V. Asset prices and the asset management industry

Highlights

Equity prices in industrial countries continued to rise strongly last year and reached new heights by April 1998. The only notable exceptions to this trend were Japan and, to a lesser extent, Australia. The rally went hand in hand with periodic surges in uncertainty. In the autumn of 1997, stocks fell sharply, if only temporarily, in response to the unfolding crisis in South-East Asia. Bond prices also gathered momentum for most of the year, with part of the gains likely to have been due to a safe-haven effect, as the investment community became more apprehensive about the risks of propagation from Asian markets to the world financial system. The picture for real estate markets was more mixed, with marked differences in performance across countries.

The events of the period under review brought to the fore the role of institutional investors and their impact on financial stability. Their growth has affected all aspects of the financial landscape and has run in a parallel and mutually reinforcing way to the rapid development of financial markets and instruments. The second part of this chapter focuses first on the factors that have fostered the rapid institutionalisation of savings, and describes salient features of the industry that have a bearing on the allocation of these savings. It then proceeds to examine the behaviour of selected market players during the series of currency crises that affected the economies in South-East Asia and the October 1997 episode of stock market turbulence. A comparison is made with previous episodes, and lessons for policy-makers are derived in the final section.

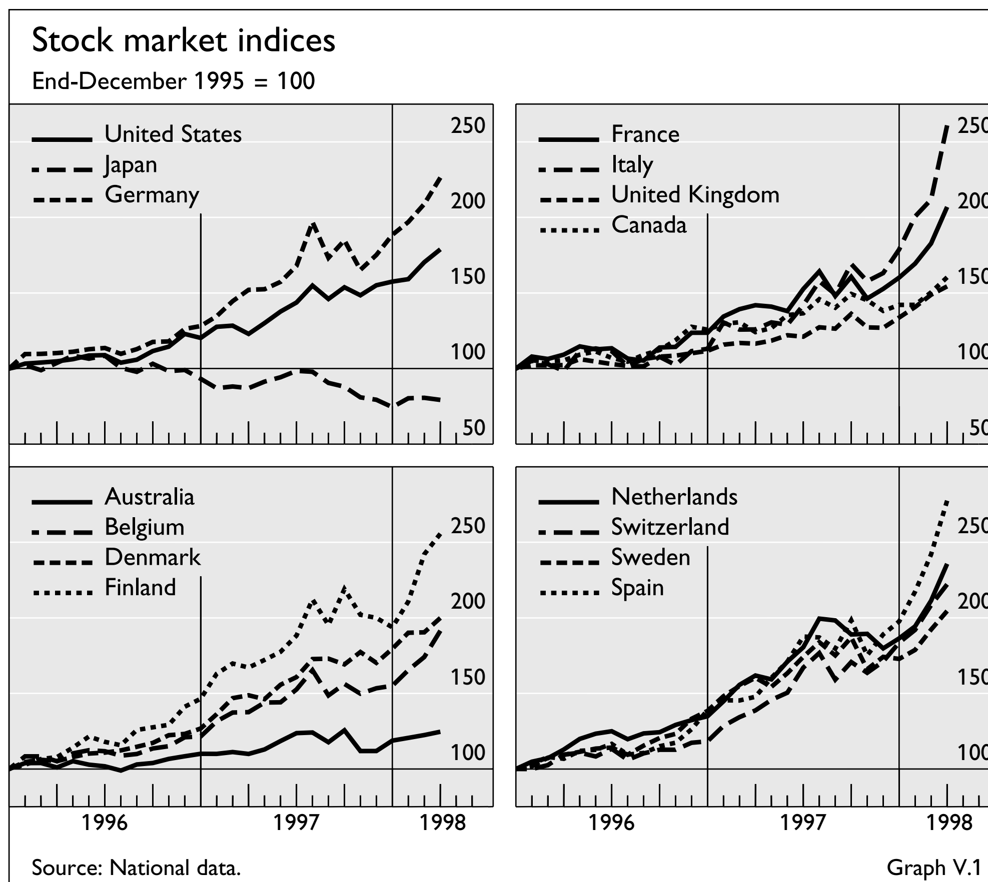
Asset prices

In the United States and Europe, the strength and breadth of last year's bull markets are what most distinguished them from earlier episodes. One feature is that asset price gains occurred almost everywhere, despite divergences in cyclical positions and projections for growth. Another aspect is that equity and bond prices rose together even though other indicators pointed to increased uncertainties about future market trends. Given that conventional valuation indicators in equity markets are generally considered in relation to prevailing interest rates, rather than in isolation, the current low interest rate environment makes stocks look less overvalued. However, should bond prices themselves be subject to some reversal, then stock prices too would have to be reassessed.

Equity markets

Stock prices made substantial gains in North America and Europe in the period under review (Graph V.1). Despite broad similarities in terms of movements and

The general rise in equity prices …



Source: National data. Graph V.1

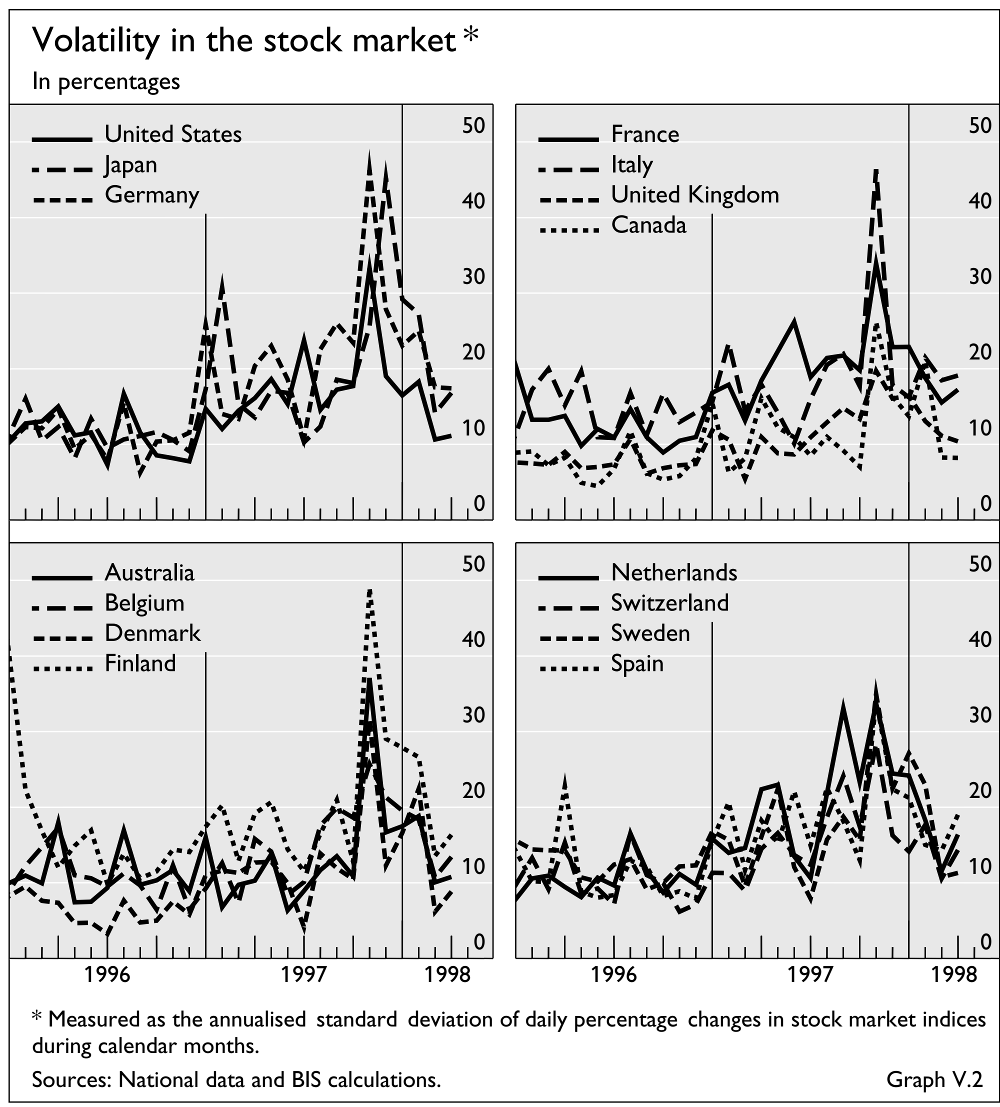
timing, there were certain noteworthy differences across countries. Following a year of subdued performance, Italy recorded the largest increases. The gains were also very strong in Spain and Switzerland, where stock indices rose to double their levels of only two years earlier. In the United States, as in most other countries, equity prices recovered sharply after the autumn 1997 downturn. In contrast, equity prices fell further in Japan, reflecting concerns about the state of the domestic economy and the overall financial situation. In Australia, the relatively weak performance of stocks can be attributed in part to declines in commodity prices which squeezed actual and prospective profits.

… was temporarily reversed in the second half of the year

The turmoil generated by the fall in South-East Asian markets triggered a swing in market sentiment. The adjustment from July onwards took the form of a chain of price declines rippling through all industrial countries. In addition, there was a sharp increase in volatility through to the peak in October (Graph V.2), with daily fluctuations of over 5% being observed in several markets. The extent and timing of retrenchment starting in July varied between countries. Markets in which downward pressure was felt relatively early, as in Germany, France and the Netherlands, tended to experience larger drops between peaks and troughs. By comparison, markets in the United States, Italy and the United Kingdom, where prices did not falter before October, proved to be more resilient, with rather moderate declines confined to a single month. In most countries, stock prices started regaining lost ground in November or shortly thereafter.

Possible explanatory factors:

The surge in equity markets over the past few years raises questions about the grounds on which it was justified. The forces for the buoyant trend can be



* Measured as the annualised standard deviation of daily percentage changes in stock market indices during calendar months.

Sources: National data and BIS calculations. Graph V.2

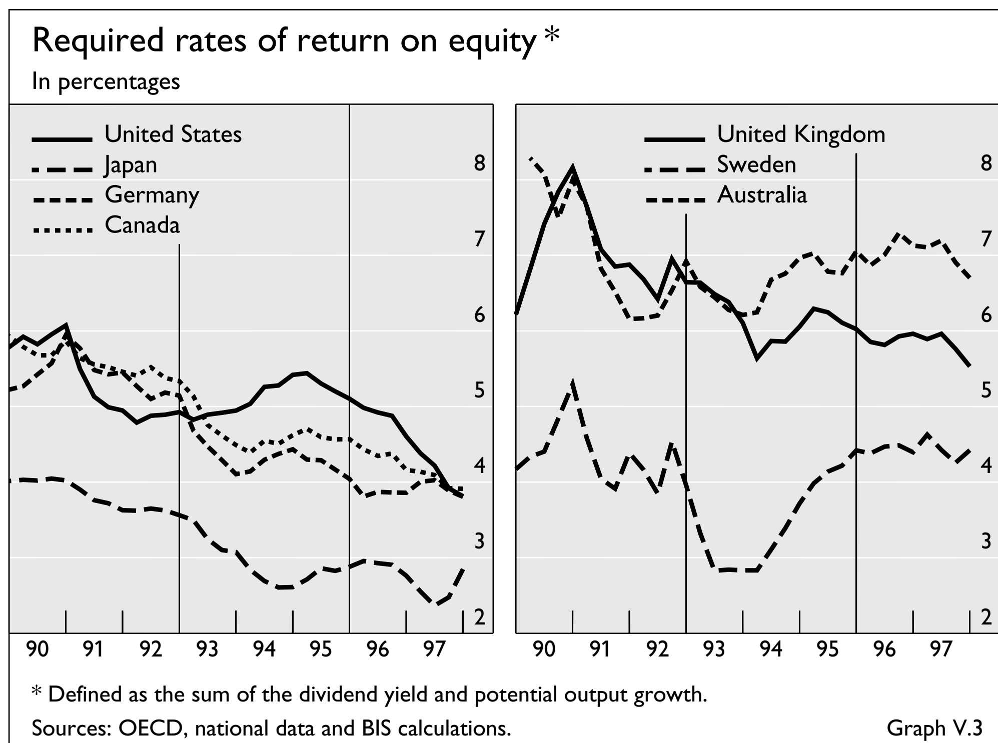
linked either directly to expectations of corporate earnings growth, or indirectly to changes in investors' attitudes towards risk.

real earnings growth ...

Real earnings per share rose in the Group of Seven countries over the last three years. The business sector began to reap the benefits of lower debt service charges, more moderate wage growth and improved labour productivity. The advent of new technologies has also been touted as an important factor behind the current boom. The process of financial deregulation should, in principle, have brought further efficiency gains. However, the significance of these factors in affecting future earnings growth is not easy to quantify. At the present juncture, explicit earnings projections do not suggest an order of magnitude that would warrant the designation of a "new era".

... and attitudes towards risk

Financial changes may also have played a role in altering investors' attitudes towards the stock market, causing them to be content with a lower compensation for risk. In order to assess the relevance of this effect, Graph V.3 depicts the path of estimated required returns on equity holdings for selected countries in the 1990s. These required returns can be roughly estimated as the sum of the actual dividend/price ratio and the growth of potential output, where the latter is a proxy for the expected growth of real dividends. Some support



Required rates of return on equity *
In percentages

* Defined as the sum of the dividend yield and potential output growth.
Sources: OECD, national data and BIS calculations. Graph V.3

for the hypothesis of a higher risk tolerance can be found in the trend decline of required returns in most countries. The evidence, however, is less compelling when judged against the concomitant changes in real long-term interest rates. For example, the decline in inflation-adjusted interest rates shown in Graph IV.8 has tended to outpace that of required returns in the last few years, actually leading to an increase in equity premia since the mid-1990s. In this light, the current high valuations could be viewed as having more to do with declining returns on substitute assets, such as bonds, rather than with changes in attitudes towards risk.

The bearish implications of valuation ratios …

From an empirical standpoint, traditional valuation measures seem to convey a rather bearish outlook for stock markets (Table V.1). In most countries dividend/price ratios reached an absolute low during the period under review. In comparison price/earnings ratios look less unusual, although the Standard & Poor's composite indicator had overtaken its previous peak by the end of March 1998. In the past, the correction of valuation ratios towards more conventional levels has been accomplished through slower price gains rather than through an acceleration of earnings or dividends. Nevertheless, a few caveats can be adduced to qualify what might seem to be the obvious implications of these ratios.

… call for some qualification

First, even if valuation ratios tend empirically to revert to their historical averages, the rate of mean reversion is itself variable. Secondly, the benchmark of valuation ratios needs to be adjusted to take account of cyclical positions. However, equity price gains were recorded not only in countries that were in their early recovery stages, but also in those that were more advanced in their cycle, even with a level of economic activity at or above potential. Finally, changes in the economic structure may be conducive to breaks in historical relationships, which could go some way towards explaining the ranges in which dividend yields

Indicators of valuation of share prices

	Price/earnings ratios					Dividend yields				
	Sample from	Peak level	Peak date	Average	March 1998	Sample from	Trough level	Trough date	Average	March 1998
United States	1957	27	1998	16	27	1947	1.5	1998	4.0	1.5
Japan	1981	100	1996	51	43[1]	1953	0.4	1989	3.0	1.1[1]
Germany	1973	25	1993	13	21	1973	1.3	1998	2.8	1.3
France	1973	30	1973	12	20	1964	1.7	1998	4.5	1.7
Italy	1986	29	1994	17	26	1981	0.8	1981	2.3	1.1
United Kingdom	1970	23	1994	13	22	1963	2.8	1998	4.7	2.8
Canada	1956	255[2]	1994	20	32	1956	1.4	1998	3.4	1.4
Belgium	1961	29	1967	16	25	1961	1.6	1998	4.3	1.8
Netherlands	1973	26	1997	10	24	1973	1.8	1998	4.8	1.8
Switzerland	1973	29	1998	13	29	1973	1.0	1995	2.9	2.4

[1] February. [2] Exceptionally high owing to very low earnings due to write-offs.

Sources: Datastream and national data. Table V.1

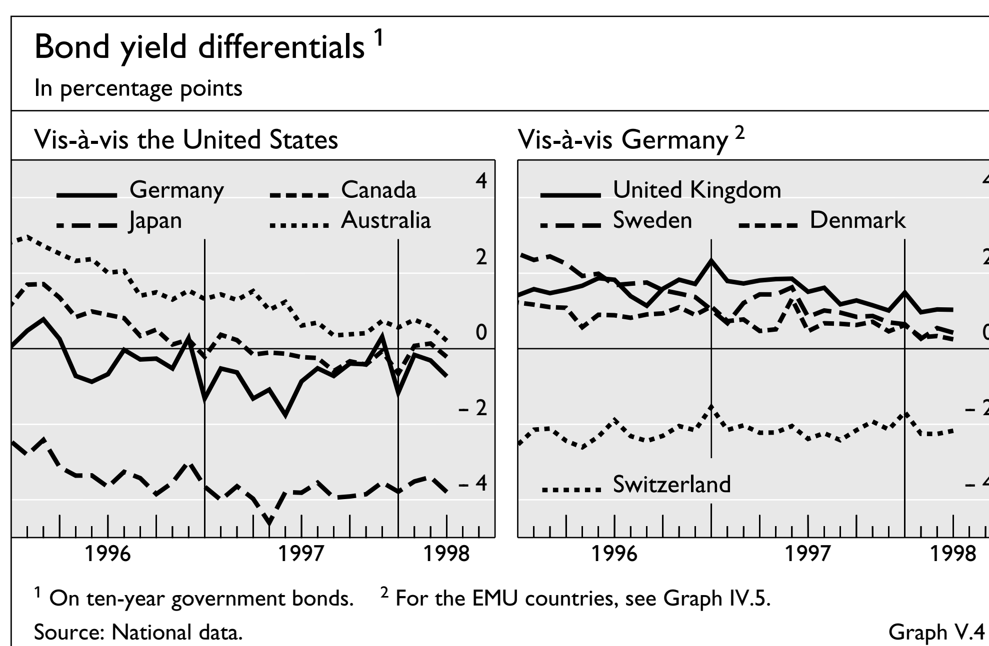
are currently hovering. The steady decline in inflation during the 1990s and the associated gains in terms of monetary policy credibility have generally led to a lower variability of inflation and short-term interest rates. Furthermore, lower inflation rates can mitigate the distortive effects that existing tax rules have on the net returns to financial assets. A permanent reduction of inflation could thus have set the stage for an era of higher asset values.

Bond markets

Since the peaks of October 1994, bond yields have continued to drift downwards and by late 1997 had reached levels near historical lows. In continental Europe and Japan, these were generally the lowest levels for 30 years while in the United States they were within range of the trough reached in the autumn of 1993.

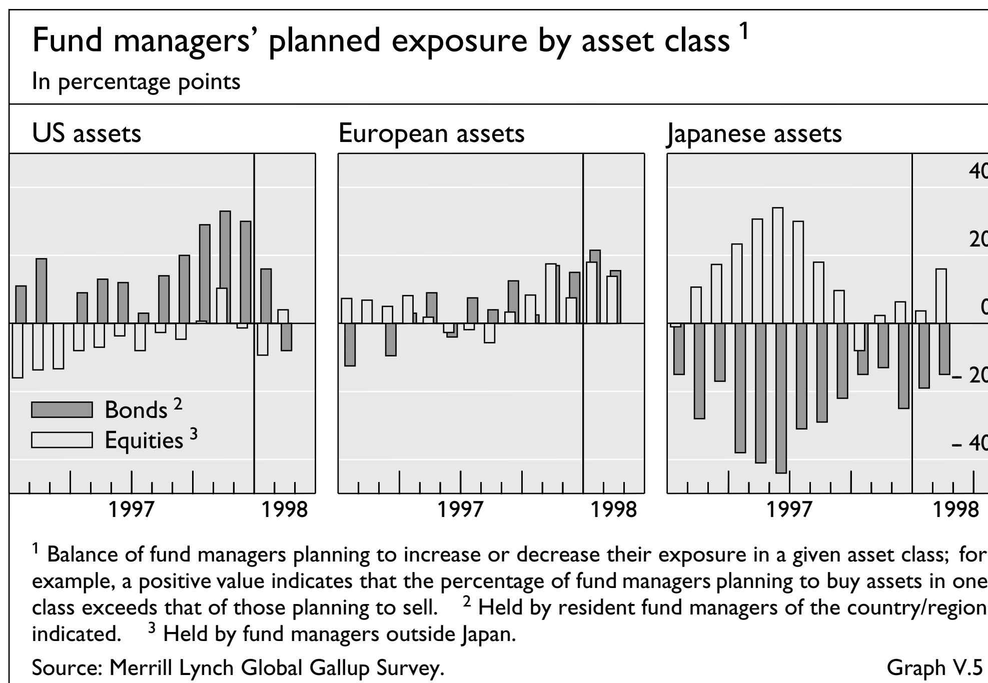
Bond yield differentials [1]

In percentage points



[1] On ten-year government bonds. [2] For the EMU countries, see Graph IV.5.

Source: National data. Graph V.4

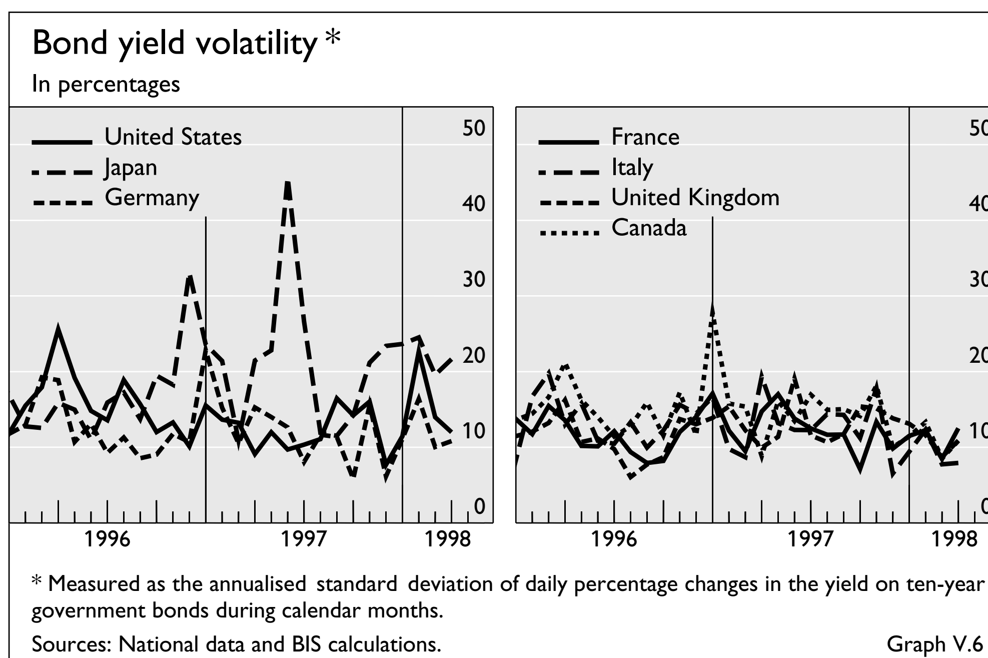


[1] Balance of fund managers planning to increase or decrease their exposure in a given asset class; for example, a positive value indicates that the percentage of fund managers planning to buy assets in one class exceeds that of those planning to sell. [2] Held by resident fund managers of the country/region indicated. [3] Held by fund managers outside Japan.

Source: Merrill Lynch Global Gallup Survey. Graph V.5

Strong bond yield convergence …

The global scope of the bull market in bonds concealed some divergent patterns. In Europe, the marked yield convergence spurred in 1996 by narrowing inflation spreads and extensive fiscal consolidation strengthened further (Graph V.4). In the United States, the market-place shrugged off declines in unemployment to levels that were formerly seen as heralding accelerating inflation. Even the rise in official rates in March 1997, widely anticipated amid signs of continuing economic strength, did not prevent bonds from rallying, as monetary policy was expected to be effective in counteracting domestic inflationary pressures. The explanation for continuing low rates is quite different for Japan, where cyclical prospects were fading and financial problems were highlighted by the failure of some major banks and securities firms.



* Measured as the annualised standard deviation of daily percentage changes in the yield on ten-year government bonds during calendar months.

Sources: National data and BIS calculations. Graph V.6

Nominal and inflation-adjusted real estate prices								
	Nominal prices				Inflation-adjusted prices			
	1994	1995	1996	1997	1994	1995	1996	1997
	indices, 1993 = 100							
	Residential property prices							
United States	102	104	109	116	100	99	100	104
Japan[1]	98	96	94	93	98	95	94	91
Germany[2]	102	101	101	96	99	97	95	89
France	98	98	100	100	97	95	94	94
United Kingdom	103	103	107	117	100	98	99	104
Canada	103	98	98	101	103	96	94	95
Spain	101	104	106	108	96	95	94	93
Netherlands	109	113	124	136	106	108	116	125
Australia	108	110	114	127	106	103	104	116
Switzerland	100	98	88	86	99	95	85	83
Belgium	108	113	118	122	105	108	111	113
Sweden	105	105	106	114	102	100	100	107
Denmark	112	121	134	147	110	116	126	136
Norway	113	122	132	143	111	117	125	133
Finland	106	102	108	126	105	100	105	122
Ireland	104	112	125	145	102	106	117	134
	Commercial property prices: major cities							
New York	109	109	119	137	107	104	109	123
Tokyo[1]	84	69	60	55	83	69	60	54
Frankfurt	87	85	85	81	85	81	80	75
Paris	94	84	79	83	93	81	74	77
Milan	85	85	78	75	82	78	69	65
London	125	134	141	161	122	126	129	144
Toronto[3]	88	81	78	90	88	79	75	85
Madrid	98	97	116	125	93	89	102	108
Amsterdam	110	120	129	140	107	114	121	129
Sydney	121	123	128	137	119	116	117	125
Zurich	97	94	88	87	96	92	85	83
Brussels	94	94	100	103	92	90	94	95
Stockholm	131	170	179	214	128	162	170	202
Copenhagen	97	103	103	115	95	99	97	106
Oslo	108	117	125	142	107	112	119	131
Helsinki	112	118	119	124	111	115	116	119
Dublin	114	128	153	193	112	122	143	179

[1] Land prices. [2] Four major cities. [3] Price index for offices in Ontario.

Sources: Frank Russell Canada Limited, Jones Lang Wootton, Ministère de l'Équipement, du Logement, des Transports et du Tourisme, National Association of REALTORS, OPAK (Oslo), Sadolin & Albæk (Copenhagen), Sherry FitzGerald (Dublin), Wüest & Partner (Zurich), various private real estate associations and national data. Table V.2

… reinforced by conjunctural circumstances …

Several factors lent support to these international bond developments. Broadly put, long-term interest rates have been much influenced by the anticipation of higher growth at low inflation rates. In addition, a traditional "flight to safety" effect was felt as the turbulence in South-East Asian countries prompted investors to reassess their exposures and repatriate funds away from stock markets. Survey evidence suggests that, during this period, a majority of

fund managers outside Japan were planning to reduce their equity exposure in the United States and Europe, while exposure to domestic bond markets was increased (Graph V.5). Finally, the need to manage sizable financial risks in a period of high volatility contributed to raising the demand for government bonds as hedging instruments, at a time when the trimming of fiscal deficits tended to restrict the available supply.

… but some market nervousness remains

Data relating to bond yield volatility (Graph V.6) indicate that, by early 1998, tensions generated by the Asian crisis had abated. However, uncertainty could return quickly. The investment community's recent experiences with currency crises may have left it susceptible to fears that such turbulence could be repeated. In such circumstances, associated shifts into traditional safe-haven currencies would tend to stimulate international bond markets. However, there would be a possibility of large sales of US securities in the event of liquidity crunches elsewhere, and this could have the opposite effect.

Real estate markets

Mixed performance in real estate markets

After several years of poor performance, due in large part to previous excesses, real estate prices rose in many countries at a rate well above prevailing inflation rates in 1997, with or without the corresponding support of private credit. Japan and a few countries in continental Europe remained largely untouched by the rebound, although in places there were signs of a slight improvement.

Residential property values were comparatively buoyant in Benelux, Nordic and most English-speaking countries (Table V.2). They were generally weak in Canada and continental Europe, offering at best partial compensation for inflation. In Japan, the substantial fall in residential land prices further constrained the liquidation of collateral by Japanese banks holding non-performing loans.

The commercial property segment presented the same broad geographical pattern with somewhat sharper distinctions. The increases in prices from the previous year exceeded 26% in Dublin, and 19% in Stockholm for prime-quality office property. At the other end of the spectrum, commercial land in central Tokyo has lost two-thirds of its nominal value since its peak in 1990. In between, signs of a possible recovery were emerging in some major European cities, as office rental values tended to firm and the proportion of doubtful property loans appeared to be approaching a turning-point.

Institutional investors and financial markets

The events of 1997 have once more focused attention on institutional investors and their impact on financial market stability. Questions were raised regarding the part played by these collective investment vehicles in the wave of currency crises that affected the South-East Asian economies. Moreover, their contribution in supporting the upward trend in equity prices in industrial countries, as well as their behaviour during the market correction of late October, invites assessment.

Assets exceed GDP but considerable scope for growth remains

The growth of the professional asset management industry is a key feature of the structural changes in the international financial system. It represents a development that has implications for many different aspects of the financial landscape: market turnover, securities issuance, international capital flows,

Institutional investors in a global perspective, 1995

	Pension funds	Insurance companies			Investment companies			Aggregate	
		Total	Life insurance	Non-life insurance	Total	Open-end	Closed-end		
	Financial assets as a percentage of the global sector total								US$ bn
United States	62	35	33	44	57[1]	63	57	50	10,501
Japan[2]	9	24	27	16	8[3]	–	–	14	3,035
Germany	1	8	7	12	6	7	–	5	1,113
France	0	7	7	8	9	11	–	6	1,159
Italy	1	1	1	2	1	1	–	1	223
United Kingdom	11	10	11	6	4	3	29	9	1,790
Canada	3	2	2	2	2	2	–	2	493
Spain	0.2[4]	1[3]	–	–	2	2	1	1	215
Australia[5]	1	2	1	2	1	1	2	1	255
Netherlands	5	3	3	1	1[3]	–	–	3	626
Switzerland	3	2	2	3	1	1	–	2	452
Belgium	0.1	1	1	1	1[6]	1[6]	–	1	156
Sweden	1[7]	2	1	2	1	1	10	1	267
Austria	0	1	1	0.2	1	1	–	0.4	82
Denmark	0.5	1	1	1	0.1[3]	–	–	1	116
Finland	1[8]	0.2	0.1	0.5	0	0	–	0.3	63
Portugal	0.1	0.1[3]	–	–	0.3	0.3	0.1	0.2	35
Luxembourg	0	0.1	0.1	0.1	6	7	–	2	369
Total	100	100	100	100	100	100	100	100	
North America	66	37	35	45	59	65	57	52	10,994
Europe	24	37	36	37	33	34	41	32	6,666
Total, in US$ bn	*6,710*	*8,088*	*6,276*	*1,702*	*6,152*	*5,340*	*238*		*20,949*
Total, in %	*32*	*39*	*30*	*8*	*29*	*25*	*1*	*100*	

[1] Including assets of bank personal trusts and estates ($740 billion) and Real Estate Investment Trusts ($26 billion). [2] Not including trust accounts of trust banks ($916 billion). [3] Distinction between categories not possible. [4] Total assets of non-autonomous pension funds. [5] Not including specialist institutions, which invest on behalf of government or groups of financial institutions and behave as institutional investors ($9 billion). [6] Including saving pension funds, which have the legal structure of investment companies ($5 billion). [7] Including pension funds within the social security sector ($88 billion). [8] Occupational pension schemes.

Sources: OECD, national data and BIS estimates. Table V.3

market stability, industrial organisation and corporate governance. The importance of institutional investment for the global financial system is readily apparent from the volume of financial assets under management (Table V.3), which exceeds that of aggregate GDP for the industrial countries concerned. At the same time, the uneven distribution of these assets across countries is indicative of the considerable scope for further growth, particularly in continental Europe.

The following sections highlight the principal structural characteristics of the professional asset management industry and discuss how this framework may affect asset allocation decisions. After a review of the responses of various players to recent events, as well as past episodes of market turbulence, the implications

of the growing institutionalisation of savings for financial stability are considered and possible policy lessons are drawn.

The players: description and growth

At the core of an asset management relationship lies a pool of assets, the returns on which are shared by two types of actor: the principal owners of the assets and the professionals who manage the portfolio on the owners' behalf. Different classes of institutional investor can be characterised in terms of the contractual relationship between the two actors, that is, the rules that determine the distribution of risks and returns.

Institutional investors distinct from proprietary desks

The accepted definition of institutional investors comprises collective investment institutions, insurance companies and pension funds. From the viewpoint of their impact on short-term financial market dynamics, a distinction between these institutions and the proprietary trading desks of financial and non-financial companies is arguably arbitrary. Nevertheless, asset allocation decisions by institutional investors are likely to have a greater bearing on longer-term asset price cycles by virtue of the larger size of their portfolios and a historically greater propensity to follow buy-and-hold strategies, compared with the (shorter-term) speculative nature of proprietary desk activities. Furthermore, the incentive structure that characterises the delegated portfolio management framework can itself give rise to distinct patterns of investment behaviour that impact on market stability.

Collective investment institutions (mutual funds and hedge funds) offer products with an enhanced risk/return profile and greater liquidity by exploiting the synergies created from pooling the assets of many investors and economising on transaction and management costs. The investor is the residual claimant and bears all associated risks. In the case of mutual funds, the portfolio manager's

Growth of investment companies[1]

	Total net assets									
	1987	1990	1993	1996	by type of fund, in 1996, as a % of assets				*in 1996 as a % of*	
	in billions of US dollars				Money market	Bond	Equity	Balanced	*GDP*	*market capitalisation[2]*
United States	770	1,069	2,075	3,539	25	22	49	3	*46*	*15*
Japan	305	336	455	420	29	45	24	2	*9*	*4*
Germany	42	72	79	134	16	56	25	3	*6*	*4*
France	204	379	484	529	45	29	11	14	*34*	*18*
Italy	51	42	65	129	36	39	17	7	*11*	*5*
United Kingdom	68	89	131	188	0	5	88	6	*16*	*8*
Canada	16	21	86	155	15	9	52	14	*26*	*14*
Spain	4	12	72	136	51	41	3	6	*23*	*14*
Netherlands	16	24	46	67	10	30	54	6	*17*	*8*
Luxembourg	74[3]	85	248	352	25	52	18	5	*1,840*	*337*

[1] Open-end funds invested in transferable securities and money market instruments. [2] Excluding money market funds. [3] 1989.

Sources: Fédération Européenne des Fonds et Sociétés d'Investissement, Investment Company Institute, Investment Funds Institute of Canada, International Finance Corporation and Salomon Brothers. Table V.4

remuneration is typically based on the volume of assets under management, while in the case of hedge funds it is invariably also a function of performance.

Mutual funds appeal to the retail investor

Mutual funds are becoming the primary vehicle for individuals' investment in marketable securities. Low minimum investment requirements and a well-defined regulatory framework enhance their appeal to the retail investor. However, a sizable portion of mutual fund shares is also held by other institutional investors seeking inexpensive access to expert portfolio management in a particular asset class. The sector has experienced very strong growth globally, but the cash inflow has benefited different fund specialities unevenly in different countries (Table V.4). In North America, the combination of low bank deposit rates and an improved capacity to offer products with chequing facilities boosted inflows into money market mutual funds during the latter part of the 1980s, while the continuing bull market has since contributed to the swelling of equity fund portfolios. In France, as in many continental European countries, inflows have favoured funds with a fixed income or balanced orientation over pure equity funds. The United Kingdom and Japan have experienced a decline in the share of total assets invested in equity funds over the last few years. For the UK investment trusts this may reflect a marginal adjustment towards global averages from an atypically high share of equity funds. In the case of Japan, however, the decline is more likely a consequence of the sluggish performance of the country's stock market in recent years.

Hedge funds

What sets hedge funds apart from mutual funds is their speculative nature. Their target clientele of high net worth individuals and institutions is characterised by a greater tolerance for risk, and it is not unusual for the manager of the fund to have personal capital invested with the fund as well. In addition, by operating as onshore investment partnerships or offshore investment funds, they are not subject to the same regulatory and disclosure requirements as mutual funds. Hedge funds represent a very small segment of the institutional investor market despite having experienced annual compound growth rates of the order of 40% since 1990. Assets under management reportedly totalled $90 billion by the end of 1997. The reputation of hedge funds as agile and aggressive investors stems from their ability to assume short positions and make unencumbered use of leverage in order to take full advantage of profitable opportunities.

Pension funds:

Funded occupational or individual pension schemes represent the private sector alternatives to the typically non-funded social security system. *Pension funds* collect contributions from the beneficiary and the sponsor (typically a large employer or a trade union) and invest for the purpose of providing for the retirement entitlements of the former. The management of the investments may be performed by the fund itself or, as is frequently the case, may be partially or totally delegated to outside professionals. Defined benefit and defined contribution schemes differ significantly in the distribution of investment risk between the sponsor and the beneficiary.

defined benefit …

In defined benefit schemes, which account for the majority of plans, pension entitlements are calculated on the basis of the employee's salary profile and formally represent a liability of the sponsor, who is required to cover any funding shortfall. The beneficiary's risk is limited to the event of a sponsor's bankruptcy. In contrast, under defined contribution

Growth of pension funds							
	Total financial assets						
	1980	1985	1990	1993	1996[1]		
	in billions of US dollars					as a % of GDP	as a % of household wealth
United States	701	1,606	2,492	3,449	4,752	62	20
Japan	..	..	343[2]	460	442[3]	10[3]	4[3]
Germany	15	22	52	47	65	3	2
Italy	..	..	39	34	43	4	2
United Kingdom	116	224	537	682	897	77	25
Canada	42	75	165	187	241	40	20
Australia	..	45[4]	45	78	100	29	22
Netherlands	77	105	230	262	363	92	..
Switzerland	..	107[5]	138	148[6]	189	73	..
Sweden	..	..	79	71	93	40	38

[1] For Italy and Australia, 1995; for Switzerland, 1994. [2] 1991. [3] Estimated. [4] 1988. [5] 1987. [6] 1992.

Sources: OECD, national data and BIS estimates. Table V.5

… and defined contribution schemes

schemes the beneficiary has a choice of alternative investment vehicles (frequently in the form of mutual funds) among which to allocate regular salary deductions and the sponsor's contributions. The investment risk is borne entirely by the beneficiary, whose entitlement is determined by the cumulative performance of the selected portfolio mix by the time of retirement.

The aggregate growth of pension fund assets has exceeded that of GDP, but its international distribution has been skewed towards countries that have promoted funded pension systems in the past, such as the United States, the United Kingdom and Canada. Growth has been lowest in countries that have traditionally placed greater emphasis on pay-as-you-go social security plans, most notably continental European countries (with the exception of the Netherlands and Switzerland). Reduced sponsor risk and greater portability across employers have fuelled the rapid growth of defined contribution schemes in recent years. At the end of 1996 such schemes accounted for $577 billion of total US mutual fund assets, a share of 16% compared with 11% in 1992. Defined contribution schemes have also been favoured in many countries by recent legislation aimed at pension system reform, including Australia and Italy.

Insurance companies

Even if large portions of *insurance companies'* portfolios did not consist of tradable assets, it would be hard to distinguish them from other categories of institutional investor, especially pension funds, on the basis of the nature of their products and functional links. A prime example is life insurance companies, which represent the largest segment of the insurance industry, and which offer products such as annuities and guaranteed investment contracts tailored to the needs of individual and collective pension plans. In some countries (Japan, Switzerland, Sweden and Denmark) life insurance companies may actually offer portfolio management and administrative services to pension funds.

Partly because it was already more developed, the overall growth of the insurance industry over the last decade has been slower than that of investment

Growth of insurance companies

	Total financial assets									
	1985		1990		1993		1996[1]			
	Life	Non-life	Life	Non-life	Life	Non-life	Life	Non-life	Life	Non-life
	in billions of US dollars								as a % of GDP	
United States	796	299	1,367	533	1,780	642	2,272	780	30	10
Japan	271[2]	–	887	180	1,387	233	1,691	265	33	5
Germany	108	47	285	116	320	132	478	214	20	9
France	57	17	184	55	279	84	450	132	29	9
Italy	10[3]	14[3]	36	30	46	29	60	40	6	4
United Kingdom	160	30	384	70	592	75	697	95	63	9
Canada	55	13	111	27	122	27	142	33	24	5
Spain[2]	8	–	50	–	58	–	107	–	18	–
Netherlands	39	7	101	16	130	17	214	30	55	8
Switzerland	..	..	79	36	94	37	117	44	45	17
Sweden	34[4]	–	64	15	67	18	93	28	40	12

[1] For France, Italy, the United Kingdom and Sweden, 1995; for Switzerland, 1994. [2] No distinction is possible between life and non-life insurance companies. [3] 1986. [4] Insurance companies and autonomous pension funds.

Sources: OECD, national data and BIS estimates. Table V.6

companies. However, underscoring the complementarity of their respective product lines, the growth of the insurance sector has been particularly strong in countries that lag in terms of the development of occupational pension funds.

Several factors have fuelled growth

It is the combined influence of a number of factors that has underpinned the surge in the growth of institutional investors in the past few years. Chief among these is the global wave of deregulation which, by sweeping away long-standing barriers to competition, has given unprecedented impetus to market forces. Responding to the realities of the modern market-place, and motivated by the realisation that pay-as-you-go schemes will soon come under severe demographic pressure, governments in many countries have provided legal and fiscal incentives in order to promote the development of funded schemes. A further contributory factor has been the prolonged period of asset price growth which, brief periods of correction apart, has consistently delivered high portfolio returns over a period of 15 years and attracted new funds in search of continuing profits. Finally, mutual fund growth is an expression of a new equity culture that is spreading across the retail investor base even in countries that have traditionally lagged in the field of stock ownership by households.

Issues in asset allocation

Structural differences affect asset allocation

The allocation of savings, both at the strategic level of determining the broad portfolio configuration in terms of asset classes, and at the tactical level of specific securities selection, is not independent of the context within which decisions are taken. Increased institutionalisation of savings will have implications for asset allocation to the extent that differences in motivation, as well as in the perception of risk and reward, between individuals and institutions result in different investment behaviour. An illustration of this divergence can be found in the typical composition of defined benefit and defined contribution portfolios in the United

States. Defined benefit plans, where strategic asset allocation reflects the sponsors' greater risk tolerance, tend to have a higher proportion of equities and a smaller share of bonds and money market investments than comparable portfolios of defined contribution plans chosen directly by the beneficiaries.

Increased internationalisation …

The large increase in international capital flows over the last several years has also been reflected in the geographical composition of institutional investors' portfolios. A look at the available statistics points to a number of stylised facts. Generally, equity holdings tend to be more diversified internationally than holdings of fixed income securities, owing to the fact that, after adjustment for currency risk, foreign bonds do not offer the same long-run diversification benefits as equities. The share of foreign assets is highest in pension fund portfolios, while insurance companies tend to be the least geographically diversified group. While the share of emerging market investments has been increasing in recent years, international holdings by institutional investors from industrial countries tend to be concentrated on securities from the same group of countries.

… has little impact on home bias …

Despite their recent growth, international investments represent a much smaller share of institutional investor portfolios than one might have expected on the basis of the relative capitalisation of national markets. This bias towards domestic securities appears too strong to be explained by the obvious barriers to foreign investment: higher transaction and information costs, exchange rate risk, as well as legal, regulatory and tax considerations. Current diversification levels appear less puzzling, however, if one takes into account the structure of institutional investors' liabilities. The fixed income characteristics of insurance companies' liabilities limit considerably the potential benefits of international diversification, while the potential for gains is greatest in the case of mutual funds, which have a simpler liability structure.

International diversification of institutional portfolios, 1996

	Pension funds		Insurance companies[1]		Investment companies		Market capitalisation as a % of world[4]
	Total[2]	Equities[3]	Total[2]	Equities[3]	Total[2]	Equities[3]	
	as a percentage of asset class						
United States	11	16	7	4	7	10	45
Japan	23	35	13	10	–	–	16
Germany	4	21	–	–	–	–	4
France	–	–	1[5]	1[5]	–	–	3
Italy	–	–	15	40	16	34	1
United Kingdom	28	28	18	19	15	16	9
Canada	17	37	26[6]	30[6]	37	40	3
Australia	20	27	22	29	–	–	2
Netherlands	30	58	18	21	7	9	2
Sweden	6	27	16	36	20	23	1
Switzerland	16	33	–	–	49	51	2

[1] 1995. [2] Foreign equities and bonds as a percentage of total equities and bonds. [3] Foreign equities as a percentage of total equities. [4] Based on the IFC Investable index for emerging markets. [5] 1994. [6] 1991.

Sources: OECD, Fédération Européenne des Fonds et Sociétés d'Investissement, International Finance Corporation and Watson Wyatt. Table V.7

An aspect of the international diversification of institutional investor portfolios that is easily masked by these figures is the asymmetry between the investor and the recipient perspectives, especially in the case of emerging economies. The high concentration of institutional assets in some of the most financially developed countries contrasts with the relatively small size of many recipient markets. This asymmetry, coupled with the ebbs and flows that have historically characterised portfolio investment in emerging economies (see Chapter VII), highlights the potential for instability as a marginal portfolio adjustment by the investor can easily amount to a first-order event for the recipient. For example, a hypothetical shift of 1% of equity holdings by institutional investors in the G-7 countries away from domestic equities would represent slightly more than a 1% share of total market capitalisation in 1995. The same funds would be equivalent to a 27% share of market capitalisation in emerging Asian economies, and a share of over 66% of Latin American equity markets.

… and masks an imbalance in perspective

Investor diversity and positive feedback mechanisms

Much as in an ecosystem, stability in the financial system derives from the coexistence of participants with divergent objectives and mutually complementary behaviour. Financial market volatility and asset mispricing breed on an imbalance between the intensity of the sellers' need to liquidate and the buyers' desire to acquire assets of a particular class. The implications of the growing share of savings that is channelled through institutional investors for the diversity of behaviour among market participants are an open question. On one hand, both the motives and the attitude towards risk can vary substantially across different types of institutional investor. In this respect the continuing growth across the spectrum of investor types will tend to promote the diversity of financial market players. At the same time, however, there are prima facie reasons to believe that risk and reward structures embedded in a delegated portfolio management relationship could impair managers' ability or willingness to take contrarian positions, thus reinforcing a herd-like type of behaviour. Furthermore, the increased institutionalisation of savings is part and parcel of the incipient broadening and deepening of securities markets. Shifting market attitudes, from an unhindered search for high returns to defensive avoidance of risk, find expression in institutional investor allocation decisions. Such shifts may frequently be amplified by mechanisms that feed back from asset price movements to institutional asset demand, which in turn further reinforces the price trend.

Participants' diversity promotes financial market stability

Industry trends imply a shift in the responsibility for strategic allocation away from the professional manager of the asset pool and towards the owner of the assets who ultimately bears the investment risk. The growth of mutual fund investments at the expense of bank accounts, the development of funded pension schemes, and within those the increased emphasis on defined contribution plans, are all expressions of this shift. As a result, a greater variety of individual actor preferences and views can find direct expression in asset allocation decisions.

While some trends encourage diversity …

The trend is also supported by two parallel developments in the fund management industry: the emergence of identifiable investment styles and the role of investment consultants. Both mutual funds and independent asset

managers of pension funds tend to concentrate on single asset class portfolios, frequently following a specific investment philosophy in choosing securities, usually referred to as an "investment style". Style classification becomes an effective device for communicating with investors, who allocate assets across different classes by dividing their funds between managers adopting different styles, and with investment consultants who monitor and evaluate managers' performance against appropriate style benchmarks. At the same time, as manager mandates become more narrowly defined, mutual fund depositors and pension fund sponsors bear more of the responsibility for large swings of funds between asset classes.

… others lead to herding …

One mechanism by which the dynamics of the delegated portfolio management relationship may discourage diversity derives from the frequent evaluation of money managers' investment performance against market benchmarks. The fear that underperformance, even if it could be attributed to purely random events, may lead to cash outflows and hence lower management fees creates the incentive to avoid positions that can result in large deviations from the benchmark. Managers' incentive to follow each other's trading strategies closely is further strengthened when the evaluation is performed against a peer universe. Underperformance together with the rest of the group will be less damaging to the individual than the risk of being singled out after a contrarian bet proves disappointing. Casual anecdotal evidence of market participants' inclination to follow the leadership of their most successful peers lends support to the theoretical arguments. Empirical verification of such behaviour is confronted with difficult identification problems and the possibility that herding is accentuated during periods of market stress. The limited body of existing research focuses mainly on short-horizon stock-picking by asset managers, and its findings suggest that while herding exists it is not a large-scale phenomenon.

… and momentum-building mechanisms

While herding refers specifically to professional asset managers' trading patterns, the framework of asset allocation by institutional investors can give rise to positive feedback mechanisms that tend to reinforce asset price momentum. One such mechanism is the combined result of asset managers' desire to conform to a specific investment style and investors' tendency to reward good performance with higher fund inflows. As managers are unlikely to deviate from their declared investment style, the new cash inflow will tend to be invested in the same asset class. Indeed, some commentators fear that record inflows to equity mutual funds on the heels of the strong first-quarter performance of stock markets in 1998 may reflect the unrealistic expectations of small investors.

A similar, albeit a more subtle, mechanism operates when the asset management objective is simply to replicate the returns of a benchmark index. Because many widely used indices are capitalisation-weighted averages, the weights vary in line with the proximate performance of the index components, influencing the allocation of new funds to the constituent markets. An example of this effect can be seen in the relative weights of Asia and Latin America in the IFC Investable index, which in the aftermath of the South-East Asian crisis were 24% and 41% respectively. This was an almost complete reversal from their January 1997 levels of 45% and 34%, and may have contributed to the sluggishness of portfolio flows back to the Asian economies.

Minimum standards regarding the creditworthiness of the securities they may hold can also compromise the ability of some types of institutional investor to assume contrarian positions. Such minimum standards in some cases reflect the regulatory framework, but often are self-imposed, for example by the trustees of pension funds. Following the downgrading of a certain class of borrower, investors may have no choice but to liquidate their holdings even if they believe that the situation may reverse itself in the near future.

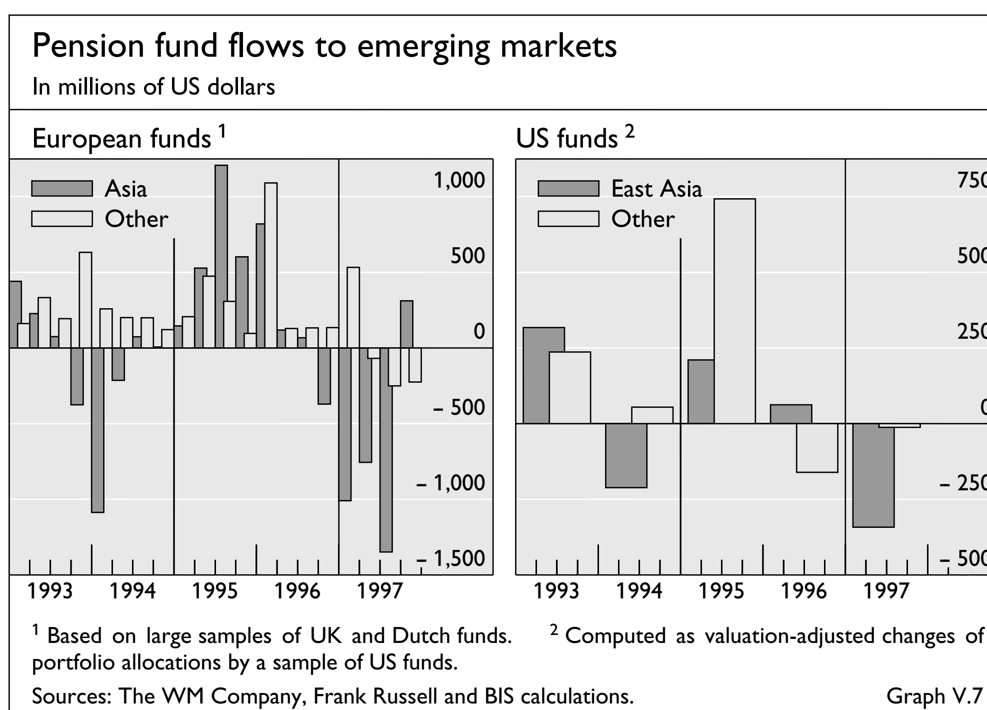
Good performance by the pension fund's portfolio, which generates revenue in excess of actuarial funding requirements, frequently results in contribution holidays for the sponsor. It has been suggested that a multiplier mechanism then operates through higher corporate earnings that feed back into higher stock prices and more holidays. The implicit assumption is, of course, that any counterbalancing effect for stock price growth resulting from reduced sponsor contributions to the fund fails to neutralise this positive effect of higher earnings.

The response of institutional investors to the events of 1997

The contagious currency crises that affected the South-East Asian countries after July 1997, and the generalised equity market turbulence in October last year, offer an opportunity to examine the behaviour of institutional investors in periods of turmoil. It is also instructive to compare their responses with those of other financial market players, as well as with previous episodes of market stress, in order to evaluate their impact on financial market stability.

Pension funds withdrew from Asia early …

Portfolio allocation data for pension funds from the Netherlands, the United Kingdom and the United States show that these fund managers had embarked on a reduction of their exposure to Asia as early as the last quarter of 1996, possibly responding to the emerging signs of strain. While arguably the withdrawal may partly reflect a retreat from an originally overweight exposure, it is consistent with survey evidence of declining market enthusiasm for the region



Pension fund flows to emerging markets
In millions of US dollars

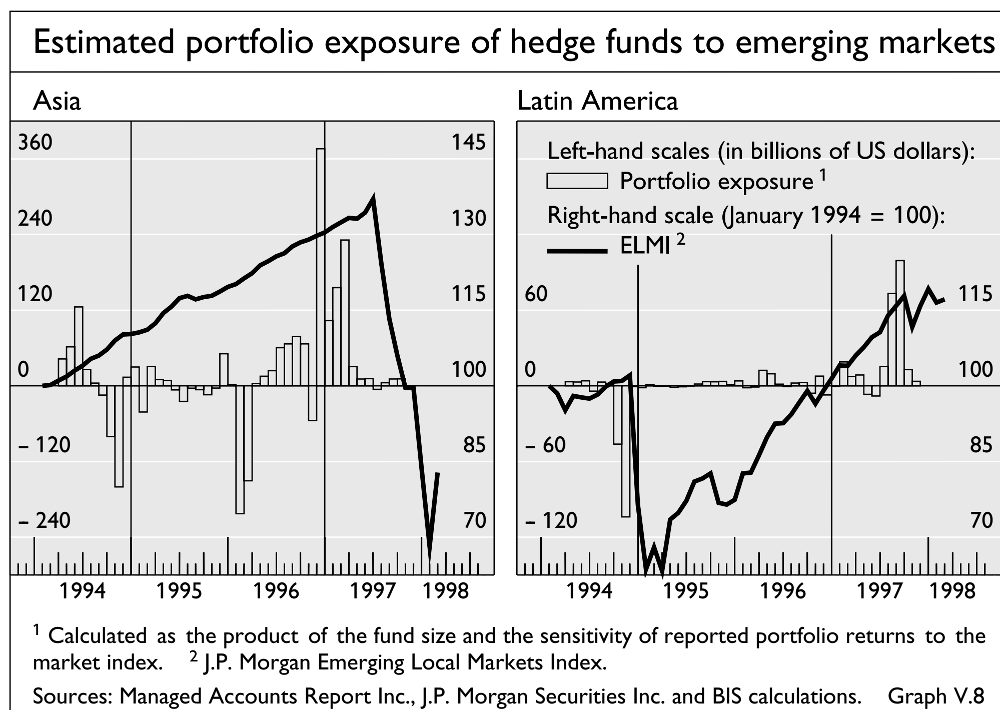
[1] Based on large samples of UK and Dutch funds. [2] Computed as valuation-adjusted changes of portfolio allocations by a sample of US funds.

Sources: The WM Company, Frank Russell and BIS calculations. Graph V.7

for a number of months before the outbreak of the crisis in July. The behaviour of these managers contrasts sharply with that of banks, which apparently continued to increase their exposure to Asian borrowers until the second quarter of 1997 (see Graph VIII.5). Whether this is a demonstration of greater insight on the part of pension fund managers, or bankers' unwillingness to withdraw quickly for fear of damaging customer relationships, needs further investigation. What is also unclear is the extent to which banks' investment decisions were influenced by safety net guarantees for interbank counterparties, or the anticipation of intervention by the international financial community in the event of a crisis. The fact remains, however, that the two types of institution exhibited different behaviour.

… and so did hedge funds …

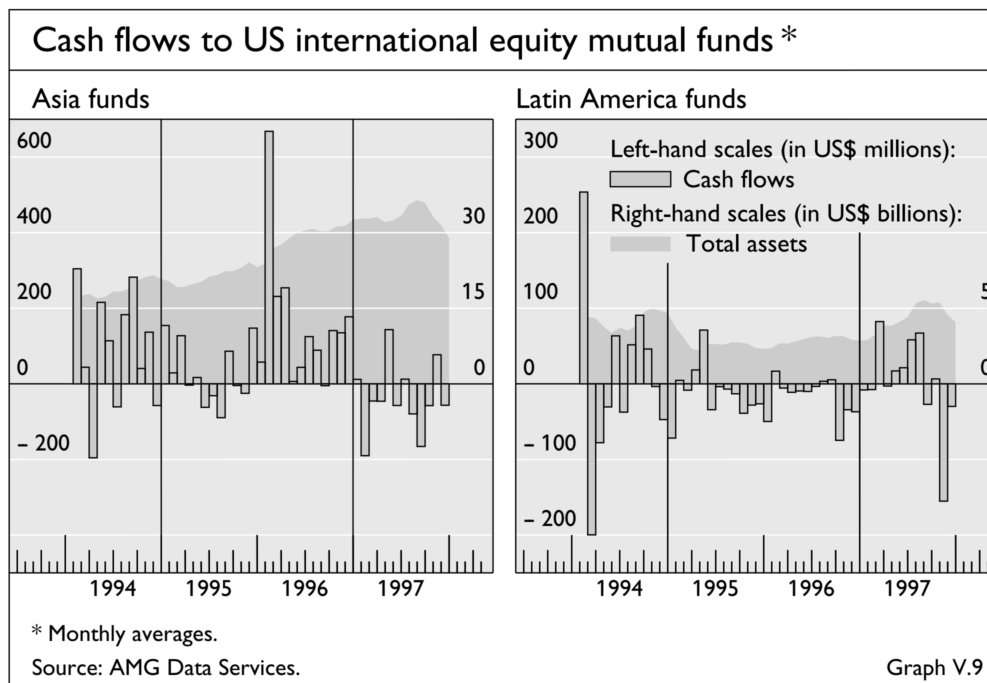
Hedge funds have acquired notoriety because of their aggressive investment practices and the relative secrecy of their activities. However, despite often-cited anecdotal reports, there is little concrete evidence that hedge funds as a group were heavily involved in triggering or even intensifying the series of South-East Asian currency depreciations. In the absence of publicly available figures on hedge fund positions, Graph V.8 presents statistical estimates of aggregate portfolio exposures for a group of funds specialising in global investments, including currencies, to Asia and Latin America during the period 1994–97. The exposures have been derived from the estimated sensitivity of the hedge funds' reported returns to the underlying markets and the funds' size. The graph shows that, while there was considerable exposure to Asia at the beginning of 1997, these long positions were substantially reduced a few months before the crisis. At the same time, positions were built up in Latin American countries. Moreover, on the basis of this analysis there appears to be no statistical evidence that these funds *as a group* had extensive short positions against Asian currencies at any time during or after the summer of 1997.



Estimated portfolio exposure of hedge funds to emerging markets

[1] Calculated as the product of the fund size and the sensitivity of reported portfolio returns to the market index. [2] J.P. Morgan Emerging Local Markets Index.

Sources: Managed Accounts Report Inc., J.P. Morgan Securities Inc. and BIS calculations. Graph V.8



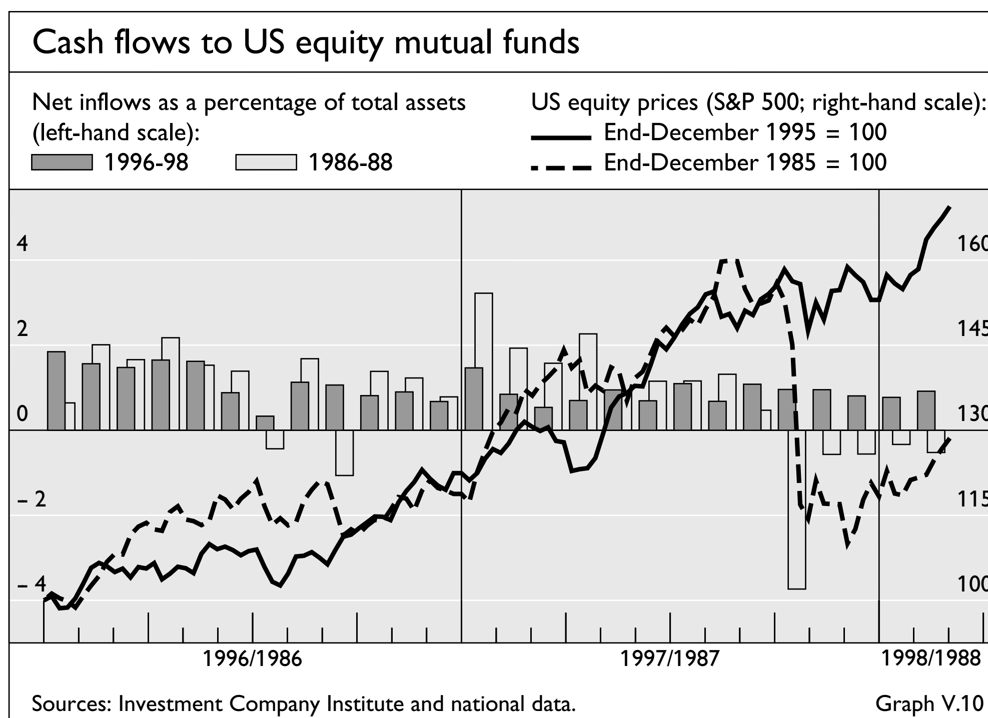
* Monthly averages.
Source: AMG Data Services.
Graph V.9

… while mutual fund investors withdrew from all emerging markets …

The behaviour of pension and hedge fund managers before, during and after the crisis in Asia contrasts with that of investors in US mutual funds specialising in emerging markets (Graph V.9). The investors' shift away from Asian and towards Latin American funds that started in early 1997 intensified during the summer months after the first episodes of depreciation. It then turned into a generalised retrenchment from both regions during the autumn, as the turbulence continued and its resonance was felt in industrial economies' equity markets. In contrast, at the outbreak of the Mexican crisis in December 1994, the flow towards Asian emerging market funds was only momentarily interrupted, suggesting that mutual fund investors' confidence in these economies was not affected by the events in Latin America.

… but not from the US stock market

The attention of many market players was focused on the reaction of the individual mutual fund investor during the days following the sharp fall in many equity markets in late October last year. The absence of heavy withdrawals was one of the factors that strengthened the market's belief that the episode was no more than a temporary correction. In fact, for the month of October, US equity funds registered a net cash inflow of the order of 0.8%, indicating the continuing confidence of retail investors in current market valuations. A comparison with previous episodes of sharp falls and heightened equity market volatility is instructive. In response to the October 1987 market break, withdrawals from equity mutual funds reached a record, with a net cash outflow of 3.7% of assets. Most of this amount was withdrawn during the three days after the stock market plunge, but net outflows continued for most of the next calendar year. In view of the relative size of the two equity price falls, and with the benefit of hindsight, it appears that the reaction of mutual fund investors in both cases was rather measured and their instincts were correct. Retail investor resilience helped restore liquidity in the market, thereby averting a protracted surge of asset price volatility like that during another episode in October 1989. Ex post analysis of



the events during that month has shown that, in the midst of generalised selling and investor nervousness, market-makers were unwilling to provide liquidity, thus further exacerbating the market's strains. In contrast the prompt recovery last October paved the way for a spectacular rise in equity prices in the first quarter of this year.

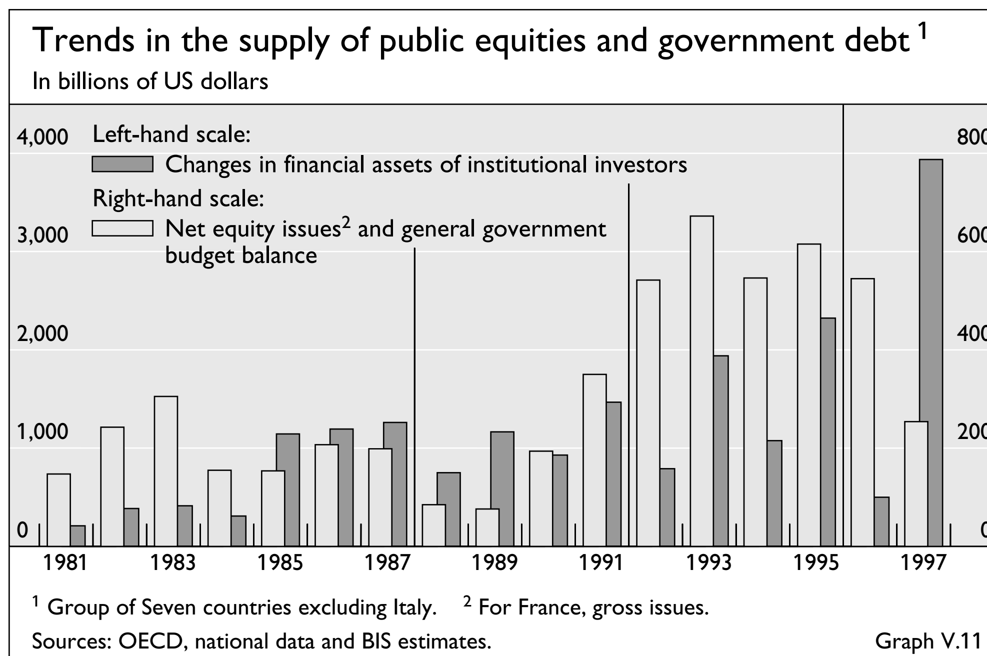
These various examples demonstrate that institutional investors' response is not necessarily uniform across different industries or in different situations. At the same time, however, independently of when different types of investor started reducing their exposure to South-East Asia, the region experienced a generalised withdrawal of funds by both bank and non-bank institutions during the second half of 1997. This illustrates how highly correlated strategies across different players may contribute to an aggravation of asset price movements. Given the size of institutional portfolios, even slight tendencies of this sort could potentially lead to large breaks in the price discovery mechanism.

Outlook

Institutional investors are a permanent feature of the financial landscape and their growth will continue at a similar, and perhaps even faster, pace. The factors that underpin their development are far from transitory and in many cases have only just started having an impact. The behavioural characteristics of institutional investors, therefore, will be an increasingly important determinant of domestic and international financial market conditions, and the implications for financial stability warrant serious consideration.

An imbalance between demand and supply of traditional instruments ...

A growing appetite for liquid, transferable securities that offer diversification possibilities is a natural consequence of the rapid growth of institutional investment. However, there has been a marked downward trend in the supply of such staples of pension and mutual fund portfolios as industrial country



[1] Group of Seven countries excluding Italy. [2] For France, gross issues.

Sources: OECD, national data and BIS estimates. Graph V.11

government bonds and publicly listed equities. Net new equity issues have been in decline in the United States for over four years, under the influence of a wave of mergers and acquisitions, which unlike in the late 1980s has not been financed by bonds, and corporate share buybacks aimed at increasing shareholder return. In addition, efforts towards fiscal consolidation throughout the industrial world (see Chapter II) imply a decline in the supply of highly rated government paper. Recent rates of asset price growth and historically high valuation ratios, discussed in the first part of this chapter, may thus, at least in part, be the temporary result of a structural imbalance between supply and demand trends.

… will boost alternative investments

Another implication of the imbalance between the portfolio needs of institutional investors and the supply of equities and government bonds is that demand will have to be satisfied by other asset classes. This is likely to give impetus to the markets for securitised debt, private equity, emerging market securities and other alternative forms of investment. It is also likely to encourage the further development of synthetic securities that replicate the risk/return characteristics of government paper through the use of structured derivative products. In fact, survey evidence shows that, during the past few years, alternative investments such as leveraged buyout funds, international private equity and venture capital have already made considerable inroads into institutional investor portfolios, with commitments standing at about $70 billion for US and Canadian pension funds. In continental Europe, institutional investor growth in combination with the establishment of a single currency area is also likely to further boost the development of the corporate bond market, which is lagging behind that of the English-speaking countries.

The consolidation trend challenges current regulatory structures

The consolidation trend across the entire spectrum of the financial services sector has implications for the industrial organisation of the asset management sector and its relationship with other types of financial institution. Asset management conglomerates are constantly growing in size, either naturally or through acquisitions. Over the past few months, there have been several well-

publicised cases of consolidation in the insurance industry, some of them cross-border. Moreover, two major structural events, the further liberalisation of the Japanese financial services market and the creation of the single currency market in Europe, will provide significant impetus to cross-border deals in the near future. Banks are already substantially involved in the production, marketing and distribution of collective investment products and have already started to venture into the insurance field. The pending merger of two major Swiss banks will create the largest asset management company in the world. There has also been a trend towards mergers or strategic alliances between banks and asset management companies with the objective of enhancing the links between the production and distribution of financial products. Successful pension funds in some countries will be tempted to expand the menu of financial services they provide, either by forging alliances with suppliers (banks and insurance companies) or by venturing into the creation of those products themselves. These developments raise questions about whether current regulatory structures, which remain fragmented along industry and national lines, are adequately suited to an emerging financial landscape where these borders are becoming increasingly blurred.

Does the growth of institutional investors contribute to financial instability? The answer is probably not as the primary cause of market turbulence, but, by virtue of the size of their portfolios, they are usually the main channel through which the changing moods of investors are transmitted to financial markets. The forces discussed above that could potentially induce institutional investors to engage in behaviour that might at times amplify asset price dynamics require further study. There is a need for those responsible for safeguarding financial stability at both the national and international level to understand the way various types of investor behave and react to market conditions. In an increasingly liberalised financial market-place of global proportions, understanding and managing market dynamics and their associated risks is the best insurance against excessive volatility that leads to costly crises.