusion. Such an analysis would be complex and would be more appropriately carried out in a separate paper.

firms need to minimize their risk exposure. In this respect, these realities constitute part of an adequate substitute for state regulation.

In this section, we describe briefly the private international regime that global financial services firms have developed in the OTC area since the late 1980s. We then show how governments have cooperated at the global level in some additional steps designed to complement, but not supplant, that private regime.

Cutler et al. (1999:13) define a 'private regime' as 'an integrated complex of formal and informal institutions that is a source of governance for an economic area as a whole.' They add (1999:14) that these regimes are created by negotiation and interaction among firms within a given issue area, and generally incorporate a number of business associations, both national and international. This type of arrangement for OTC derivatives began to take shape in 1984 when a group of dealers frustrated with the amount of time negotiating a new derivatives contract for each trade got together in New York and formed the International Swap Dealers Association (since renamed the International Swaps and Derivatives Association [ISDA]). They began immediately to work on the task of standardizing swap documentation (Golden 1994:18). The association was chartered in 1985 and has grown to include 450 members from 37 countries on five continents. Its Board of Directors includes a virtual Who's Who of global banking: Merrill Lynch, Goldman Sachs, ABN AMRO Bank, Warburg Dillon Reid, Deutsche Bank, Dresdner Bank, Société Générale, Bank of America, Barclays Capital, J.P. Morgan, Banca Commerciale Italiana, Banco Santander, the Industrial Bank of Japan and Sanwa Bank among others. Headquartered in New York City, ISDA also has offices in London, Tokyo and Singapore.

The association defines its mission to be the promotion of practices conducive to the efficient conduct of business, the development of sound risk management practices, and fostering high standards of commercial conduct. It has pursued these objectives by first providing a Code of Standard Working Assumptions and Provisions for Swaps. This code was to evolve into the preparation of a Master Agreement for swaps transactions. This initial step of preparing a Master Agreement taken in 1988 has been followed by a complex series of additional agreements and supplementary documentation that cover bond options, commodity and energy transactions, credit derivatives, equity derivatives, and foreign exchange and currency derivatives. Governments now accept ISDA documentation as standard practice in the industry.

The activities of other associations have gradually supplemented the work of the ISDA. The Emerging Markets Traders Association (EMTA) has prepared its own master agreement for emerging markets derivatives transactions (McGrath 1994:21). Many optional provisions and choices under the ISDA agreement were not easily adapted to the customs and practices of emerging markets traders (Chamberlain and Saunders 1994:32). Noting the problem of managing risks across different financial product types and various industry master agreements, a group of associations created a Cross-Party Master Agreement in 2000.[2] This step was a partial response to a June 1999 report on improving counterparty risk management practices by the Counterparty Risk Management Policy Group, an alliance of 12 major globally active commercial and investment banks. Finally, The Futures Industry Association (FIA), the representative body of the derivatives sector in the US, worked out a series of recommendations on 'financial

[2] The Bond Market Association, the British Bankers Association, EMTA, the Foreign Exchange Committee, the International Primary Market Association, ISDA, the Japan Securities Dealers Association, and the London Investment Banking Association.

integrity' in 1995. Derivatives firms also agreed in 1995 upon a 'Framework for Voluntary Oversight' of their own activities that is relevant to credit and operational risk.

In short, the private OTC derivatives regime has put in place a series of documents and rules that have come to be the industry standard. These reflect ongoing discussions of credit, market and legal risk involving the relevant associations and governments. With these practices in place, governmental oversight at the domestic level appears to be light, if not absent, as the US and UK case studies have shown.

Complementing these self-regulatory actions taken by the derivatives firms themselves is an emerging intergovernmental consensus on risk management that devolves primary responsibility to the global firm itself. The change in philosophy on the part of governmental authorities was evident in documents released by the Basel Committee on Banking Supervision (BCBS) at the Bank for International Settlements (BIS) in 1995 in response to criticisms of its initial proposals to control market risk. In the past, banking supervisors, for example, could examine quarterly reports on banking assets and liabilities and draw some preliminary conclusions on the financial health of the firm. Alan Greenspan (1996:35) has noted, however, that this approach is no longer feasible. 'A generation ago a month-old bank balance sheet was a reasonable approximation of the current state of an institution. Today, for some banks, day-old balance sheets are on the edge of obsolescence. In the twenty-first century that will be true of most banks.'

In response to these changing conditions, financial services supervisors have decided if it is more effective to rely more on firms' own risk management information systems to protect against losses. Hence their activities are focusing increasingly on

firms' internal procedures rather than on after-the-fact results summarized on balance sheets. In response to this changed situation, the Group of 30 (1997:12) has urged global financial institutions themselves to take the lead in developing risk assessment frameworks. The Basel Committee has welcomed this advice and has begun to work closely with financial services firms on risk management protocols. Its approach is to identify 'best practice' and to publicize these widely. Reflecting a certain faith in market discipline, it believes that the markets will reward those firms whose practices are up-to-date and come closest to these ideal types (Padoa-Schioppa 1997).

These risk management practices will only be effective, however, if two conditions hold: the risks incurred by given firms are transparent and disclosed and there is a sharing of information between respective national supervisors on the activities of these global firms. Governments and the industry have taken some initial steps in both of these areas. Governments have put increasing pressure on the industry to develop common accounting standards for derivatives transactions. Currently, these standards vary across the key financial centers of the world. The International Accounting Standards Board, a Europe-based group, and the Federal Accounting Standards Board in the US have both worked on this problem, but have yet to come up with a common solution. Similarly, in developing a revised capital adequacy standard for banks that takes account of market risk, the BCBS has sought to encourage common practices for treating derivatives on and off the balance sheets of global banks.

The idiosyncratic and private character of OTC derivatives contracts has also meant that virtually no one knew how much activity was occurring in these markets. Transparency and disclosure do require some sense of the overall importance of this

business and the relative market shares of key global institutions. Beginning in the early 1990s, the BCBS and later the International Organisation of Securities Commissions (IOSCO) began to work on this problem. The Euro-Currency Standing Committee at the BIS encouraged the development of harmonized methods for collecting information on derivatives activity. With these harmonized methods, the BIS was able to publish a first survey of activity in OTC financial markets in 1996 (BIS-BCBS 1996). Subsequently, it has begun a series of regular statistical publications in this area, including semi-annual statistics on positions in the global OTC derivatives market and annual surveys of disclosures about trading and derivatives activities of banks and securities firms. With better knowledge and understanding of the extent of the activities of global firms, the BCBS and the Technical Committee of IOSCO have been able to publish recommendations for public disclosure of trading and derivatives activities (BIS-BCBS 1999). Government supervisors and central banks assume that such disclosure will permit market discipline to keep global firms derivatives business within acceptable levels of risk.

The collapse of Barings Bank PLC in 1995 following huge losses in derivatives markets incurred by a rogue trader in Hong Kong alerted governments to an additional problem. Mechanisms for the sharing of information on the activities of global firms were inadequate. In May 1995, representatives of regulatory authorities in 16 countries responsible for supervising the world's derivatives markets met at the invitation of the SIB and CFTC in Windsor, England. In the 'Windsor Declaration' that came out of this meeting, the parties agreed to increase cooperation among themselves, to develop procedures for sharing information, and to devise an approach for cooperation in

emergencies. The Technical Committee of IOSCO assumed responsibility for follow-up actions to the Declaration.

Simultaneously, the industry itself working through the Futures Industry Association convened a Global Task Force on Financial Integrity in March 1995 in response to the collapse of Barings. It included representatives of major international exchanges and clearinghouses, brokers/intermediaries (including futures commission merchants and other brokers) and customers from the following 17 jurisdictions: Australia, Belgium, Canada, France, Germany, Hong Kong, Italy, Japan, the Netherlands, New Zealand, Norway, Singapore, South Africa, Spain, Sweden, the United Kingdom and the United States. As a result of this task force, futures exchanges and clearing organisations developed a trigger-based agreement whereby the occurrence of certain agreed upon triggering events affecting an exchange member's financial resources or positions will prompt the sharing of information. On March 15, 1996, 49 futures exchanges and clearing organisations initially signed the related Memorandum of Understanding in Boca Raton, Florida at the same time as the signing of a companion regulatory declaration by 14 futures regulators.

Conclusion

The analysis in this study of the rather similar American and British supervisory approaches to the challenge of global derivatives markets suggests two possible explanations for this outcome. A first explanation might focus on the competition between financial centres in the global marketplace. London and New York are the two leading sites for the business of OTC derivatives. Drawing on its higher level of

transformative capacity, the British state was able to fashion a 'light' regulatory and supervisory approach for dealing with risks in these markets. Seeing themselves in competition with the United Kingdom as a financial centre, US policymakers sought consciously to avoid the subsumption of OTC derivatives activity under its existing regulatory structures. The CFTC exemption for selected OTC derivatives, the tolerance for a number of unsupervised affiliates of broker-dealers and FCMs working in OTC markets, and the reluctance to reform existing institutional arrangements to permit a single supervisory authority all exemplify somewhat special treatment for the supervision of OTC derivatives markets and of the firms active in those markets. Consistently, policymakers justified these exemptions by invoking a need to remain 'competitive' in global markets. Given the size of these markets in London, this invocation certainly implied that a measure of regulatory competition exists between the British and American states.

A competing explanation might focus upon the global character of OTC derivative markets themselves as a principal factor. The transcendence of national borders by these markets, their dominance by complex, global financial services corporations, and the development of a base of private authority organized by these firms all might be seen as leaving nation-states relatively little room for distinctive responses. Differences in the intensity of regulatory oversight could end up favouring one market over another, thus triggering significant economic losses and gains for respective nation-states. Differences in regulatory approaches would also compromise, if not completely undermine, nation-states' capacity to understand levels of risk in the global financial system. An inadequate understanding in this regard would hamper efforts to fashion

agreements on information sharing and the collection of data on exposures. Without the capacity to share information and to view levels of exposure on a global scale, nation-states are faced with the possibility of being unable to have early warning on unacceptable levels of credit, market and legal risk. In the absence of this early warning capacity, the likelihood, in turn, of systemic risk rises as well.

At this stage of study, it is difficult to say which of these two explanations is the more credible. The credibility that each possesses might suggest that new theories are needed that integrate factors associated with the transformative capacity of states and the level of globalization of markets. As Albrow (1997) suggests, globalization theory puts on the agenda a whole set of concepts and of ways of thinking and theorizing that were forged for a period when nation-state authority was much more dominant and monopolistic in the international system than it is today.

Table One: Global over-the-counter (OTC) derivatives markets, 1995-2000 (in billions of US dollars)

	Notional amounts*, June 1995	Gross market values, June 1995	Notional amounts, Dec. 1998	Gross market values, Dec. 1998	Notional amounts, June 2000	Gross market values, June 2000
Foreign exchange contracts	**13095**	**1048**	**18011**	**786**	**15494**	**578**
Outright forwards and forex swaps	8699	622	12063	491	10504	283
Currency swaps	1957	346	2253	200	2605	239
Options	2379	71	3695	96	2385	55
Interest rate contracts	**26645**	**647**	**50015**	**1675**	**64125**	**1230**
Forwards	4597	18	5756	15	6771	13
Swaps	18283	562	36262	1509	47993	1072
Options	3548	60	7997	152	9361	145
Equity-Linked contracts	**579**	**50**	**1488**	**236**	**1671**	**293**
Forwards and swaps	52	7	146	44	348	62
Options	527	43	1342	192	1323	231
Commodity contracts	**318**	**28**	**415**	**43**	**584**	**80**
Estimated gaps in reporting	**6893**	**432**	**10388**	**492**	**12163**	**400**
GRAND TOTAL	**47530**	**2205**	**80317**	**3231**	**94037**	**2581**
GROSS CREDIT EXPOSURE		N.A.		**1329**		**937**
Exchange Traded contracts	10310		13920		13904	

Sources: BIS (1998a, 2000)

**Notional amounts* outstanding provide a measure of the market risk faced by counterparties.
***Gross market values* provide a measure of counterparty credit risk

Table Two: Geographical distribution of reported Global OTC activity (in billions of US dollars, percentage of total in parentheses)

Country	**April 1995**	**April 1998**
Australia	25.7 (2.2)	31.6 (1.9)
Canada	23.1 (2.0)	33.6 (2.0)
France	54.9 (4.7)	98.5 (5.8)
Germany	56.0 (4.8)	86.7 (5.1)
Japan	138.6 (11.9)	123.3 (7.3)
Switzerland	46.7 (4.0)	63.0 (3.7)
United Kingdom	351.2 (30.2)	591.2 (35.1)
United States of America	163.6 (14.1)	293.8 (17.4)
Others	301.7 (26.0)	362.7 (21.5)
Total	1161.5	1684.4

Source: Based on BIS (1998b: Table C-3)

Table 3: Geographical distribution of trade volume on world futures and options exchanges, 1998

Exchange	**Country**	**1998 Percentage of World Volume**
CBT	US	19.2
CME	US	15.3
LIFFE	UK	12.6
EUREX	Germany	10.4
NYMEX	US	6.4
BM&F	Brazil	5.9
LME	UK	3.6
MATIF	France	3.5
TOCOM	Japan	2.9
SFE	Australia	2.0
Others		19.3

Source: CFTC (1999:Table 2c)

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