

Private Governance and Democracy in International Finance

William D. Coleman
Department of Political Science
McMaster University
1280 Main St. W.
Hamilton, Ontario, L8S 4M4
Canada

99/1

E-Mail: colemanw@mcmail.cis.mcmaster.ca

Home Page: <http://socserv2.socsci.mcmaster.ca/~polisci/faculty/coleman/coleman.htm>

Paper originally presented to the 10th Annual Conference on Socio-Economics, 13-16 July 1998, Vienna, Austria. The author would like to thank Rhoda Howard, Susanne Lütz, Tony Porter and the two anonymous referees of the Working Paper series for their comments on earlier drafts.

Abstract

The governance arrangements in international finance mirror, in part, those found domestically by featuring a partnership between relatively autonomous state agencies and private actors. Where they depart from domestic arrangements is in the relatively stronger position of private actors, particularly global financial conglomerates, in decision-making. Given the importance of the governance arrangements in international finance for the welfare of individuals and firms throughout the world, it is important to ask whether these arrangements conform to accepted criteria for democratic decision-making. Five criteria are identified that might be applied to international sites of governance. These criteria are then applied to three groups of institutions, the Bank for International Settlements (BIS), the International Organisation of Securities Commissions (IOSCO), and “private regimes” especially predominant in the derivatives subsector. Based on this analysis, important gaps are found when these governance institutions are held up to democratic principles.

Private Governance and Democracy in International Finance
by **William D. Coleman**

Over the past three decades, the protected character of domestic financial services markets and restrictions on capital movements have receded quickly and extensively. In the wake of these changes, cross-border exchanges between national banking, securities, derivatives and insurance markets have increased exponentially. Domestic markets themselves have lost many regulatory barriers that had segmented particular product markets and associated them with specialised financial intermediaries. Following quickly upon the growth of cross-border transactions, there developed new supranational markets no longer anchored in any domestic market. These expanded to a global scale. As the 1990s come to an end, these new global markets now feature transactions that run in the billions and trillions of dollars.

It is important to note that nation-states facilitated these changes, often at the instigation of their largest, most successful banks and securities firms. They did not simply respond or react to market innovations, but took decisions that helped open the door to financial globalisation. Admittedly, decision-makers might not have appreciated fully the consequences of their decisions. This lack of appreciation might, in turn, be traced to a relative absence of democracy in financial services policy communities. Fuller and more open domestic policy deliberations might have led states to adopt a more cautious and controlled approach to liberalisation. With the barn door now wide open, however, states and their citizens face a very important set of market changes where governance arrangements have developed “on the fly”, reactively, rather than in a planned fashion with some consideration given to the prerequisites for democratic decision-making.

In this paper, I argue that the governance arrangements in international finance mirror, in part, those found domestically by featuring a partnership between relatively autonomous state

agencies and private actors. Where they depart from domestic arrangements is in the relatively stronger position of private actors, particularly global financial conglomerates, in decision-making. These governance arrangements are important because they oversee markets where the risk of failure of financial firms is much higher than it was in domestic markets. With these higher levels of fragility of individual firms also comes a higher probability of systemic risk, that is, the likelihood that the failure of a given firm might trigger a financial crisis. Such a crisis might well resound throughout the world's financial system and undermine economic growth. Given then the importance of the governance arrangements in international finance for the welfare of individuals and firms throughout the world, it is useful to investigate whether these arrangements conform to accepted criteria for democratic decision-making. I conclude that there are important gaps when these governance institutions are held up to democratic principles.

This argument is developed in the following steps. First, the paper distinguishes between internationalisation and globalisation and shows how these processes have developed in parallel in the fields of banking, securities, and derivatives. Second, an assessment is made of the consequences of these processes for levels of risk in the financial system, showing that these levels have risen significantly. The paper then turns to examine governance arrangements in international finance, arguing that these conform better to the logic of internationalisation than globalisation. I also show how private actors representing global finance firms have a very strong position in these institutions. The final section of the paper turns to an evaluation of how well these institutions fit criteria for democratic policy-making. It begins by identifying five criteria that might be applied to international sites of governance and then applies these criteria to three groups of institutions, the Bank for International Settlements (BIS), the International Organisation

of Securities Commissions (IOSCO), and “private regimes” especially predominant in the derivatives subsector.

Globalisation and Financial Services

The use of the concept of globalisation in conjunction with discussions of changes in financial services marketplaces stands virtually unchallenged. In fact, the almost constant twinning of the two phenomena invites us to take a little care in specifying what globalisation might mean in financial services. For these purposes, the distinction between internationalisation and globalisation sometimes made in these discussions becomes a useful one (Scholte 1995; Hirst and Thompson 1995). Internationalisation refers to the growing number of cross-border relations between states and national economies. In this process, borders remain important and nation-states are understood to be the principal political actors. Indicators such as the ratio of external trade to GDP provide some basis for assessing changing levels of internationalisation. In contrast, globalisation refers to relations that transcend borders or that are less tied to territorial frameworks. Hirst and Thompson suggest that distinct national economies are subsumed and rearticulated into a new kind of system through these kinds of market transactions. Scholte (1995:428) adds, “global phenomena are those which extend across widely dispersed locations simultaneously and can move between places anywhere on earth pretty much instantaneously.”

The notions of transcending borders and compressing space and time also have implications for the organisation of market actors. The traditional multinational corporation relying on direct foreign investment is the ideal type associated with internationalisation. For globalisation, Scholte refers to a transnational corporation, one that takes its logic of organisation not so much from territorial boundaries, but from the maximisation of competitiveness in a global

space. Associated with this concept might also be some departure from hierarchical organisation to include strategic alliances between firms, and more non-market forms of inter-firm collaboration (Goodman 1997: 670). In short, in order to determine whether sectors might be seen as globalised or not, we need to look at whether markets have transcended borders, compressing space and time, and are being dominated by firms that themselves are organised according to a global rather than a territorial logic.

The fact that the processes of internationalisation and globalisation might occur simultaneously, which is the situation in financial services, can complicate this task further. Distinct national financial services systems remain in place in most states. In each state, one can point to systemic particularities, whether these be the Länder-Commune owned savings bank system in Germany, the presence of the Caisse de dépôts et consignations in France, or the limited branch banking historically found in the US. Nevertheless, cross-border relations between banks and securities firms within these national systems have grown significantly over the past 40 years. Beginning in the 1980s in particular, deregulation also led to the increased presence of foreign subsidiaries in virtually all national systems (Pauly 1988). Many of these subsidiaries have taken a form analogous to a branch plant in a multinational corporation in the goods production sectors.

The emergence of global markets in most areas of financial services business has run in parallel and complemented these internationalisation processes. A global bank lending market took shape with the development of eurocurrency lending in London in the 1960s. Since that time, such lending has grown consistently and gradually, reaching a total of 1.2 trillion dollars in 1997 (BIS 1998). Most of this transnational lending takes the form of syndicated loans involving the co-operation of banks and securities firms from a number of different nation-states. Foreign exchange markets have also taken on a global form. Not only do these markets now operate

twenty-four hours a day, but also they function simultaneously in many sites around the globe. Price making for the Deutsche Mark in Frankfurt will be taking place in conjunction with such activity in Tokyo, Sydney, Hong Kong, New York, Toronto or Paris. Buying and selling Deutsche Marks in Frankfurt is only a keystroke away for brokers in Philadelphia, Montréal or Singapore.

Securities markets also have taken a global form. For short-term securities, the Bank for International Settlements now keeps track of eurocommercial paper and other short-term notes. These markets have developed slowly, totalling about 193 billion dollars in the first quarter of 1998 (BIS 1998). To date, issues in US dollars have dominated these markets, with the prospect of the Euro monetary area leading already to a fairly active ECU/Euro short-term notes market as well. Longer term securities including international bonds and euro bonds have also grown significantly over the past decade, with announcements and net issuance reaching record levels of 342 billion dollars and 178 billion dollars in the first quarter of 1998 respectively. Issues of international equities rose from 3.5 billion dollars in 1985 to 45 billion dollars in 1994 (OECD 1995: 310). Perhaps most spectacular of all has been the emergence of global derivatives markets. A 1995 survey by the BIS showed the notional amount of over-the-counter derivatives outstanding was 41 trillion dollars, while 16.4 trillion dollars were outstanding in exchange-traded derivatives. Approximately 35 per cent of these contracts were with counterparties in other countries, giving a rough approximation of the global market in derivatives (BIS-ECSC 1996: 4, 13). “In summary, financial transactions are being increasingly conducted on a multi-currency, global level; the distinctions between various kinds of financial institutions and instruments are breaking down” (White 1996:6).

Thus, there now exist large and growing global markets for all principal categories of financial services: bank lending, foreign exchange, money market securities, longer term debt securities, equities, and derivatives. Associated with the growth of these markets has been the development of “integrated global financial firms with extremely complex financial and corporate structures” (G30 1997: 7). Various investigations by the General Accounting Office of the US Congress (USGAO 1994), the Group of 30 (G30 1993), the International Organisation of Securities Commissions and the BIS (BIS-ECSC 1996) have all shown that the growing volume of business in global financial markets is heavily concentrated in a relatively small number of institutions. These financial conglomerates normally have a universal bank at their core and then various subsidiaries and affiliates specialising in particular markets, often functioning under divergent regulatory systems and cultures.

Upon reflection, such concentration is not particularly surprising. Only very large firms will have the resources needed to locate in strategic sites around the globe. Such firms are more likely as well to have the technical capacity, the expertise and the information and communication systems that are needed to manage risk on a global basis. Given the extremely large amounts of money represented in daily foreign exchange and derivatives transactions, contracting firms and investors will be interested in reducing the level of counterparty risk. Market actors will assume that the larger and the more established the firm, the lower the counterparty risk. Such assumptions foster a kind of virtuous cycle that continues to favour a select number of global financial firms. These same firms will also retain a strong presence in traditional national markets.

Risk in Financial Services

The increased internationalisation and the globalisation of financial services have decided impacts on the nature and the levels of risk present in financial markets. In fact, these changes in the financial markets have elevated the concept of risk to an even more central place in financial services policy-making. In this section, I review the various types of risk and note the impact on them of internationalisation and globalisation.¹

Credit risk refers to the risk of a trading partner not fulfilling its obligations in full on a given due date or at any time thereafter. In banking, credit risk is the most common and best understood. In 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 equal not to the principal amount of the trade, but to the cost of replacing the contract if the counterparty defaults. Derivatives pose additional difficulties because risks can be transformed much more quickly than is customary for banking and securities contracts and these transformation processes are highly complex (Dale 1996:15). This speed and complexity diminishes the transparency of financial markets, adding significantly to the difficulty of assessing credit risk of derivatives products.

The minimisation of credit risk depends heavily on the availability of information about the given counterparty. Since many of the risks in international and global markets involve transactions between financial services firms only, the most important information pertains to the relative financial health of given firms. Within national markets, this information is normally readily available through either public supervisory authorities or more informal, long-established personal working relationships. Credit risk rises in international transactions because information

is less readily available on counterparties. International business relationships are less personalised and embedded in a history of transactions, and the collection of information is complicated by differences from one jurisdiction to another. The relatively larger size of the financial obligations involved in global markets adds further to risk and the consequences of a failure.

Market risk refers to risks to an institution's financial condition that result from negative changes in price levels or price volatilities of 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 are designed to reduce such market risks, but they do not return financial firms to anything like the *status quo ante* of the early 1960s. In the internationalising and globalizing setting, market risks have increased in significance and forced firms and supervisors to consider much more systematic approaches to controlling and absorbing these risks.

Settlement risk is the risk that a settlement in a transfer system does not take place as expected. Generally, this problem occurs when one party defaults on its clearing obligations to one or more counterparties. This default may be the result of an inability to meet the full value of an obligation (credit risk) or of a temporary lack of funds that would be remedied in the future (liquidity risk). With increased internationalisation and globalisation, this type of risk has risen significantly in importance in foreign exchange markets in particular. We know that average daily turnover in global currency markets is somewhere between 1 and 2 trillion dollars. Individual foreign exchange trades thus have very high values. One can easily imagine that if Bank A

defaults on a contract of 900 million dollars with Bank B, then Bank B might be forced to default in further contract with Bank C because it had assumed the liquidity of its contract with Bank A being available. The collapse of the German Herstatt Bankhaus in 1974 illustrated early on the immense difficulties arising from this kind of risk. More recent financial difficulties involving the US investment bank Drexel Burnham Lambert in 1990, Bank of Commerce and Credit International (BCCI) in 1991, and Barings in 1995 all involved cross-currency settlement risk. This type of risk has forced supervisors and firms to examine much more closely clearing and settlement systems for all kinds of securities and derivatives.

The increased global character of the sector has also highlighted two further types of risk. *Legal risk* refers to the risk that a transaction proves unenforceable in law or because of inadequate documentation. Specifically, 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. *Operational risk* refers to the risk of financial losses arising from poor internal informational and control procedures within individual firms. This type of difficulty was highlighted in the collapse of Barings when it was shown that the firm lacked internal controls on its own operators and procedures that would have segregated the transactions of individual dealers from those of other dealers. As financial markets become more complex and firms take on conglomerate structures so as to enter all the available markets, operational risk increases in importance.

In short, the internationalisation and globalisation of financial markets have added considerably to the degree of risk in the financial system. The concentration of global markets activity in the hands of a relatively small number of global financial services firms accentuates the

degree of risk further. The combination of this market concentration and higher risk levels raise concerns about one final type of risk. *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 (G30 1997: 3). Such a financial shock might occur because of actual direct exposure to the damaged sector—for example, the outright collapse of a single, very large global conglomerate. 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 early 1995 are examples of such international shocks. Analysis may eventually show that similar phenomena were behind the Asian crisis in the late 1990s.

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).

Governance in domestic, international and global financial markets

The higher levels of risk in the world’s financial systems invite some assessment of governance arrangements and their appropriateness for managing risk. In beginning such an assessment, it is useful to note how nation-states have facilitated internationalisation and globalisation. These

processes, in turn, have changed governance patterns at the domestic level. With these changes understood, we are better prepared to turn our attention to governance at the international level.

Domestic level processes

Nation-states have facilitated internationalisation and globalisation in two ways. First, they have encouraged the deepening and diversification of domestic banking and securities markets (Coleman 1996). Through deregulation and market desegmentation, governments have broken down the barriers between different types of banking firms—commercial banks, savings banks, financial co-operatives, building societies—and the various specialised markets each of these had served. Rapid market innovation in types of securities began to blur the distinction between banking and securities, leading countries like the United Kingdom, France, Canada, Australia, and to a lesser extent the United States to remove legislative barriers between banking and securities. Consequently, a significant advance of the universal bank model throughout the OECD countries (Coleman 1996; Story and Walter 1997) has accompanied deregulation and desegmentation. Universal banks provide a basic core structure for most of the financial conglomerates active in global markets.

Second, nation-states facilitated the development of international transactions and global markets. Agreement within the OECD on Codes of Liberalisation of Capital Movements and Current Invisible Operations were central in enabling global markets to grow rapidly. The Canada-US Free Trade Agreement and then the NAFTA provided a legal basis for the principle that all firms providing financial services should have equal access to all customers in participant countries (Porter 1997). White (1996) adds that the principles in the agreement gave an explicit push to universal banking and multi-state branch banking. An endorsement of similar principles is contained in the Second Banking Directive and the Investment Services Directive of the European

Union (Story and Walter 1997). Finally, the Financial Services Agreement of the WTO extended national treatment principles to an even broader global scale.

These types of changes have brought important changes to policy-making at the national level. Policy-making evolved from an ‘esoteric’ style: private, informal and technical (Moran 1986) to one that highlighted administrative rationality, expert information systems, and formalisation of procedures (Moran 1991, Coleman 1996). In this respect, the state increased its visibility and its statutory and regulatory intervention in the sector (Lütz 1998). This intensification of state activity, however, created a new kind of esoteric politics where still only a privileged few participate: professionals working for financial services firms, and officials housed in finance ministries, supervisory offices, and central banks (Coleman 1996:Ch. 10).

Reconstituted banking and securities policy communities featured new types of corporatist relationships, with a rough balance of power between firms and the state (Coleman 1996: Ch. 4; Josselin 1997:192-3; Moran 1991:13).

Governance Models: Internationalisation and Globalisation

The governance arrangements at the international level that have facilitated and responded to internationalising and globalising pressures feature both intergovernmental processes and self-regulatory initiatives by global financial firms. In fact, they differ from those at the domestic level in the importance of private, self-regulatory systems and in the increasing initiative taken by global firms. The balance of power appears to favour increasingly these global firms, with states playing an ancillary and facilitating role. Before assessing governance arrangements at the international level, it is useful to return to the distinction between internationalisation and globalisation. These processes pose distinctive demands on governance processes.

Internationalisation refers to increased cross-border transactions, with nation-states and domestic markets remaining important loci for firms. We can assume that financial services firms will take on multinational forms with branches or subsidiaries active in various states outside the home state of the firm. The supervision of risk taking under conditions of internationalisation requires an agreement on a division of labour between respective national supervisors. The Basle Concordat of 1983 and the Second Banking Directive and the Investment Services Directive in the EU show a division where the home country of a bank or a securities firm assumes primary responsibility for oversight (Porter 1993; Story and Walter 1997). It is understood to be best placed to view the overall operations of the firm. The host country for subsidiaries and branches supervises their local activities, sharing information with the home country. For this approach to work well, intergovernmental negotiations and agreements become a necessity. Respective national supervisors will need to agree on what information is important and how that information is to be collected and organised. Agreements on common regulations for each category of risk will assist cross-national supervision further by reducing the likelihood of a regulatory “race to the bottom”. Governments should also agree upon common approaches to supervision. Finally, since the boundaries between banking and securities are blurring in the respective national market places, these supervisory agreements will need to occur domestically between agencies with responsibility for banking and securities, a type of co-ordination that will need to be extended to the international plane.

Oversight of firms engaged in derivatives markets is more difficult to conceptualise in an internationalising context. Such a context assumes that activity can be located in a given nation-state and that transactions will take place across borders. Because derivatives are hedges against various sorts of market risk in particular, their whole purpose is to abstract the risk out of a

locational and temporal context. Where this abstraction process takes place on an institutionalised exchange, that exchange can become a site for regulation and oversight. The majority of derivatives contracts, however, take place over-the-counter which means their location is best understood to be with the transacting parties, who may be operating anywhere in the world. In this respect, derivatives appear to fit better with the concept of globalisation than with internationalisation.

When the focus shifts from intensified exchanges between national financial systems to exchanges in global markets, the implications for governance change. Extending Begg and Green's (1996) analysis of regionalisation of markets in the EU, globalisation would appear to trigger a need for a supranational regulatory and supervisory authority. First, as the global financial area becomes more integrated, the danger of worldwide systemic risk rises. Second, the size and scope of global markets will aggravate the asymmetry of information between depositors and financial intermediaries and would seem to call for more robust supervision at a global level. Third, the prevention of extreme market concentration and the smooth operation of the payments system would be enhanced with some transfer of authority upward. Currently, these problems rest with intergovernmental arrangements providing governance by committee. It is doubtful that such a committee approach will be able to cope quickly and comprehensively when faced with a crisis. Such committees might also face serious obstacles when it came to enforcement of their agreements.

These problems might be addressed in two ways. First, it is possible that the intergovernmental fora currently in place might increasingly foster the shared normative beliefs and commitments that might be associated with an international "regime". Backed up by possible epistemic communities of risk and systems analysts with an expertise in financial services located

in central banks, private firms and policy institutes, these regimes might develop the capacity to co-ordinate action by nation-states in times of crisis.

A second possibility would involve autonomous institutional development at a global level. One would need a global lender of last resort facility; a capacity to enact binding regulations pertaining to credit, market, settlement and legal risk that would apply to all global firms; and a means to supervise the observance of regulations and of prudential behaviour by global firms. In banking, there would likely need to be agreement on a depositor protection scheme covering all deposit liabilities in these global banks. Admittedly, the problem of moral hazard will plague reaching any such agreement. In the area of securities, the global agency would need a capacity to define common regulations pertaining to credit, market, settlement and legal risk. Abstracting from the national level, it is likely that such a global entity would work in conjunction with a set of self-regulatory organisations responsible for defining market rules and overseeing their observance. This global financial services supervisor would oversee clearing and settlement systems, probably in private hands. Whatever oversight takes place of derivatives would presumably also be the ultimate responsibility of this global agency.

Assessing Supranational Governance

Table 1 attempts to provide a summary of governance arrangements for banking, securities and derivatives categorised against types of risk. None of these arrangements approximates a model that involves autonomous institutional development at the global level. Those in banking may be close to constituting an international regime (Porter 1993). That said, governance arrangements have evolved to a point where they can address problems arising out internationalisation, particularly with respect to credit and market risk.

A formal accord was reached by the Group of 10 countries on capital adequacy as it bears upon credit risk in 1988, working through the aegis of the Basle Committee on Banking Supervision (BCBS) (Porter 1993). This accord was extended to cover market risk in 1996. Although this accord applies to international banks only, it has implications for securities firms because many of these either are part of universal banks or are operated as subsidiaries by these banks. A separate capital adequacy agreement for securities firms exists in the EU (Coleman and Underhill 1998; Story and Walter 1997), but such an agreement has still not been reached at the international level by the International Organisation of Securities Commissions (IOSCO). In addition to the formal BCBS accord on capital adequacy, the Committee, often working in conjunction with IOSCO, has also developed an increasingly long list of documents providing guidance to firms and to supervisors on such problems as large credit exposures, country risk, foreign exchange positions, interest rate risk and off-balance sheet exposure. All of these initiatives presume an intergovernmental logic of governance, but perhaps as well an increasing set of shared norms and policy prescriptions characteristic of an international regime. The publication by the BCBS of a document outlining “Core Principles for Banking Supervision” (BIS–BCBS 1997) and the Committee’s creation in 1998 of an Institute for Financial Stability provide empirical support for this conclusion. The Institute will provide seminars and other information to national officials in central banks and supervisory agencies from across the globe.

Table 1 also indicates that when it comes to the “infrastructure” of the international financial system, particularly clearing and settlement, self-regulatory “private regimes” largely are in place. Private regimes refer to integrated complexes of formal and informal non-state institutions that serve as a source of governance for an area of economic, social or cultural activity (Cutler, Haufler and Porter 1999). Many of the institutions involved in these regimes are

organized at the global level. For example, the Society for Worldwide Interbank Financial Communications (SWIFT) is a commercial organisation maintained by financial firms that oversees technical standards that allow the exchange of electronic messages. International central securities depositories such as Cedel and Euroclear provide specialised settlement services for international or cross-border securities transactions. IOSCO and the private International Accounting Standards Committee are seeking to reach an agreement on common accounting standards for all securities firms.

Private regimes are also the dominant organizational form for monitoring and supervising risk in derivatives markets. BCBS and IOSCO cooperated with firms to provide guidelines on disclosure and risk management in 1994, but these are voluntary in character and are not part of the formal intergovernmental accord on capital adequacy. The same year, the UK and the US reached an agreement on how to oversee OTC derivatives transactions, a minimal intergovernmental step. These efforts are complemented by the Master Agreement on trading that the International Swap Dealers and Derivatives Association (ISDA) promotes among its members. It was first announced in 1987 and was subsequently amended in 1992 and 1998. The Futures Industry Association (FIA), the representative body of the derivatives sector in the US, worked out a series of recommendations on “financial 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.

The classification of categories of risk by financial institution in Table 1 itself reflects the legacy of financial services firm structures and regulatory patterns at the level of the nation-state. This legacy has fostered separate intergovernmental structures at the international level for banking, securities and derivatives, a development not particularly suited to global markets where

the dominant organisational type is a financial conglomerate. Often built around a universal bank, these conglomerates operate in virtually all international banking, securities and derivatives markets. As deregulation has proceeded at the domestic level, they have also taken on more activities in the field of insurance. Early in 1996, the three intergovernmental bodies responsible (BCBS, IOSCO, International Association of Insurance Supervisors [IAIS]) came together in the Joint Forum on Financial Conglomerates. The Joint Forum has reviewed various approaches for information exchange between supervisors. It has also looked at ways to enhance supervisory co-ordination, focusing in particular on the idea of one supervisory authority taking on the function of "co-ordinator". To these ends, in February 1998, the Joint Reform released a series of discussion papers on capital adequacy, prudential management, information sharing, and identifying a co-ordinator.

Even these minimal efforts to construct a structure on intergovernmental principles to manage globalised markets hide an important shift in regulatory philosophy that involves devolving authority on financial services firms. The change in philosophy on the part of governmental authorities was evident in documents released by the BCBS 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 they will need to rely more on firms' own risk management information systems to protect against losses. Hence their activities will focus on firms' internal procedures rather than on after-the-fact results summarised 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 Basle 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 publicise 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). The Federal Reserve Board in the US has considered taking further advantage of market discipline. Beginning in 1998, it permitted international banks to use "value at risk" models which estimate a loss probability distribution for an entire market portfolio over a time horizon of typically one day. Portfolio managers are then asked to operate within constraints based on these estimates (Phillips 1997). The Federal Reserve is also considering the so-called "pre-commitment approach" for capital for market risk. Banks would commit to a capital level to protect against market risk in their trading accounts. If cumulative losses during a given time period exceeded the specified capital, banks would be subject to significant penalties. The hope is that banks will set fairly high capital levels in order to avoid paying these penalties.

In summary, the governance of cross-border and global financial markets features significantly more self-regulation and delegation of responsibility to financial services firms than was common at the nation-state level. As globalisation has proceeded, these "private regime" characteristics of global financial governance have become more rather than less prominent. It is

questionable whether intergovernmental structures and private regimes are adequate to the task of prudential regulation and supervision of global markets. Somewhat less questionable is the apparent developing international regime in the banking area, centred at the BCBS. None the less, this regime still must work with intergovernmental forums like IOSCO or private regimes to encompass the breadth of financial services activity.

The adequacy of these arrangements has surfaced as a concern among the world's economic powers, especially after the Asian crisis. Some have reflected on giving the IMF lender of last resort responsibilities (Financial Times 1998; Krugman 1998). Others have called for the creation of a global financial services regulatory capability, perhaps housed at the IMF or World Bank (Martin 1998). For now, however, it is evident that citizens of the world must trust in global financial firms to oversee their own activities well and to act prudently. There is no public institution available that can really provide any further guarantees of prudential behaviour. Nor is there sufficient governance capacity to cope quickly and well with a systemic financial crisis on a global scale.

Financial Services Governance and Democracy

Given the high stakes for financial services firms, for consumers and for the economic well-being of individuals throughout the world, it is appropriate to ask whether the mix of intergovernmental arrangements, international regimes and private regimes in international finance are "democratic." This question poses analytical difficulties immediately because, as Held (1995) has observed, democratic theory has assumed that the nation-state is the relevant decision-making unit. States are supposed to have the capacity to make all the crucial decisions on the welfare and the

redistribution of wealth affecting citizens. Hence institutional mechanisms to ensure accountability and legitimacy are located within the nation-state itself.

Held proceeds further, however, and considers how the concept of democratic governance might be adapted in light of globalisation. He offers the concept of the “principle of autonomy” as an alternative to the thesis of the sovereignty of the state and the sovereignty of the “people” within states (1995:147):

persons should enjoy equal rights and, accordingly, equal obligations in the specification of the political framework which generates and limits the opportunities available to them; that is, they should be free and equal in the determination of the conditions of their own lives, so long as they do not deploy this framework to negate the rights of others.

Held adds that this definition expresses basically two ideas: individuals should be *self-determining*, and democratic government is *limited* in that it upholds a legally circumscribed structure of power. Democratic autonomy thus presumes that a person’s rights will be protected and that there will be a defined process for deliberation over possible decisions. In these respects, democratic governance at a supranational level should be *constitutional* government anchored in *public law* (Held 1995: 155-6).

Scharpf’s (1997) recent work on policy-making, particularly where it focuses on horizontal co-ordination within policy communities, provides us with further guidance on assessing the likelihood of democratically acceptable outcomes. He notes that the legitimacy of policy outcomes becomes problematic where these are biased. To be democratically acceptable, policies must satisfy some notion of a “common good”. To do so, they must address simultaneously two dimensions, welfare generation and distributive justice. Abstracting then from

Coase's theorem on bargaining, he argues (1997:116) that policy negotiations are likely to produce welfare-efficient outcomes where the negotiating parties are fully informed about available policy options and their effects, and where side payments or package deals are possible. These conditions only hold, however, when conditions that imply only a limited number of actors can be involved in negotiations.

Coase's theorem, however, provides little assistance for resolving the negotiators' dilemma of searching for solutions that optimise overall welfare *and* that resolve distributive conflicts. The proper consideration of distributive justice will depend on how decision-making is institutionalised. More particularly, in intergovernmental fora dominated by expert government agencies, distributive issues are unlikely to be addressed well unless some form of public deliberation over policy options takes place. This public deliberation implies that policy discussions or "discourses" between specialised policy elites be transparent and accessible. In addition, there must be the possibility of a further "discourse" between these elites and the wider public (Scharpf 1998). Through such discussion, citizens should be able to make sense of policy choices and respond to them by active support, passive acquiescence or political opposition (Scharpf 1998:35).

If we take Held's concept of autonomy plus these other factors into consideration, the following five questions might be used to assess a site of international decision-making. In making assessments based on these questions, it will be essential to evaluate the extent to which principles of action have attained constitutional status.

1. Do persons and organizations have *access* to that site of power? Is the site *transparent*?

Transparency implies that information on negotiations is publicly available, so that all

interested observers can inform themselves fully on the core questions and tradeoffs under consideration.

2. Are opportunities for participation in policy deliberation *open* to all interested participants? Can these interested parties participate, being informed about the core points of disagreement and agreement in debates among decision-makers? Participation may range from presenting briefs to being included in negotiations.
3. Do decision-makers at a site make provision for *discourse* with interested publics? By discourse, we mean not only discussions about technical matters, but also about the broader distributive and normative implications of various technical options. These discussions involve dialogue, not simply sequential reciprocal flows of information. This discourse might take place at a global level and at the national level between participating national elites and interested domestic publics.
4. Does the composition of the actual decision-making forum *represent* the range of nation-states and of functional interests potentially affected by the decisions? Does the forum have explicit decision-making rules that give each participant a proportionate vote, while ensuring formal political equality among participants?
5. Is the process of representation structured such that the actual decision-making forums are sufficiently small that transaction costs can be minimized, thus making *effective* decision-making possible? Such structuring may involve vertical integration of decision-making organizations or a decentralization of power to appropriate decision-making sites (subsidiarity).

Using these five criteria, then, we will assess briefly the Bank for International Settlements, the International Organisation of Securities Commissions and the self-regulatory

private regimes that predominate in the derivatives fields. A summary of this assessment is available in Table 2.

The Bank for International Settlements (BIS)

Three intergovernmental bodies have been active at the BIS: the Basle Committee on Banking Supervision (regulation of international banks), the Euro-currency Standing Committee (oversight of financial markets), and the Committee on Payment and Settlement Systems (market "infrastructure"). These groups are not very accessible in that meetings take place in secret and their members (central banks, banking regulators) are traditionally rather closed actors at the nation-state level. Over the past several years, the committees' work has become more transparent, with key documents being made available to wider publics as well as to committee members. All the initial evidence suggests that opportunities for participation in policy-making are particularly open to financial services firms themselves and to their representative associations. Speaking of the 'market-friendly' approach to regulation (Padoa-Schioppa 1997:121), a member of the committee writes:

A feature of this attitude has been the involvement of the regulative industry in the decision-making process: many of the proposals formulated by the Committee over the years came from working groups with close links to the banking industry, while formal consultation with market participants and other interested parties, which was originally practised by only a few countries, has gradually become a common procedure and made an important contribution to achieving effective solutions without burdening agents with unnecessary regulations.

Perhaps only these would have the technical expertise to engage in the highly complex matters involved. If so, the situation may point to a lack of opportunities for public discourse on the

matters involved that would have educated interested publics. We do know that the policy communities for financial services at the nation-state level tend to be dominated by finance ministries and central banks, both of which institutions traditionally are reluctant to engage in deliberative politics (Coleman 1996).

These committees are also not very representative of their potential constituencies. Membership has tended to be restricted to the Group of 10 countries.² Although this group includes the most powerful capitalist democracies, the effects of its deliberations reach well beyond the citizens in those countries. The cross-border effects of individual bank failures on financial services consumers are significant as the failures of Herstatt Bankhaus, BCCI, and Barings have shown. More recently, the difficulties in banking in the Asian countries have contributed to economic problems for citizens throughout the world. Hence a very large number of people who have an interest in the outcomes of these committees' deliberations lack representation. The members of these committees increasingly recognise that this access problem exists. For example, the BCBS now organises biennial conferences of banking supervisors from around the world. These supervisors have gradually organised themselves on a regional basis and are now regularly consulted by the Committee. Thus, when the Committee developed its 25 principles for banking supervision that were published in 1997, it involved in the discussions a representative set of countries from outside the OECD (BIS-BCBS 1997).

These problems in openness and representation would lead to the hypothesis that the policy outcomes from the BIS committees might not be as directed to a common good as many might desire. In particular, dimensions of distributive justice may receive short shrift. The relatively restricted size of the Committees, however, does suggest that decision-making has had the potential to reach welfare-efficient outcomes (at least for members represented) (Genschel and

Plümper 1997). Studies of the BCBS indicate that members share many of the characteristics of an "epistemic community" (Kapstein 1992, 1994; White 1996) which facilitate the kind of solidaristic actor orientations that permit problem-solving bargaining (Scharpf 1997: Ch. 6). And the BCBS has seen its capital adequacy accord applied widely in nation-states not at all represented on the committee.

As globalisation intensifies, this capacity of realising welfare-efficient outcomes will likely be jeopardised. Genschel and Plümper (1997) note that the BCBS was able to balance relatively well the problems of interest heterogeneity and the control of free riders. With its restricted size, the Committee was able to reach decisions. The overall economic importance of its members then permitted the use of political pressure in having its regulations adopted by nation-states well beyond the Committee's membership. With the global financial system becoming more integrated, the Committee is finding it increasingly problematic to leave out many of the developing world states and the states from the former Communist bloc. If it were to increase its membership so as to deal more effectively with the consequences of developments like the Asian Crisis of 1997-98, the resulting heterogeneity would make reaching decisions more difficult. Certainly, transaction costs may depart significantly from zero, rendering the likelihood of welfare-efficient decision-making much less likely. These costs might be reduced if the epistemic community at the BCBS is able to expand beyond the G10. Given its composition—central banks and banking supervisors—this possibility is realistic. Certainly, the new Institute of Financial Stability of the BIS could contribute to this development.

International Organization of Securities Commissions (IOSCO)

Partly as a consequence of the deep divisions that have occurred between the US and other major powers and partly due to the greater transparency of US policy-making in the securities area, information on key disputes at IOSCO has been available. Access to the site, however, remains limited to IOSCO members and only these members participate in policy deliberations. The level of policy discourse in the securities subsector remains restricted. With the notable exception of the Securities and Exchange Commission in the US and its relationships with the US Congress, national securities regulators and associated industry SROs are the dominant actors in highly closed domestic policy communities (Moran 1991; Coleman 1996). Although IOSCO itself has been a more transparent organisation, this predilection for closed decision-making by its members accentuates the obstacles to democratic decision-making faced by the securities sub-sector at the international level.

IOSCO does depart from the BIS Committees in being a much more broadly based organisation, with developing and former East Bloc countries as members. Participation within IOSCO is not equally open to all of these members, however. Some of the crucial regulatory decisions have been delegated to the organisation's Technical Committee which has a more restricted membership, dominated by the US and other OECD countries (Porter 1993; Underhill 1997). In addition, private financial market interests enjoy a favoured position in policy deliberations. This position reflects the membership of IOSCO, national securities commissions, which historically work very closely with industry self-regulatory organisations (Underhill 1997:31-2). In this respect, IOSCO sees itself more as an international non-governmental organisation, rather than a governmental one.

The delegation of key decisions to the Technical Committee, however, has not enabled IOSCO to mirror the “success” of the BCBS. Very important differences on how capital adequacy and market risk might be addressed for securities firms have not been resolved by the organisation (Coleman and Underhill 1998; Underhill 1997). The kind of solidaristic orientation of actors at the BIS is not present at IOSCO where actors remain in a very competitive mode. Part of this orientation reflects strong competition among states for the location of the increasingly mobile securities business. In addition, the resulting high transaction costs and lack of solidarity in the decision-making forum make side payments difficult, ensuring that negotiating welfare-efficient outcomes is unlikely.

International Self-Regulatory Organisations

The international self-regulatory arrangements that predominate in the derivatives sub-sector and that also are important in arrangements focused on settlement risk depart furthest from democratic principles. Access tends to be highly restricted, information limited, and decision-making is open only to member firms. Important contributing industry organisations such as the Group of 30 and the Institute of International Finance are themselves dominated by the large global financial services firms. Certainly, public discourse on derivatives issues is rare. In all these respects, the private regimes are scarcely representative of their potential constituencies, which include at a minimum financial services consumers. More generally, given the potential systemic consequences of derivatives-induced financial failures, citizens of virtually all nation-states have an important stake in the activities of these kinds of organizations.

These departures from democratic criteria raise questions about how policy outcomes might be addressed to a “common good.” At the nation-state level, governments came to institute oversight bodies like the SEC or the Commodities and Futures Trading Corporation (CFTC) in the

US whose responsibility was to pull the SROs toward considering broader public interests. And even here, such steps were not always successful, leading to considerable opportunities for agency capture (Coleman 1994). Streeck and Schmitter (1985:27) emphasise that "private interest government" can only be "other-regarding" when the state itself has considerable capacity to regulate in its own right if necessary. As William O. Douglas said when the US Congress created the SEC, government must "keep the shotgun behind the door" if self-regulation is to work in the broader public interest. At this juncture, there is no international governmental body that can play this role in relation to international SROs.

There is some attempt to fill this void by co-operation among intergovernmental bodies, the BCBS and IOSCO in particular, but these efforts remain significantly underdeveloped. They are also plagued by "turf disputes" between the SEC and the CFTC in the US, the leading financial power in derivatives. Behind these disputes is a difference in opinion on whether over-the-counter derivatives trading needs to be regulated at all. The SEC supported by the Federal Reserve is reluctant to regulate, while the CFTC would like to exercise more direct supervision of OTC activities. Until these kinds of disputes can be resolved at the nation-state level, it is difficult to imagine any governmental counterparty to SROs at the international level.

Conclusion

This brief review of international governance of global financial services firms and markets is not very encouraging for those who might wish to see democratic decision-making. This lack of democracy is even more disturbing when one realises the level of risk that now exists in the world financial system and the potentially serious economic harm that might result from the failure of one or more global financial services firms. As public authorities and even representatives of

global financial services firms have noted, such a failure not only threatens the shareholders and customers of the given firm, but also potentially shareholders and customers across the globe. The contagion possibilities from credit, market, settlement and legal risk have heightened the likelihood of systemic risk. Given these dangers, a greater measure of democratic accountability would seem desirable. Without such accountability, the very legitimacy of the international financial system could become questioned by citizens the world over (Pauly 1997:12-17). In fact, if decision-making in financial services had been more democratic in the first place, one wonders whether we would have ever reached the highly risky position in which we find ourselves now.

References

BIS (Bank for International Settlements). 1998. *International Banking and Financial Market Arrangements*. Basle: BIS: May.

BIS-BCBS (Basle Committee on Banking Supervision). 1997. *Core Principles for Effective Banking Supervision*. Basle: BIS-BCBS.

BIS-ECSC (Euro-currency Standing Committee). 1996. *Proposals for Improving Global Derivatives Markets Statistics*. Basle: ECSC.

Begg, Iain and David Green. 1996. "Banking Supervision in Europe and economic and monetary union." *Journal of European Public Policy*, 3, 3: 381-401.

Coleman, William D. 1996. *Financial Services, Globalization and Domestic Policy Change: A Comparison of North America and the European Union*. Basingstoke: Macmillan.

Coleman, William D. 1994. "Keeping the Shotgun Behind the Door': Governing the Securities Industry in Canada, the United Kingdom and the United States." In J. Rogers Hollingsworth, P.C. Schmitter, and Wolfgang Streeck, eds. *Governing Capitalist Economies*. New York: Oxford University Press.

Coleman, William D. and G.R.D. Underhill. 1998. "Globalization, regionalism and the regulation of securities markets." In Coleman and Underhill, eds. *Regionalism and Global Economic Integration: Europe, Asia and the Americas*. London: Routledge.

Cutler, A.C., V. Haufler, and T. Porter. 1999. "Private Authority and Global Governance", in Cutler, Haufler, and Porter, eds., *Private Authority in International Affairs*. Albany: State University of New York Press.

Dale, Richard. 1996. *Risk and Regulation in Global Securities Markets*. Baffins Land, UK: John Wiley.

Financial Times. 1998. "Reforming Finance." 11 May.

Genschel, Philip and Thomas Plümper. 1997. "Regulatory Competition and International Co-operation." *Journal of European Public Policy*, 4, 4: 626-42.

Goodman, David. 1997. "World-scale processes and agro-food systems: critique and research needs." *Review of International Political Economy*, 4, 4: 663-87.

Greenspan, Alan. 1996. "Presentation." In Ulrich Cartellieri and Alan Greenspan, *Global Risk Management*. Washington: Group of 30.

G30 (Group of 30). 1993. *Derivatives: Practices and Principles*. Washington: Group of 30.

- G30 (Group of 30). 1997. *Global Institutions, National Supervision and Systemic Risk*. Washington, DC: Group of 30.
- Held, David. 1995. *Democracy and the Global Order*. Stanford: Stanford University Press.
- Hirst, Paul and Graham Thompson. 1995. *Globalisation in Question*. Cambridge: Polity Press.
- Josselin, Daphne. 1997. *Money Politics in the New Europe: Britain, France and the Single Financial Market*. Basingstoke: Macmillan.
- Kapstein, Ethan. 1992. "Between Power and Purposes: Central Bankers and the Politics of Regulatory Convergence." *International Organization*, 46: 265-88.
- Kapstein, Ethan. 1994. *Governing the Global Economy: International Finance and the State*. Cambridge, MA: Harvard University Press.
- Krugman, Paul. 1998. "Start taking the Prozac." *Financial Times*. 9 April: 16.
- Lütz, Susanne. 1998. "The revival of the nation-state? Stock exchange regulation in an era of globalized financial markets." *Journal of European Public Policy* 5: 153-68.
- Martin, Paul. 1998. "Statement Prepared for the Interim Committee of the IMF." 16 April.
- Moran, Michael. 1986. *The Politics of Banking*. 2nd Ed. London: Macmillan.
- Moran, Michael. 1991. *The Politics of the Financial Services Revolution*. London: Macmillan.
- OECD (Organisation for Economic Co-operation and Development). 1995. *Securities Markets in OECD Countries: Organisation and Regulation*. Paris: OECD.
- Padoa-Schioppa, Tomaso. 1997. "Market-friendly regulation of banks: an international perspective." In Dieter Duwendag, ed. *Szenarien der Europäischen Währungsunion und der Bankenregulierung*. Berlin: Duncker and Humblot.
- Pauly, Louis. 1997. *Who Elected the Bankers: Surveillance and Control in the World Economy*. Ithaca, NY: Cornell University Press.
- Pauly, Louis. 1988. *Opening Financial Markets: Banking Politics on the Pacific Rim*. Ithaca: Cornell University Press.
- Phillips, Susan M. 1997. "Risk Management for Banks and Banking Regulators in the 21st Century." Remarks at the Atlanta Society of Financial Analysis, Atlanta, Georgia, February 14.

Porter, Tony. 1997. "NAFTA, North American Financial Integration, and Regulatory Co-operation in Banking and Securities." In Geoffrey R.D. Underhill, ed. *The New World Order in International Finance*. Basingstoke: Macmillan.

Porter, Tony. 1993. *States, Markets and Regimes in Global Finance*. Basingstoke: Macmillan.

Scharpf, Fritz W. 1998. "Interdependence and Democratic Legitimation." Unpublished MSS.

Scharpf, Fritz W. 1997. *Games Real Actors Play: Actor-Centred Institutionalism in Policy Research*. Boulder: Westview.

Scholte, Jan Aart. 1995. "Global Capitalism and the State," *International Affairs*, 73, No. 3: 427-52.

Story, Jonathan and Ingo Walter. 1997. *Political Economy of Financial Integration in Europe: the battle of the systems*. Manchester: Manchester University Press.

Streeck, Wolfgang and P. C. Schmitter. 1985. "Community, Market, State and Associations? The Prospective Contribution of Interest Governance to Social Order." In Streeck and Schmitter, eds. *Private Interest Government*. London: Sage.

Underhill, Geoffrey R.D. 1997. "Private Markets and Public Responsibility in a Global System: Conflict and Co-operation in Transnational Banking and Securities Regulation." In Geoffrey R.D. Underhill, ed. *The New World Order in International Finance*. Basingstoke: Macmillan.

USGAO (United States General Accounting Office). 1994. *Financial Derivatives: Actions Needed to Protect the Financial System*. Washington: USGAO.

White, William. 1996. "International Agreements in the Area of Banking and Finance: Accomplishments and Outstanding Issues." *BIS Working Paper No. 38*. October.

Table 1
Classification of governance arrangements by institution and type of risk

	Banks	Securities dealers	Derivatives Dealers
Credit risk	Formal intergovernmental accord on capital adequacy; suggested guidelines for large credit exposures, country risk, off-balance sheet exposure	Regional intergovernmental accord on capital adequacy (EU); institutionalized contacts among supervisors with capital adequacy on an ongoing topic of negotiation	Primarily self-regulatory; industry-defined guidelines for financial integrity and voluntary oversight available; some guidance on risk management also available from BCBS/IOSCO
Market risk	Formal intergovernmental accord; suggested guidelines for foreign-exchange positions, interest rate risk, internal risk models	An intergovernmental accord under negotiation; moving toward value-at-risk models	
Settlement risk	Primarily self-regulatory; some suggested guidelines on common standards	Primarily self-regulatory; negotiations of common accounting standards underway	Primarily self-regulatory; suggested guidelines for clearing arrangements for exchange-traded derivatives; industry-defined "master agreement" for OTC contracts
Legal Risk	International conventions on cheques and bills of exchange, but not on netting and bankruptcy	Private global clearing firms have developed such as Cedel and Euroclear	Some cross-national cooperation between exchanges
Operational risk	Self-regulatory; guiding principles for evaluation of internal control systems available	Self-regulatory; guiding principles for risk management and internal controls available	Self-regulatory; industry-defined and BCBS/IOSCO guidance documents available.

Table 2
Summary of Democratic Assessment of International Decision-Making Sites

	BCBS	IOSCO	Private Regimes
Access/Transparency	Low	Low	Very Low
Openness	Low	Low	Very Low
Discourse	Very Low	Low	Very Low
Representativeness	Low	Low to moderate	Very Low
Effectiveness	High	Low	Low

Endnotes

¹ These various concepts of risk are defined based on a discussion of risk under the headings "Introduction to Risk" and "Key Concepts" at <http://risk.ifci.ch/KeyConcepts.html>. This website is maintained by the International Finance and Commodities Institute, a non-profit foundation that was created in 1984 on the initiative of the Swiss Commodities Futures and Options Association.

² The G10 actually includes eleven countries: Belgium, Canada, France, Germany, Italy, Japan, The Netherlands, Sweden, Switzerland, UK, US.