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Progress in Implementing the Recommendations of the Working Group on Highly Leveraged Institutions (HLIs)

Note to the FSF by the Chairman of the HLI Working Group
March 2001

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13th March 2001

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Introduction

1. Last March the FSF Working Group on HLIs ("the Working Group") presented a report (referred to in this paper as the 2000 Report) outlining its findings and recommendations to the FSF. The FSF supported the recommendations and agreed to review progress towards implementation in March 2001. A review of the overall effectiveness of the recommendations was agreed for March 2002.

2. This paper is my high level overview of progress following a meeting of the Working Group on 26th February 2001.

Developments in the hedge fund/HLI Industry

3. The IMF prepared for the Working Group an overview of developments in the hedge fund industry during 1999-2000 (attached as annex 1). Though constrained by the limited availability of industry data, this points to a number of interesting conclusions:

- Hedge funds recorded, on average, modest positive returns on capital under management during the past year, outperforming most of the major market indexes.

- The number of hedge funds (and to a lesser extent total capital under management) has increased since 1998. The limited available information on hedge fund activities, including press reports, suggests that the main sources of inflows to hedge funds were pension funds, insurance companies, and major banking institutions (all regulated entities). Investment allocations by these investors still appear to represent a very small percentage of portfolio assets.

- The average size of hedge funds probably decreased. Many large macro hedge funds have either ceased operations entirely, or have been significantly scaled back. This seems to reflect two considerations: a reassessment of the risk-adjusted expected returns on large directional positions on asset prices; and the industry perception that increased scrutiny of hedge fund investments would adversely affect potential returns.

- As expected by market observers, market discipline of hedge funds appears to have increased since the near-collapse of LTCM.

- Partly as a result of these developments, some have observed that activities in OTC derivatives markets and some of the underlining markets have become more highly concentrated, and these markets are widely seen as less liquid than they were in the mid- to late-1990s. This applies to advanced-country markets as well as emerging debt and foreign exchange markets.

- Available data on leverage suggest that overall leverage (weighted average leverage ratio for funds that choose to report to MAR/Hedge) within the industry has probably fallen.

- There has been growth in the industry in Europe and (to a lesser extent) Asia.

4. The Basel/IOSCO Working Group reported similar trends.

Counterparty risk management and regulatory oversight

5. The Working Group supported the Basel Committee's and IOSCO's efforts last year to form the Highly Leveraged Institutions Working Group to assess the implementation of Sound Counterparty Risk Management Practices in banks and securities firms. That Group has presented its draft findings to the Basel Committee, IOSCO, and the Working Group and is now finalising its report.[1] These findings indicate good overall progress in carrying forward the recommendations made by public and private sector organisations.[2] In areas where progress remains to be made, there is impetus to effect improvements; these will need continued monitoring by national authorities.

6. Improvements have been made in the level of senior management reporting of HLI exposures and in general standards of credit analysis and due diligence. Institutions have also made solid progress in improving exposure measurement methodologies,[3] in products covered by these methodologies and in integrating market and credit risk management. In the area of documentation, some institutions have taken steps to tighten covenants and other contractual provisions on HLIs (though further progress is needed at the industry level). US authorities also report a decline in the aggregate level of US national bank exposure to HLIs and a decline in the number of institutions providing credit to the sector.

7. But several challenges still need to be addressed. It remains particularly important that firms continue to make progress on the exposure measurement front, since risk assessment is an important foundation for effective management reporting and decision-making. While firms have made significant progress to strengthen their measures of potential future credit exposure, efforts to conduct regular and comprehensive stress testing have progressed more slowly. The stress tests that have been conducted so far are undertaken largely on an ad-hoc basis, requiring

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[1] The report – A review of issues relating to HLIs – was published on 22 March 2001 and can be retrieved from the BIS (http://www.bis.org/ publ/bcbs79.htm) and IOSCO web sites.

[2] As issued principally by the Basel Committee, IOSCO and the Counterparty Risk Management Policy Group.

[3] Using simulation approaches to quantify potential future exposures rather than notional add-ons.

significant manual intervention. There are firms, however, that conduct these tests on a regular basis. Some firms that conduct stress testing have carried out relatively simple tests, shocking individual risk factors and assessing the impact on counterparty exposures, while others have conducted more sophisticated tests. There also remains some concern about the ability of regulated firms to resist market pressures, in particular on initial margin. Disclosure of information from HLIs to credit providers has improved in terms of both quality and quantity. However, progress remains inconsistent, with confidentiality concerns and competitive pressures sometimes limiting information flows to credit providers. Firms continue to face a significant challenge in ensuring that the pricing and management of risk are appropriate where information remains less extensive than would be ideally necessary. Under these circumstances, each firm needs to understand the credit risk associated with its HLI exposures and to ensure that it applies an appropriate "package" of credit risk taking and management strategies. These need to take account of the adequacy of the firm's internal exposure measurement and management reporting processes and to balance such factors as the adequacy of quantitative and qualitative information flows, the credit terms offered and the limits set on exposures to HLIs.

8. Over the past two years, regulatory oversight of HLI credit providers has also improved. The Basel/IOSCO exercise (and an earlier exercise by the Basel Committee) was compiled with the full participation of national regulators from major financial centres. Guidance on sound practice towards HLIs has also been incorporated into the supervisory approach of many jurisdictions. It is important that oversight of these activities continues.

Disclosure

9. The Basel/IOSCO Working Group commented that the level of disclosure by HLIs to their counterparties remains inconsistent: this underlines the importance of appropriate steps to promote good disclosure standards and practices by HLIs. The 2000 Report had suggested two routes through which this might be pursued: the introduction of public disclosure requirements directed at HLIs by national authorities; and through the voluntary study of disclosure enhancements by the Multidisciplinary Working Group on Enhanced Disclosure (MWGED).

10. The responses of national representatives on the Working Group indicate that progress towards introducing mandatory public disclosure requirements on HLIs has been limited. Although the US introduced proposed legislative and regulatory provisions that would mandate greater disclosure after the near-collapse of LTCM, US representatives informed the Working Group that they may reconsider whether such measures are still necessary in light of industry progress to increase information flows both to investors and to counterparties, as well as structural changes in the hedge fund industry itself. Complementary measures in other jurisdictions have also not been implemented. However, the MWGED initiative has made considerable progress.[4] Five major hedge funds were active participants

[4] The report of the Multidisciplinary Working Group on Enhanced Disclosure (MWGED) was published on 26 April 2001 and is available on the web sites of its sponsoring bodies and of the FSF (http://www.fsforum.org/Reports/RepMWG.html).

in its work, analysing how the public disclosure practices of financial institutions might be improved. Its recommendations for improving disclosure practices fall into three categories: (1) disclosures which should be provided by financial institutions with material amounts of the relevant risk to their shareholders, creditors and counterparties; (2) disclosures which could be informative but for which further work is needed; (3) areas in which quantitative information would in principle fill an important gap but where the development of risk assessment concepts and methods are necessary before practical disclosures can be considered. With respect to HLIs that do not routinely make periodic disclosures of a broad range of their financial information, it recommends that its sponsoring organisations[5] encourage these firms to provide items within category (1), where material, on a routine, periodic basis to their investors, creditors and counterparties.

11. I hope, and expect, that the issues identified by the MWGED will be taken forward by the sponsoring organisations over the next year.

Market Conduct/FX guidelines

12. The 2000 Report noted that in the fragile conditions of 1998 large and concentrated HLI positions had the potential to influence materially market dynamics in a number of small and medium sized economies.

13. To help address the concerns of the authorities in the affected jurisdictions, it is recommended that the leading foreign exchange market participants should articulate model guidelines of trading behaviour. These could serve as a model for small and medium sized economies.

14. This initiative has been completed successfully, with encouragement from a small group of central banks. On 22 February a Press Conference launching the Trading Principles (attached) was held on behalf of a group of 16 major commercial and investment banks. The guidelines will be incorporated into existing codes of market conduct and have been endorsed by the bodies responsible for foreign exchange market standards in the main financial centres. The Working Group has reviewed the guidelines and is impressed by their comprehensiveness in addressing the issues outlined in the 2000 Report. It also recognises the importance attached to the subject by private sector representatives and commends them to all institutions.

Documentation

15. The legal documentation underlying all financial contracts is a crucial building block in the stability of the financial system. The 2000 Report drew attention to

[5] The Basel Committee, the Committee on the Global Financial System (CGFS), the International Association of Insurance Supervisors (IAIS), and IOSCO.

the weakness in documentation revealed by the market disturbances of 1998.[6] It also drew attention to the creation of "Global Documentation Steering Committee" (GDSC). The GDSC aims to help to strengthen the legal and market infrastructure by focusing on harmonising documentation in OTC markets, where appropriate.

16. The Working Group received an update from the GDSC and noted solid progress in identifying issues. But it also noted that progress in resolving issues, particularly in the key areas of improving consistency, where appropriate, between different industry standards of documentation, has been difficult. This is a crucial issue and it is important that we encourage further progress in this area.

Recommendations directed at National Authorities

17. The FSF Secretariat is keeping track of progress by countries in implementing each of the recommendations directed at national authorities. Where appropriate, these have been incorporated in the relevant sections of this note. It is important that countries maintain progress in these areas as appropriate. I would expect the FSF Secretariat to continue to monitor this area.

Conclusions

18. As requested by the FSF, this review has focused on setting out the progress made in each of the recommendations.

19. Our discussions of the above key themes reveal several areas where further action is required. The appropriate national and international groups are responsible for carrying these forward. By Spring next year, progress in improving remaining areas of counterparty risk management, disclosure and documentation should be clearer. In these areas, among others, the Forum may need to consider whether more action might be required next year.

[6] Notably, in that different standardised documentation can be inconsistent in its treatment of key matters in counterparty failures such as events of default, valuation at close-out and notice provisions.

Recent Developments in the Hedge Fund Industry[1]
March 13, 2001

I. Introduction and Summary

This note updates the *Background Note on the Hedge Fund Industry* (Annex D, Report of the Working Group on Highly Leveraged Institutions, Financial Stability Forum, April 5, 2000) for the main developments in the hedge fund industry during 1999-2000. The main conclusions of this note can be summarized as follows:

- Hedge funds recorded, on average, modest positive returns on capital under management during the past year, outperforming most of the major market indexes.

- The number of hedge funds (and to a lesser extent total capital under management) has rebounded from the contraction during late 1998 and 1999. The limited available information on hedge fund activities, including press reports, suggests that the main sources of inflows to hedge funds were pension funds, insurance companies, and major banking institutions. Investment allocations by these investors still appear to represent a very small percentage of portfolio assets.

- The average size of hedge funds most likely decreased, mainly due to the closure of several very large hedge funds in 2000. Closures likely reflected two considerations: a reassessment of the risk-adjusted expected returns on large directional positions on asset prices; and the perception that increased scrutiny of hedge fund investments would adversely affect potential returns.

- As expected by market observers, market discipline of hedge funds appears to have increased since the near-collapse of LTCM. However, whereas disclosure to counterparties has improved, other aspects of disclosure, including even to investors, remains very limited.

- In part as a result of these developments, activities in OTC derivatives markets and some of the underlying markets have become more highly concentrated, and these markets are widely seen as less liquid than they were in the mid- to late-1990s. This applies to advanced-country markets as well as emerging debt and foreign-exchange markets.

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[1] Prepared in the IMF Research Department's Capital Markets and Financial Studies Division.

II. Recent Financial Performance of Hedge Funds

Against the background of generally weak performance in securities markets during the past year, hedge funds recorded modest positive returns overall during 2000 (Table 1).[2] [3] The CSFB/Tremont Hedge Fund Index—probably the most widely used barometer of financial performance of the hedge fund industry—rose five percent in 2000.[4] In comparison, the Dow Jones Index fell about five percent, the S&P500 index lost nearly twice that amount, and the NASDAQ index dropped nearly 40 percent. Even though hedge funds outperformed many major stock and bond indexes, the Sharpe ratio for the CSFB/Tremont index was negative, implying that hedge funds, on average, returned less than the "risk free rate" (yield on U.S. Treasury bills) despite being significantly riskier.

Hedge funds' financial performance varied significantly with investment styles.[5] Hedge funds of most investment styles outperformed the major market indexes, although many fund classes had historically low or even negative Sharpe ratios (one-third of funds by investment style). Emerging market funds, which were the best-performing class of hedge funds in 1999, were unambiguously the worst performers in 2000. Convertible arbitrage funds and funds that specialize in short selling securities were the best performers.

III. Structural Developments in the Hedge Fund Industry

Following the 1998 turmoil in global financial markets, and the associated poor financial performance of many hedge funds, three trends seem to have emerged in the hedge fund industry: a rebound in industry size; a decline in the role of large macro funds; and improved market discipline. In addition, and related to these developments, liquidity in a range of markets has decreased—including advanced-country and emerging debt and foreign exchange markets. Moreover, activities in OTC derivatives markets and some underlying

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[2] After a period ending in 1999 of comparatively high returns on equities, stock markets in most of the major economies have declined significantly. Rising interest rates during 1999 resulted in low or negative returns on bonds, while declining or leveling off of interest rates since end-1999 resulted in modest bond returns during the past year.

[3] Empirical analyses of hedge fund performance are sample dependent. When adjusted for volatility of returns, there is no clear evidence that hedge funds outperform or underperform broad market indexes. See the Background Note for references to empirical studies.

[4] For comparison, Van Hedge Fund Advisors reports that the average U.S. hedge fund returned 11 percent and the average offshore hedge fund returned 4.5 percent in 2000.

[5] Hedge fund data vendors classify hedge funds by investment styles. Although there are differences in classifications among data vendors, overlap is high.

markets have become more highly concentrated, and these markets are widely seen as less liquid than they were in the mid- to late-1990s.

Modest Rebound of Industry Size

In retrospect, the 1998 turmoil was responsible not only for the winding up of the hedge fund LTCM, but also for the closure of many large and small hedge funds. As a result, the number of hedge funds decreased during late 1998 and into 1999 (Table 2). Market observers and market participants widely consider this consolidation as representing a "cleansing process" for the industry. This consolidation comprised the closure of poorly performing funds. More generally, hedge fund investment strategies were reoriented away from directional bets on specific asset prices or riskier types of arbitrage strategies, and towards more "classic hedge fund," market-neutral investment strategies.

Because hedge funds still do not face public reporting requirements, it is not possible to trace precisely the evolution of the size of the hedge fund industry since 1998, the most recent period covered in previous studies. Most hedge-fund data vendors, which were the main source of estimates of industry size a few years ago, no longer report estimates of industry size—that is, vendors no longer extrapolate industry size based on the subset of hedge funds that report to a vendor.[6] Various estimates of industry size for 2000 reported by the media—the bases of which are unknown—suggest that the size of the hedge fund industry has rebounded since 1999, especially in terms of the number of hedge funds. Total capital under management has grown more slowly than the number of hedge funds, apparently reflecting the closure of several very large hedge funds during 2000.[7] Some of the capital that had been invested in macro funds has been redeployed in other hedge fund styles, especially market neutral hedge funds. Overall, it is unclear whether the average size of hedge funds has decreased since 1997 or 1998.

Limited information on the hedge fund industry also makes it difficult to identify precisely the magnitudes and sources of inflows to the hedge fund industry since 1998. The available evidence indicates that important sources of recent demand for hedge fund investments have been traditional institutional investors, including pension funds and

[6] For example, MAR/Hedge ceased publishing estimates of industry size in 1999 out of concern about the reliability of estimates based on available information.

[7] The estimated size of the industry at end-1998 was $175-300 billion capital under management. A rough extrapolation using financial performance since end-1998 would suggest a range of $220-375 billion. This estimate would need to be adjusted for net inflows of capital to the industry. A "consensus" estimate reported in the press is about $350 billion (*The Economist*, Dec 2, 2000, "Born to be Trimmed" suggests $350 billion; an article by Joel Chernoff, in *Pensions and Investments*, January 22, 2001 suggests $400 billion).

insurance companies, as well as private banking arms of major banks and investment banks.[8] Market observers have noted an accelerated growth of hedge funds in Europe and (to a lesser degree) in Asia.[9] A recent survey of European fund managers found that more than one-third currently invest in hedge funds, more than double the number of one year ago.[10] Hedge funds are increasingly viewed by institutional asset managers in a variety of countries as a "distinct asset class" that provides potentially significant diversification benefits within large portfolios.[11] For example, in December 2000, CalPers, a large California-based pension fund, established a $1 billion hedge fund program "signaling a strong and growing interest in the asset class.... It is expected that five to 10 hedge fund investments will be made."[12] Notwithstanding recent press reports of inflows to hedge funds from other institutional asset managers, the magnitudes of these inflows appear to be modest, and lower than appeared probable a few years ago.[13]

A further complication in assessing the amount of hedge fund-type activity is that legal differences between the activities of hedge funds and other investment vehicles, including mutual funds, has decreased over time. In the United States, for example, the amount of profit (as a share of a mutual fund's total income) that a mutual fund was permitted to earn from certain short-term trading strategies (including short sales of securities) was, until 1997, limited by the "short-short rule." This restriction has been lifted. There is no empirical evidence to suggest that, as a result of this regulatory change or others, mutual funds now engage in more speculative-type trading. However, the set of available investment

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[8] For 1996 it is estimated that high net worth individuals accounted for 80 percent of hedge fund assets (see the Background Note). It is difficult to update this estimate based on public information because the only institutions that generally report investments in hedge funds are institutions that have disclosure requirements.

[9] There were more new hedge funds created in Europe during the first half of 2000 than in all of 1999. See *Quarterly Report: International Banking and Financial Market Developments*, November 2000 (Basle: Bank for International Settlements).

[10] Simon Targett, "Europeans Buy More Hedge Funds," *Financial Times*, February 19, 2001.

[11] Empirical evidence of hedge fund performance does not provide hard evidence for over- or underperformance of hedge funds relative to market indexes. Evidence does seem to indicate relatively low correlations between returns on hedge funds and returns on market indexes.

[12] Press Release, December 14, 2000, The California Public Employees' Retirement System. This investment allocation represents well below one percent of assets in CalPers' portfolio.

[13] See, e.g., Joel Chernoff, "Pension Funds Want in on Hedge Fund Action, Probably...They Think," *Pensions and Investments,* January 22, 2001.

strategies to mutual funds and hedge funds overlaps more than it used to, and this makes it more difficult to estimate the amount of hedge fund-type activity.

Much of the concern in 1998 about hedge funds was related to the extent of their leverage. The available data suggests that leverage of hedge funds has probably fallen. The weighted-average leverage ratio for all hedge funds that report to MAR/Hedge fell from 232 percent in late 1999 to 168 percent in late 2000 (Table 3). Virtually all styles of hedge funds had lower leverage in 2000 than a year earlier. Another possible barometer of the degree of leverage of hedge funds is the amount of bank lending to offshore centers, where many hedge funds are legally domiciled. Bank lending to the non-bank sector based in offshore centers has risen at about 10 percent per annum since end-1998 (Table 4).[14] This is a slightly lower growth rate than that of capital under management in the hedge fund industry using MAR/Hedge figures (see Table 2).

Decline of Large "Macro" Funds

A second development is that the large macro hedge funds—which were legendary in the 1990s for taking large leveraged directional bets in currency, bond, commodity, and stock markets—have either ceased operations entirely, or have been significantly scaled back. Those that have scaled back activities have done so either by returning substantial amounts of capital to investors or by deleveraging by allocating capital across a wider range of markets and investment styles.

At their peak in 1998, the largest macro hedge funds (notably George Soros' Quantum fund and Julian Robertson's Tiger family of funds) each had more than $20 billion of capital under management (compared with LTCM peak capital of about $5 billion). In March 2000, Tiger Funds was closed, and in April George Soros announced that the flagship Quantum Fund would be converted into an endowment (the announcement reportedly led most of the fund's investors to withdraw their funds).[15] A number of other lesser known but still large funds decreased capital under management by returning capital to investors.[16]

[14] There may be non-bank institutions other than hedge funds based in these centers that borrow funds. Lending to special purpose vehicles based in offshore centers is reported to have risen sharply (*Financial Stability Review*, Bank of England, December 2000).

[15] Also noteworthy is that Jeffrey Vinik (who left Fidelity in 1996 where he ran the Magellan Fund, the world's largest mutual fund) closed his hedge fund, Vinik Asset Management, in October 2000, with about $4.2 billion in capital under management.

[16] For instance, Moore Capital Management voluntarily returned $400 million to investors in 2000, and investors withdrew an additional $2 billion. "Hedge Fund Retrenches by Giving Back Almost $2 Billion," *New York Times*, December 30, 2000.

An important reason for the decline is that the large macro hedge funds have performed very poorly since the autumn of 1998. While losses on investments made by the very largest funds were not sizable enough to jeopardize their solvency, sharp reductions in investors' capital caused investors in the biggest funds to withdraw capital. This exacerbated the effects of poor performance on the sizes of the largest funds. For the Tiger family of funds, for example, poor financial performance and withdrawals of capital by investors reduced capital under management from its peak of more than $20 billion in 1998 to about $6 billion when the funds were wound up in March 2000. Although some multi-billion-dollar hedge funds still exist, even the largest is presently less than half the size of the largest macro hedge funds that existed in 1998. Moreover, the largest remaining hedge fund groups generally have more diversified "market neutral" investment strategies than was the case historically with the large macro hedge funds.

While poor financial performance ultimately caused the demise of the large macro hedge funds, this begs the question of why their financial performance had deteriorated so abruptly, especially since they had been using the same basic investment strategy for a decade or more. With the benefit of hindsight, there appear to be two reasons why performance changed direction so sharply in 1997-98. First, because these funds were large, their trading behavior had become closely followed by major market participants, and was even regularly covered in the press. This apparently adversely affected financial performance. In a letter to investors in May 2000, the manager of one large hedge fund wrote: "In this business, size is the penalty of success, not the reward."[17] Second, the risk-adjusted expected return on the "macro" style of investing apparently decreased sharply beginning in 1998. George Soros wrote in a letter to shareholders at the end of April 2000: "We have come to realize that a large hedge fund like Quantum Fund is no longer the best way to manage money. Markets have come to be extremely unstable and historical measures of value at risk no longer apply. Quantum Fund is far too big and its activities too closely watched by the market to be able to operate successfully in this environment."[18]

Improved Market Discipline on Hedge Funds

A third development is that counterparties and investors have demanded that hedge funds disclose more about their investment practices and risk management systems. The immediate response to the LTCM event was a near total withdrawal of credit to hedge funds

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[17] "Hedge Fund Retrenches by Giving Back Almost $2 Billion," *New York Times*, December 30, 2000. Similarly, Stanley Druckenmiller, former manager of the Quantum Fund, established the hedge fund Duquesne Capital Management. With about $3 billion in capital under management, Druckenmiller announced he would not accept new capital and would return 100 percent of profits each year ("Macro, Macro Man," *Institutional Investor*, July 2000).

[18] Quoted in David Shirreff, "Betting on Survival," *Euromoney*, June 2000.

by banks and brokers. While circumstances have since normalized, counterparty relationships with hedge funds, including prime brokerage relationships, have become more dependent upon regular disclosure of material information. As a result, actual and potential credit exposures, and their management, are widely considered to be more closely monitored by counterparties. However, other forms of disclosure, including to investors, appear to have major shortcomings.[19]

Greater Concentration and Less Liquidity in a Range of Markets

In the years leading up to the near-collapse of LTCM in the autumn of 1998, hedge funds were important providers of liquidity in a wide range of advanced-country and emerging debt and foreign exchange markets, as well as in OTC derivatives. In part as a result of the cutbacks in hedge-fund activities, there reportedly has been decreased market depth and diminished liquidity in a range of markets. In OTC derivatives markets, this has reportedly led to higher volatility of spreads, particularly in interest-rate swaps markets and some of the underlying securities markets. This reduced liquidity and depth reflects other factors as well, some of them related to the fact that hedge funds are no longer as active as they were in the mid-1990s. For example, the major dealers (the internationally-active commercial and investment banks) have withdrawn capital from market-making activities in segments of derivatives markets and underlying securities markets, in part because the level of activity could no longer support profit margins. In addition, many of these same institutions have reduced their level of proprietary trading, as activities in these markets have become more highly concentrated in a fewer number of counterparties—partly the result of consolidation in the hedge fund industry and more generally in global financial markets.

In 2000, for example, U.S. dollar swap market activity (as measured by turnover or outstandings) remained robust, but dealers reported that swap spreads fluctuated by as much as 50 basis points intraday. Adding further to volatility in swap markets was the shift by the major dealers to using interest-rate swaps rather than U.S. treasury securities to hedge fixed-income inventories. In this environment, the major market participants periodically re-hedged in the same direction in reaction to market developments, which gave rise to one-sided markets and increased liquidity risk. At the same time that liquidity risks had been rising, end-users became increasingly interested in longer-dated transactions, which raised the potential credit risk as well. The decreased number of participants seems to have concentrated these liquidity and credit risks in a smaller number of institutions.

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[19] Two cases involving outright criminal activity received considerable media attention. First, David Mobley Sr., who managed the Maricopa fund, was indicted on mail and wire fraud, money laundering, and expropriation to his own use of fraudently obtained funds. Little of the $120 million in client capital was actually invested in securities. Second, in December 2000, Manhattan Capital Management was revealed to have vastly overstated its net asset value, by fictitious accounting of the value of swaptions held in a "hub fund" for three hedge funds (see "Fund Advisor Accused of Fraud," *New York Times*, December 22, 2000).

Table 1. Hedge Fund Performance
(In percent)

	1994-1997		1998		1999		2000	
	Return	Sharpe ratio [1/]	Return	Sharpe ratio [1/]	Return	Sharpe ratio [1/]	Return	Sharpe ratio [1/]
CSFB/Tremont Hedge Fund Index	15.07	0.30	0.34	-0.10	21.65	0.51	5.25	-0.02
Convertible Arbitrage	9.33	1.05	-4.17	-0.31	14.99	1.40	23.12	1.16
Dedicated Short Bias	1.28	-0.04	-2.07	-0.06	-14.23	-0.37	17.59	0.14
Emerging Markets	13.35	0.21	-42.74	-0.52	39.26	0.51	-4.43	-0.18
Equity Market Neutral	9.52	0.36	12.61	0.65	14.37	1.45	14.07	1.04
Event-Driven	14.31	0.83	-4.06	-0.18	20.34	1.15	7.08	0.11
Fixed Income Arbitrage	9.03	1.08	-8.12	-0.43	11.51	0.93	6.13	0.08
Global Macro	19.92	0.28	-2.05	-0.11	6.42	0.04	11.63	0.15
Long/Short Equity	12.29	0.23	17.27	0.22	40.30	0.69	3.53	-0.04
Managed Futures	5.25	0.13	19.68	0.33	-4.47	-0.31	4.81	-0.02
S&P 500 Index	21.48	0.58	27.63	0.31	20.03	0.34	-8.18	-0.24
Dow Jones Index	21.93	0.45	19.06	0.19	24.81	0.41	-3.29	-0.16
NASDAQ Index [2/]	18.90	0.30	38.62	0.31	67.12	0.62	-39.58	-0.29
MSCI World Equity [2/]	11.80	0.20	22.55	0.26	22.01	0.41	-14.09	-0.40

Sources: MAR/Hedge; VAN Hedge Fund Advisors International; CSFB/Tremont; and Datastream.

[1/] Calculated as the average monthly excess return (using the 90-day U.S. Treasury bill rate as the risk-free rate) divided by the standard deviation of monthly excess returns.
[2/] The returns on NASDAQ and MSCI do not include dividends.

Table 2. Number of Funds and Total Capital Under Management by Hedge Funds

	1990	1994	1995	1996	1997	1998	1999	2000 [1/]
Global Macro								
Number of funds [2/]	16	80	68	69	74	74	66	66
Total capital under management [3/]	4.5	28.8	24.0	31.4	32.2	30.4	24.9	14.3
Global Established								
Number of funds [2/]	42	179	196	239	284	314	291	329
Total capital under management [3/]	1.5	6.6	8.9	12.1	18.4	25.0	37.7	40.7
Global Emerging								
Number of funds [2/]	24	166	191	247	218	154	142	148
Total capital under management [3/]	0.7	13.0	13.2	17.9	20.4	8.7	10.2	10.2
Long-Only								
Number of funds [2/]	0	10	11	21	27	25	25	24
Total capital under management [3/]	0.0	0.1	0.2	0.5	0.4	0.3	0.6	0.5
Sector								
Number of funds [2/]	1	22	35	54	80	83	100	133
Total capital under management [3/]	0.0	0.2	0.7	1.9	3.4	3.0	5.0	9.2
Short-Sellers								
Number of funds [2/]	7	18	14	18	20	22	20	21
Total capital under management [3/]	0.2	0.6	0.5	0.5	0.6	0.8	11.8	1.1
Market Neutral								
Number of funds [2/]	20	148	179	227	276	288	277	292
Total capital under management [3/]	0.9	6.4	7.5	12.9	23.8	26.3	27.6	32.0
Event-Driven								
Number of funds [2/]	20	66	85	118	135	129	118	133
Total capital under management [3/]	0.9	3.9	4.7	6.7	10.4	11.6	13.1	16.6
Funds of Funds								
Number of funds [2/]	33	198	232	284	314	296	318	346
Total capital under management [3/]	1.5	11.3	11.5	15.3	22.3	21.7	25.0	27.4
Total number of funds	163	887	1011	1277	1428	1385	1357	1492
Total number of funds, excl. Funds of Funds	130	689	779	993	1114	1089	1039	1146
				(In billions of US dollars)				
Total capital under management	10.2	70.9	71.2	99.2	131.9	127.8	155.9	152.0
Total capital under management, excl. Funds of Funds	8.7	59.6	59.7	83.9	109.6	106.1	130.9	124.6

Source: MAR/Hedge; BIS, *Quarterly Review: International Banking and Financial Market Developments* , November 2000.

[1/] Figures for the year 2000 refer to September. Other years refer to December.

[2/] Total number of funds reporting to MAR/Hedge.

[3/] Total capital under management of funds that report to MAR/Hedge as of end period; in billions of US dollars.

Table 3. Leverage of Hedge Funds [1/]
(In percent)

	1999	2000
Global Macro	197	161
Global Established	186	142
Global Emerging	146	139
Long-Only	171	223
Sector	130	124
Short Sellers	116	113
Market Neutral	376	256
Event-Driven	140	133
Total	232	168

Source: MAR/Hedge; BIS, *Quarterly Review: International Banking and Financial Market Developments* , November 2000.

[1/] Leverage refers to the ratio of the sum of the funds' portfolio assets and liabilities to total assets under management, as reported to MAR/Hedge by the funds. The reported figure corresponds to the size-weighted average for all the funds in each group that reported their leverage to MAR/Hedge; figures are for September of each year.

Table 4. External Assets of Reporting Banks vis-à-vis Selected Offshore Financial Centers
(In millions of US dollars)

	Vis-à-vis Non-Bank Sectors			Vis-à-vis Bank Sector		
	1998 Q4	1999 Q4	2000 Q2	1998 Q4	1999 Q4	2000 Q2
Total	275,504	301,333	324,409	1,032,499	925,065	842,392
Aruba	710	746	1,011	37	82	29
Bahamas	11,892	10,837	13,131	132,119	135,282	130,296
Bahrain	1,182	1,218	1,275	21,932	23,062	23,725
Barbados	345	391	351	8,591	6,308	7,087
Bermuda	21,217	24,195	23,795	3,679	6,250	4,959
Cayman Islands	131,276	154,301	172,010	269,318	269,079	271,144
Hong Kong	22,466	20,677	19,276	299,159	235,617	182,566
Lebanon	2,083	2,269	2,081	1,501	1,459	1,470
Liberia	15,727	17,251	15,897	574	61	137
Netherlands Antilles	17,430	14,698	17,119	21,606	22,837	24,086
Panama	28,515	28,769	28,481	8,273	7,025	7,292
Singapore	7,775	9,761	12,038	260,374	213,714	186,310
Vanuatu	21	45	21	1,032	929	543
West Indies UK	14,865	16,175	17,923	4,304	3,360	2,748

Source: BIS, *Quarterly Review* , November 2000, Statistical Annex: Tables 6A and 6B.

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ANZ Bank	Banamex	Bank of Tokyo-Mitsubishi
Barclays	J P Morgan Chase	Citibank
DBS	Deutsche Bank	Goldman Sachs
HSBC	Morgan Stanley	Nomura Securities
Societe Generale	Standard Bank of South Africa	Standard Chartered
		UBS Warburg

London, 22nd February 2001

Leading intermediaries in the foreign exchange market have agreed on a new set of good practice guidelines for foreign exchange trading. This is in response to a recommendation made in the report, published in April 2000, of the Financial Stability Forum Working Group on Highly-Leveraged Institutions, which was chaired by Sir Howard Davies.

Major commercial and investment banks have collaborated in drawing up the guidelines, which are to be incorporated in existing codes of market conduct. The collaboration was facilitated by a group of central banks, which have an interest in ensuring orderly conditions in financial markets. The guidelines have been discussed and endorsed by the bodies which are responsible for foreign exchange market standards in the main financial centres.

Trading Principles

We, the firms listed above, have reviewed the following principles and have incorporated them into our own guidelines and codes of conduct. We encourage both companies and industry organisations that are responsible for the writing of codes and best practices to consider this input during production of such documents. We encourage the market participants around the world to incorporate these principles in their own codes to the degree that their national and regional jurisdictions allow.

1. We recognise that all trading parties need to put heightened emphasis and sensitivity on market risk and credit management issues during times of market volatility. When an individual currency is experiencing high volatility, intermediaries should pay special attention to the financing of trades in that currency.

2. Foreign exchange managers have a particular responsibility in the execution of orders at volatile times. Intermediaries should take care to discuss with customers the risks of operating in these environments and the possible scrutiny of actions. Market makers may reserve the right to refuse customer transactions that they feel may further disrupt or have the intent to disrupt the market.

3. The handling of all orders, including stop losses, requires vigilance by foreign exchange managers to ensure that there is mutual agreement with customers on the basis on which orders are accepted. Frequent communication with customers about market developments, particularly with a view toward determining their individual trigger levels, is strongly encouraged.

4. The handling of customer orders requires standards that strive for best execution for the customer in accordance with such orders subject to market conditions. In particular, caution should be taken so that customers' interests are not exploited when financial intermediaries trade for their own accounts.

5. Institutions and other trading organisations should be attentive at all times to ensure the independence and integrity of any market-related research that they publish.

6. Financial intermediaries are encouraged to implement rigorous internal guidelines concerning the handling of rumours and possible false information. We strongly endorse the model code[1] that dealers should not relay information they know is false or they suspect may be inaccurate.

7. Manipulative practices by banks with each other or with clients constitute unacceptable trading behaviour.

8. Foreign exchange trading management should prohibit the deliberate exploitation of electronic dealing systems to generate artificial price behaviour.

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[1] Page 38 of the International Code of Conduct and Practice for the Financial Markets. Please refer to www.aciforex.com, Model Code