

**INSTITUTIONAL INVESTORS, PENSION REFORM AND EMERGING SECURITIES
MARKETS***

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TABLE OF CONTENTS

INSTITUTIONAL INVESTORS, PENSION REFORM AND EMERGING SECURITIES MARKETS ...4	
1. Introduction.....4	4
2. Overview of the Growth of the Institutional Sector in the OECD Area .....5	5
Increasing institutional and functional overlaps .....9	9
3. Role of the Institutional Sector in Emerging Securities Markets .....10	10
The role of foreign institutional investors .....10	10
Forces shaping the role, structure and modus operandi of OECD institutional investors .....11	11
Scope for the development of a domestic institutional investor base in emerging securities markets.....12	12
The size of the institutional sector and the development of the capital market.....16	16
4. Obstacles in developing an institutional sector in emerging market economies.....19	19
Mutual funds.....20	20
Life insurance companies.....20	20
Pension funds .....21	21
5. Financial Market Infrastructure and Institutional Sector.....23	23
Financial market micro-structure .....25	25
6. Policy conclusions.....28	28
ANNEX I: REGULATION AND SUPERVISION OF OECD INSTITUTIONAL INVESTORS.....30	30
Insurance Companies .....30	30
Tax and regulatory aspects of life insurance activities .....30	30
Regulatory treatment of the non-life insurance business .....31	31
Pension Funds.....36	36
Investment Companies (Institutions for Collective Investment in Securities) .....44	44
The regulation of investment companies .....44	44
NOTES TO ANNEX I.....47	47
ANNEX II - STOCK MARKET DEVELOPMENT IN THE TRANSITION ECONOMIES, END 1996 ¹ 48	48

INSTITUTIONAL INVESTORS, PENSION REFORM AND EMERGING SECURITIES MARKETS

1. Introduction

1. Institutional investors have been growing in size dramatically over the past decades. Total assets under management of OECD institutional investors rose from 38 per cent of GDP in 1981 to around 106.5 per cent in 1995. The increasing importance of institutional investors as holders of financial assets means that their impact on the functioning of financial markets is steadily growing. Vice versa, their reliance on well-functioning of financial markets has also increased. In most OECD countries, institutional saving institutions -- in particular pension funds -- now play a key role in domestic financial systems¹.

2. The involvement of institutional investors in capital market transactions is increasing in tandem with their growing financial clout. A strong community of institutional investors seems to be a precondition for the development of liquid securities markets with sophisticated financial vehicles. In view of the growing influence that institutional investors exert on the structure and *modus operandi* of capital markets, the importance of capital markets for the real economy, corporate finance, and income security, it may be necessary for policy makers to take a closer look at the functioning and the regulation of these institutions. A full analysis would include the functioning and regulation of the fund management profession, the impact of changes in demography and the regulation of pension schemes on the efficiency of the allocation of savings, the influence of the international portfolio diversification of institutional investors, and the impact of tax regimes on the behaviour of institutional investors. Also the consequences of investment practices of institutional investors for the functioning of financial markets may need to be analysed.

3. Also in emerging financial markets the importance of institutional investors (both foreign and domestic ones) is steadily increasing. In particular pension reform has been an important factor in developing a domestic institutional sector in emerging market economies. This in turn has been a major force in the further development of securities markets. However, there is still considerable scope for promoting the growth of securities markets through the development of insurance companies and domestic mutual and pension funds. The paper will discuss the range of factors that can stimulate the further development of the domestic institutional sector, in particular through pension system reform measures. In doing so, the development of the institutional sector in emerging market economies will be compared with the experience in the OECD area, focusing in particular on the key factors that have been (and are) driving the growth of OECD institutional investor activities and the impact of institutional investors on securities markets.

4. In addition, the paper will identify obstacles in the development of the institutional sector in emerging markets and suggest policies to deal with these problems. It will be argued that these policies are also beneficial for the growth of the securities market. However, this is not sufficient. The efficient operation of institutional investors such as pension funds, requires the presence of a supporting securities market infrastructure. The paper will outline the key infrastructural elements and the associated financial policies, at both the micro and macro levels. In addition, attention will be paid to the more general

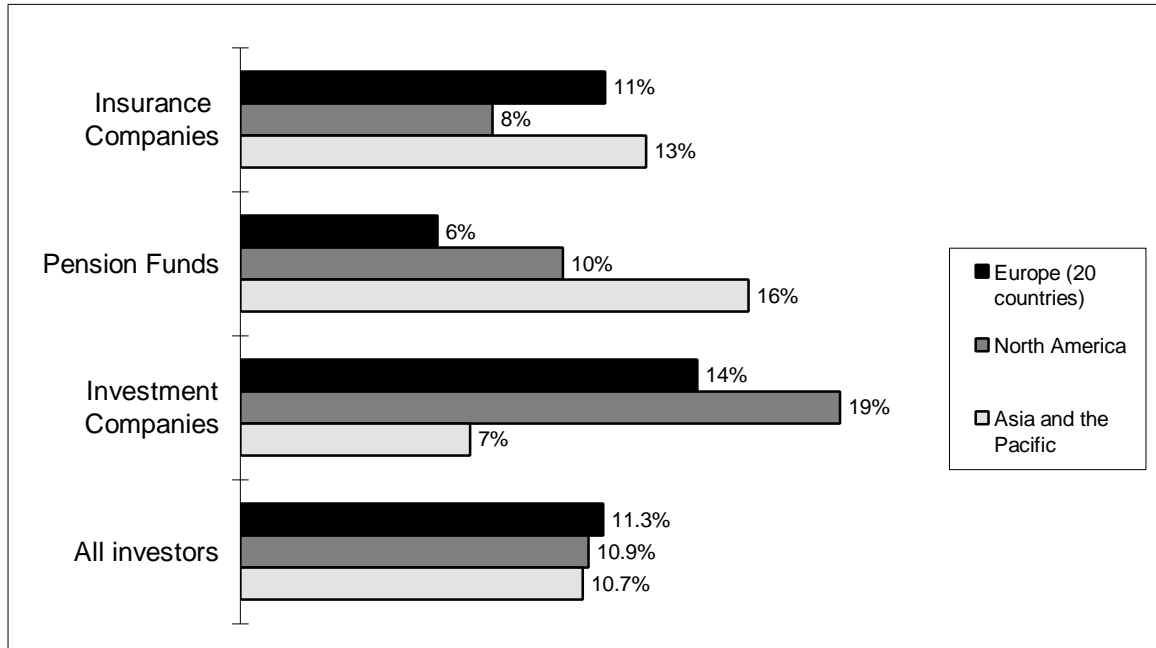
conditions (macroeconomic stability, tax regime, property right laws, bankruptcy legislation, privatisation of state-owned enterprises) that can be expected to promote the development of securities markets.

5. The paper is organised as follows. An overview of the development of institutional investors in the main OECD regions and countries is given in section 2. Section 3 will discuss the development of the institutional sector in emerging market economies in Latin America, Asia and the transition countries in Eastern Europe and the former Soviet Union and its impact on the growth of the securities market. These developments will be compared with the experience in the OECD area by focusing on the key factors that have been (and are) driving the growth of OECD institutional sector activities and the impact of the institutional sector on securities market development. Obstacles in developing an institutional sector in emerging market economies will be identified in section 4. Policies how to deal with these obstacles will also be suggested, in particular through a programme of pension system reform. Section 5 outlines the key infrastructural elements of a well-functioning securities market and the associated financial policies. In addition, the more general conditions that can be expected to promote the development of securities markets will also be identified. The final section presents policy conclusions.

2. Overview of the Growth of the Institutional Sector in the OECD Area

The importance of institutional investors is steadily increasing. Total institutional assets of the main regions in the OECD area rose from \$3.2 trillion in 1981 (i.e. 38 per cent of GDP), to \$16.3 trillion in 1991 (90 per cent of GDP), to more than \$24.3 trillion in 1995 (106.5 per cent of GDP). In the period 1990-95, average annual growth of holding by all categories of institutional investors has been spectacular [see Chart 1].

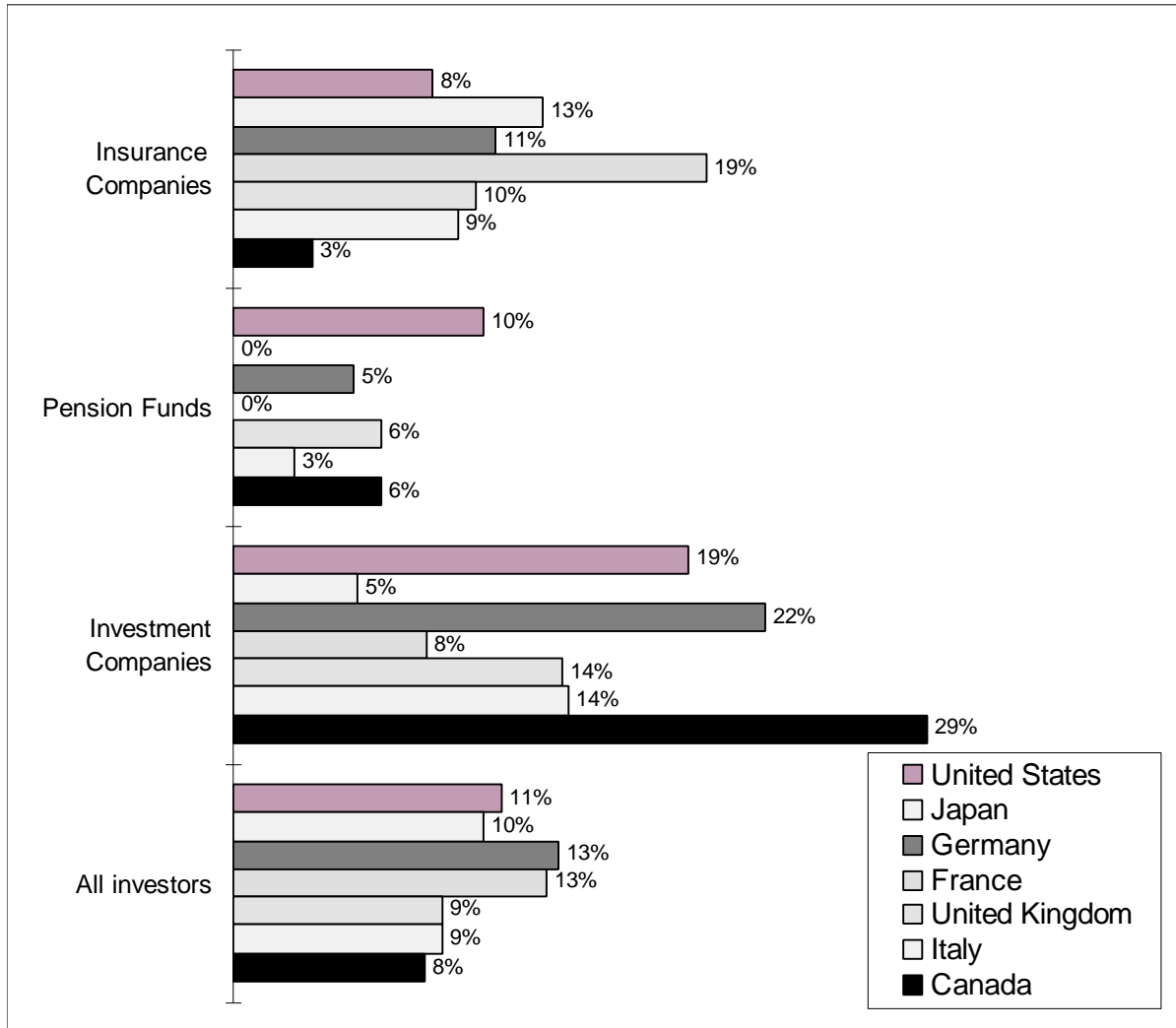
Chart 1
Annual average rate of growth of Institutional investors in OECD regions
1990-1995



Source: OECD/DAFFE

6. Pension funds, insurance companies, and investment companies in the Group of Seven countries had close to \$17.5 trillion in assets under management in 1995. In comparison, the global equity market in 1993 amounted to \$14.1 trillion, and the total outstanding stock of government debt in the Group of Seven countries was \$9 trillion [2]. In the period 1980 - 1993, the aggregate assets of institutional investors in the United States, Japan, Germany, United Kingdom and Canada have increased by more than 400 per cent and have more than doubled as a percent of GDP ; at the end of 1995, aggregate institutional assets in the G-5 countries were around \$20.4 trillion or 119 per cent of GDP. G-7 aggregate institutional assets stood at \$21.3 trillion at the end of 1995 or 113 per cent of GDP, while recording strong growth for all categories of institutional investors [see Chart 2]. Other OECD countries have recorded similar changes in total assets under management.

Chart 2
Annual average rate of growth of Institutional investors in G-7 countries
1990-1995

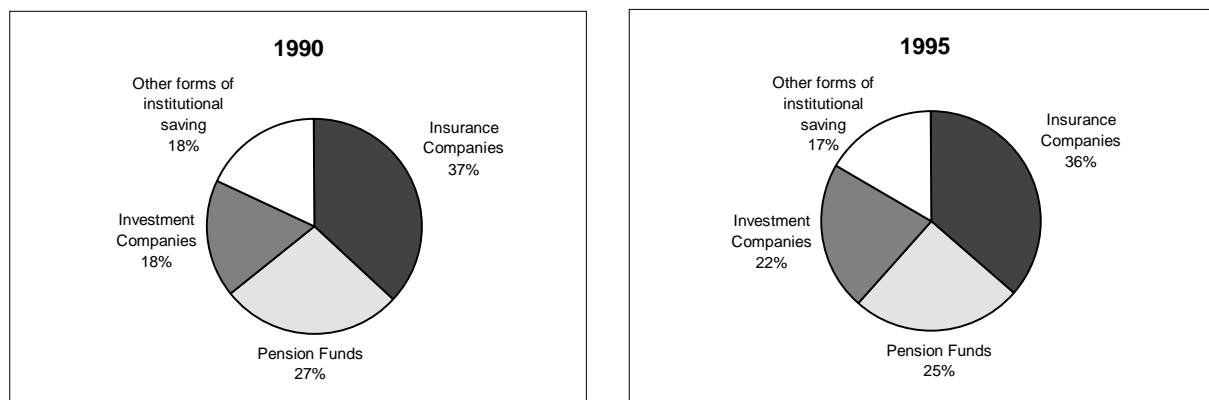


Source: OECD/DAFFE

7. Pension funds and insurance companies have traditionally been the most important institutional investors in OECD capital markets. Although they still control very sizeable (and still growing) asset portfolios, the asset growth of investment companies has been even more spectacular. It is estimated that mutual funds alone accounted for about \$3.3 trillion in 1994 [3]. Investment companies assets have increased at a much faster pace than have the assets of other institutional investors. Assets of investment funds amounted to \$5.2 trillion in 1995, a growth of 19 per cent over the 1990-1995 period; the total share of assets under management of investment funds increased from 18 per cent in 1990 to 22 per cent in 1995

[see Chart 3]. Total assets under management of hedge funds stood at an estimated \$75-100 billion in 1994, a doubling since 1991 [4], and have further grown to an estimated \$236 billion in 1995.

Chart 3
Change in asset holdings by the different types of Institutional investors 1990-1995



Source: OECD/DAFFE

8. Another noteworthy trend is the changes in the share of foreign securities in the portfolios of institutional investors. There is a gradual but clear trend toward internationally diversified portfolios of pension funds. The behaviour of life insurance companies and investment companies is less clear. In fact, their international diversification shows some decrease in the 1990s. The portfolios of insurance companies are less diversified than those of pension funds. There are important differences in the share of foreign securities in the portfolio of OECD investment companies: (a) the portfolios of mutual funds in Canada, Germany and the United Kingdom are more internationally diversified than in the United States and Japan; (b) possibly related to the previous point, US mutual funds show a clear trend toward increased international diversification, while in other countries this trend has levelled off or even declined somewhat; (c) mutual funds in the larger OECD countries are significantly more diversified than insurance companies and pension funds.

Table 1: Institutional Investor's Holdings of securities issued by non-residents
(in percent of total assets)

	1980	1988	1990	1991	1992	1993	1994	1995
Pension funds								
Canada ⁽¹⁾	4.6	5.9	6.4	8.6	10.2	11.6	12.9	13.4
Germany ⁽²⁾	..	3.8	4.5	4.5	4.3	4.5	5.0 ⁽³⁾	..
Japan ⁽²⁾	0.5	6.3	7.2	8.4	8.4	9.0	..	..
United Kingdom	7.9	16.3	17.8	20.6	19.5	20.0	19.8	19.8
USA ⁽²⁾	0.7	2.7	4.2	4.1	4.6	5.7	..	..
Life insurance companies								
Canada ⁽¹⁾	0.3	1.5	1.1	1.2	0.7	0.5	0.5	0.3
Germany ⁽²⁾	0.6	0.6	1.0	1.0	..	..	..	..
Japan ⁽⁴⁾	13.5	12.5	11.4	9.0	6.7	6.9
United Kingdom	4.1	9.4	10.7	12.2	12.4	13.3	13.5	14.2
USA ⁽²⁾	4.1	3.6	3.6	3.6	3.7	..	..	..
Mutual funds								
Canada ⁽¹⁾	19.9	19.4	17.5	16.1	17.0	20.4	23.6	23.4
Germany	..	..	..	..	..	24.8	20.3	20.2
Japan ^{(2) (5)}	..	9.1	7.9	13.0	9.9	..	..	..
United Kingdom	17.9	33.0	31.0	34.3	35.2	35.8	36.4	34.5
USA ⁽²⁾	6.6	..	10.1	..	..	..

(1) Non-resident investment

(2) Source: International Capital Markets, IMF, Washington D.C. 1995

(3) Source: EFRP

(4) Only bills & bonds

(5) Investment trusts

Sources: Statistics Canada, Deutsche Bundesbank, Bank of Japan, Office for National Statistics, and OECD staff estimates.

Increasing institutional and functional overlaps

9. The analysis of these general trends and developments is complicated by the fact that increasingly there are a number of institutional and functional overlaps between the different categories of institutional investors. World-wide deregulation in the financial sector industry and revolutionary technological developments have eroded the statutory and physical barriers between banks, other financial intermediaries and the securities industry. The same forces that are contributing to financial sector integration are also increasingly affecting institutional investors. The process of integrating institutional investor operations into the more "traditional" financial sector activities is being strengthened by the growing influence of the professional fund managers².

10. Firstly, the links between banks and institutional investors have grown stronger over time. Banks have moved on a wide scale into the investment fund business, also in OECD countries with non-universal banking systems. Secondly, deregulation and the liberalisation of the rules governing the operation of financial institutions have encouraged the formation of financial conglomerates in which banks and insurance companies offer the widest possible array of services [5]. This integrated financial activity is often called *bancassurance*. Not all OECD countries allow such integration. For example, in the United States' and Japan's regulations, separating banks from insurance companies is still intact, although bank sales of insurance products have expanded rapidly in recent years in the United States. Thirdly, larger insurance companies that can afford the services of large professional asset management teams are increasingly moving into the investment fund business, either by developing "unit-linked" insurance products or by launching investment fund companies that offer financial products also to clients that are not

necessarily insurance policy holders. Another development is the so-called alternative risk transfer market, where insurance risk is transferred on investment instruments such as catastrophe futures. Fourthly, even insurance companies and pension funds that cannot afford a full-fledged professional asset management team have usually strong links to the financial sector because they are employing outside teams to invest and manage their assets.

3. Role of the Institutional Sector in Emerging Securities Markets

11. Securities markets in emerging market economies are developing at a rapid pace. It is estimated by the International Finance Corporation (IFC) that in 1996 over 60 developing countries have stock markets, compared with half that number in 1985.³ The combined stock market capitalisation of these countries has increased more than ten-fold over the past decade, from US\$ 171 billion in 1985 to US\$ 1.9 trillion in 1995. The 18 major emerging market economies that constituted the IFC Emerging Markets Index (IFCI) had a combined market capitalisation in 1996 of US\$ 1.4 trillion, 14 times higher than it was in 1985, while the average market capitalisation rose from 7 to 40 per cent of GDP.

The role of foreign institutional investors

12. Foreign institutional investors have had a major impact on the development of securities markets⁴, notably stock markets. There has been a dramatic increase of portfolio flows from institutional investors into emerging markets, with professionally managed investment funds taking the lead. However, this is a relatively recent phenomenon. It has only been since the mid- 1980s that closed-end investment funds (including country funds) began to invest in emerging stock markets. In 1986, there were only 19 emerging market country funds and 9 regional or global emerging market funds. By 1995, the picture has changed dramatically with 505 country funds and 773 regional and global emerging market funds, of which around 50 per cent open-ended. The combined assets of all closed- and open-end emerging market funds increased from US\$ 1.0 billion in 1986 to US\$ 132 billion in mid-1996⁵.

13. Pension fund investment in emerging financial markets is an even more recent phenomenon. Total holdings of emerging securities markets assets by OECD institutional investors is relatively low. Surveys suggest that US pension funds and mutual funds currently have about 2 per cent of their assets invested in emerging markets. Emerging market exposure of UK pension funds and mutual funds is somewhat higher (3-4 per cent) but Japanese and continental European institutional investors have negligible emerging market assets in their portfolios. All the evidence points to the fact that all types of institutional investors are much less internationally diversified than the world market portfolio. Several reasons for this home bias have been identified in the literature⁶. Some of them are rational (e.g. additional risk) or policy-determined (e.g. prudential regulations) but -- on balance -- there seems to be considerable scope for increasing the share of emerging securities market assets in the portfolios of OECD institutional investors. In addition it should be noted that the international investment behaviour of pension funds, insurance companies and investment funds differs because of the different structure of their liabilities (this is in large part reflected in the regulatory structure; see ANNEX I for an overview).

14. Foreign institutional investors have played an important catalyst role in the improvement of the institutional infrastructure of emerging market economies. This has undoubtedly contributed to the most recent development in which **domestic** institutional investors are starting to play an increasingly important role. However, their role is as yet fairly modest and, therefore, there is considerable scope for an expansion of both the domestic institutional sector and the domestic securities market. In order to get a better

understanding of the scope for expansion and policies to promote them, a two-pronged approach will be followed. In the remainder of this section the OECD experience will be analysed in order to identify the main factors driving the growth of the domestic institutional sector in the OECD area. This should be helpful to get a first idea about the scope for expansion as well as required policy actions to promote the domestic institutional sector. Against this backdrop, the second step is to examine in the next section the main obstacles to the expansion of the domestic institutional sector.

Forces shaping the role, structure and modus operandi of OECD institutional investors

15. The overview in the previous section shows very clearly that OECD institutional investors as a group have vastly expanded their economic sphere of influence. Yet, institutional investors are by no means a monolithic group, since they have different investment objectives and fiduciary mandates, operate under different regulatory and tax regimes (see ANNEX I), and have a different tolerance to risk. The nature of the liabilities of the different types of institutional investors is a key determinant of their behaviour, including their investment activities (ANNEX I). Nonetheless, it is possible to identify a number of major structural factors driving the growth of institutional investors as a group:

Deregulation of the financial sector

16. Deregulation of the banking and securities industries since the beginning 1980s has heightened competition between and among banks and other financial institutions⁷. Abolishment of cross-border capital flow restrictions has further increased competition. New capital standards for banks were introduced in the same period. In response to these pressures, banks have massively expanded, or moved into, the insurance and investment fund business in search of new activities that generate earnings in the form of commissions and fees, while they do not necessarily absorb additional capital.

Liberalisation of the institutional sector

17. Liberalisation of the activities of institutional investors, both in terms of the production and distribution of their respective products and the investment of their assets. An important aspect of the liberalisation process is the relaxation of regulatory constraints on cross-border activities and investments.

Demography, pension systems reform and financial markets

18. The rising needs for retirement benefits of a rapidly ageing population in conjunction with more sophisticated and wealthier private investors have had a significant impact on the growth of demand by private households for retirement benefit offered by the different types of financial institutions -- banks, insurance companies, and investment products funds.

Advances in communications and information technology

19. Spectacular technological advances in communications and information technology enhanced the capacity of the financial sector, the professional fund managers, and the institutional investor community to use the opportunities offered by the liberalised environment. Advances in technology have enabled funds to be managed at lower costs. More reliable and efficient clearing and settlements systems for securities and

payments, the creation and use of complex new financial products for risk management purposes, and the integration of capital markets have been important factors underpinning the spectacular growth of the managed assets of institutional investors, in particular, mutual fund assets.

The role of the fund management industry

20. The increasingly active role of the fund or money management profession has made important contributions to the transformation and dramatic expansion of the institutional investor industry. The management of funds by these professionals has common, technical features on the operational side, but the exact strategy and specific objectives are adapted to the specific institutional set-up.

21. When discussing the forces shaping the investment behaviour of institutional investors it is conceptually important to make a distinction between the legal and economic definition of the different types of "institutional investors", on the one hand, and the professional fund managers who develop asset allocation strategies and take investment decisions, on the other. The fund management profession is an important driving force behind the increasing sophistication of the investment strategies of institutional investors. Individual and institutional investors have increasingly delegated the management of their portfolios to professional fund managers. The role of the fund management profession is therefore a key factor in analysing the relationship between institutional investors and financial markets⁸.

Financial integration

22. Financial integration is proceeding at a rapid pace fuelled by financial market liberalisation and modernisation, advances in information and communication technology, and the increase in international diversification of portfolios of the OECD institutional sector. In addition, there are important recent policy initiatives such as NAFTA and EMU that have given a major push to financial integration, first at the regional level and subsequently at the global level. There is a dynamic two-way process in which the expansion of the institutional sector is fostering financial integration while at the same time financial integration is having a profound impact on the investment behaviour of the institutional sector.

Scope for the development of a domestic institutional investor base in emerging securities markets

23. The structural factors behind the growth of institutional assets in the OECD area have hardly started to play a role in emerging markets. Hence, the scope for the development of the institutional sector and the domestic capital market is enormous.

Deregulation and modernisation of the financial sector

24. Deregulation and modernisation of the financial sector are relatively recent phenomena in emerging markets. The **Latin American** banking landscape has been shaped to a large measure by frequent banking crises⁹. Latin American financial markets are highly volatile. Institutional investors have reacted to financial fragility and volatility by holding short-term assets. Depository institutions, banks and savings institutions issuing deposit-like liabilities, are the major investment vehicles for Latin American **domestic** institutional savings. Chile is the exception, with pension and insurance funds accounting for around 44 per cent of institutional savings. Moreover, only in Chile are capital-market instruments (including fixed-income securities) a substantial source of funds for the private sector¹⁰.

25. **Central and Eastern Europe and the former USSR** are special cases because of their unique initial conditions (chief among them the complete absence in 1989 of both market-based financial institutions and an institutional investor base). Although the transformation of the financial sector is in full swing, many problems remain¹¹. It can therefore be expected that continued progress in the restructuring and modernisation of the banking sector (as well as a reduction in macro-economic volatility) will significantly contribute to the involvement of banks in institutional sector activities, including money management services. Moreover, the transformation of the banking sector in transition economies and elsewhere is a *sine qua non* for the emergence of capital markets as important intermediaries of liquid long-term funds to the private sector¹². Indeed, Latin American experiences provide evidence that building confidence in institutional savings is closely related to building confidence in the banking system¹³. Thus, the further development of a domestic institutional investor base is in large part dependent on success in establishing sound banking systems.

26. The deregulation and modernisation of the financial sector in emerging **Asian** market economies is in many respects further advanced than in other emerging market areas. Equity and bond markets are relatively well-developed [see Table 2] and have grown strongly in the last decade. For example, in Malaysia and Thailand the share of equity markets in the stock of financial savings increased, respectively, from 49 per cent and 9 per cent at the end of 1985 to 79 per cent and 56 per cent at the end of 1994¹⁴. Asian bond markets have been growing strongly in large measure in response to the huge infrastructure investment requirements¹⁵. The increasing supply of long-term capital market instruments is supporting the development of a domestic institutional investor base in emerging Asian economies. Moreover, increased competition among banks have encouraged them moving into capital market activities (including fund management services) to boost fee income. However, turmoil in Asian financial markets in 1997 has demonstrated a number of structural weaknesses in the financial sector, chief among them bank fragility. The recent cyclical downturn in several Asian countries has exposed structural weaknesses in their banking systems¹⁶.

Table 2. Securities Markets

As a percentage of GDP unless otherwise stated									
	Securities outstanding ¹		Equities				Bonds		
	1990	1994	Capitalisation		Trading concentration ²	Turn-over ³	Capitalisation		Turn-over ³
			1990	1995			1990	1994	
India	35.0	93.4	12.6	56.9	6.2	24.1	18.5	22.4	57.5
East Asia									
Indonesia	13.5	32.6	7.6	33.9	35.4	29.4	1.6	6.0	10.0
Korea	91.4	105.4	44.0	40.2	12.8	171.6	19.7	24.1 ⁴	43.0
Malaysia	196.5	352.6	113.8	265.0	13.6	62.3	59.9	51.2	32.6
Taiwan	83.2	134.7	62.3	74.0	23.4	353.5	5.6	13.6	1 840.0
Thailand	37.8	113.8	27.9	85.4	28.0	60.9	9.8 ⁵	7.0 ⁵	4.0
Latin America									
Argentina	9.4	30.4 ⁶	2.4	13.4	47.7	28.1	7.0	18.3 ⁶	600.0 ⁶
Brazil	11.9	66.6	3.7	26.2	77.6	83.4			
Chile	54.5	155.8	44.9	109.4	57.7	9.5	9.6	18.4	275.4
Colombia	22.8	34.4	3.5	23.9	52.5	17.8	1.6	4.9	
Mexico	44.6	73.9	14.1	36.3	56.4	46.5	8.7	2.9	32.9
Venezuela	22.4	18.2	17.2	4.9	80.7	20.2	5.2	11.1	
United States	203.7	244.5	56.3	94.7	7.4	69.7	108.3	123.4	1 460.0 ⁵
Japan	189.5	178.2	99.5	72.1	13.2	32.4	78.0	88.4	250.0 ⁵
Germany	88.9	132.7	21.6	23.9	61.9	97.8	70.1	85.6	2 120.0 ⁵

¹ Where available, including short-term money market instruments, government bonds, corporate bonds and equities at market value. ² Percentage share of the ten most active stocks in the total value traded in 1994. For the United States and Japan, share of total volume traded. ³ Total value traded as a percentage of average market capitalisation in 1994. ⁴ 1995. ⁵ Government bonds only. ⁶ 1993.

Source: Bank for International Settlements, 66th Annual Report, June 1996, BIS.

Liberalisation of the institutional sector

27. Liberalisation of the activities (production, distribution, investment of assets) of the domestic institutional sector has hardly begun in emerging markets. The agenda for liberalisation will be reviewed in section 4 by identifying major obstacles to the development of a domestic institutional investor base.

Demography and pension reform

28. Demographic developments in conjunction with (the need for) pension reform are perhaps the most important determinants of the (future) growth of the domestic institutional sector in emerging market economies.

29. During the debt crises of the 1980s, *Latin American* social securities systems experienced major problems: underfunding, falling real pensions, increasing evasion and large social security deficits.¹⁷ In 1981 Chile took the lead in implementing a radical pension reform programme which replaced the PAYG system by a fully funded system based on individual capitalisation accounts. Encouraged by Chile's success, the movement to reform pension systems gained momentum in the region [see Table 3].

Table 3: A Summary of Latin American Pension System Reforms

	Chile	Peru	Argentina	Colombia	Uruguay	Mexico
Participation	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
1st Pillar	Public	Public	Public	Public	Public	Public
2nd Pillar	Private Only	Pub/Priv. Option	Pub/Priv. Option	Pub/Priv. Option	Pub/Priv. Option	Private only
Financing						
ER payroll tax	0%	0%	0%	10%/7.5%	na/0%	0%
EE payroll tax	10%	11% or 10%	11% both	3.5% or 2.5%	na/0%-7.5%	6.5%
Gen'l Rev.	Yes	Yes	Yes	Yes	Yes	Yes
Benefits						
Ret. Age (m/f)	65/60	65	65/60	62/57	60	65
1st Pillar: %AvPay	25%	na	28%	55%	na	40%
2nd Pillar: Payout	Lump-ProgWD- Annuity	ProgWD- Annuity	ProgWD- Annuity	ProgWD- Annuity	Annuity	Annuity-ProgWD
Reg. Structure						
Commission Reg.	Yes	No	No	na	No	No
Int'l Invest. OK	Yes	Yes	Yes	na	No	Yes
Minimum ROR	Yes	Yes	Yes	na	Yes	No
Transition						
% of GDP	100-80%	27%	na	87%	na	80%
Recog. bond	Yes	Yes	No	Yes	No	No
System Perf.						
Fund (US\$)[*]	\$28B	\$900M	\$4.5B	\$50M	\$25.6M	\$3.9B
Fund (%GDP) [*]	41% ('94)	1.5% ('96)	0.7% ('95)	na	na	na
Recent ROR	12.5% ('82-95)	15.5% ('94-95)	19.9% ('95-96)	15.5% ('96)	na	na
No. AFPs[*]	15	6	21	9	6	25
No. Affil's[*]	5.5M	1.5M	5.5M	2.1M	0.5M	11.2M

Source: All data from Mitchell and Barreto (1997) except items with [*] from Superintencia Admn. Privado de Fondos de Pensiones del Peru (1996).

30. Among other emerging markets, large funded pension systems exist in relatively few countries. In Asia the pension systems of Singapore and Malaysia are centrally managed by national provident funds. Indonesia and India have funded schemes that are mostly based on company plans. Korea and the Philippines have partially funded public pension systems. Except for Singapore and Malaysia, pension assets in terms of GDP are relatively low in Asia. For example, in Korea they stood at around 3.1 per cent in 1995.¹⁸

31. In the transition economies of Central and Eastern Europe and the former USSR, funded pension systems hardly exist. Only three countries in Eastern Europe have adopted legislation for regulating the activities of private pension funds.¹⁹ Other countries have prepared drafts of new laws or simply have laws allowing the existence of private pension funds but *not* their regulation.²⁰

Table 4. Pension funds development, end 1996

<i>Country</i>	<i>Number of funds</i>	<i>Members (‘000)</i>	<i>Assets % of GDP</i>
Hungary	211	300	0.40
Czech Republic	44	1 200	0.14
Russia	1 000	n.a.	0.05
Slovak Republic	0	0	0.00

Source: G. Impavido, Pension Funds and Stock Market Development in Eastern Europe: Is there A Link? EIB Report 97/03, Luxembourg.

32. The size of the pension sector in most emerging market economies is very small [see Tables 3 and 4]. This reflects differences in some regions (Asia, Latin America) between the demographic structure of these regions and the OECD area. However, transition economies have a demographic structure very similar to the OECD countries.²¹ In sum, the relative small size of the pension sector in emerging markets provides a first indication of its scope for expansion through pension reform and the removal of obstacles in other areas (notably the financial sector)²². Advances in information and communication technology and the role of professional fund managers are key ingredients of a modern capital market infrastructure for supporting a dynamic domestic institutional sector. These factors will be discussed in Section 5.

Financial Integration

33. The pace of financial integration is still gathering speed. Net private capital flows to emerging markets exceeded \$265 billion in 1996, nearly six times greater than they were at the beginning of the decade. Private flows are now five times the size of official flows.²³ The driving force behind the portfolio flows of the 1990s has been OECD institutional investors. Among institutional investors, mutual funds led the rapid growth in investments in emerging market equities.²⁴ However, increasingly it is the expansion of the OECD pension sector that is the main financial muscle behind the continued flow of capital into emerging markets, investing through mutual funds or directly on their own account. Total international investments by pension funds (mostly in the form of portfolio equities) more than doubled from \$302 billion in 1989 to \$790 billion in 1994.²⁵

34. Integration enhances the depth and efficiency of the domestic financial system, in particular the capital market. This in turn improves the conditions for an expansion of the domestic institutional sector. The pace of change will be especially rapid for emerging economies, given their more insulated financial markets. Structural reforms in emerging markets (privatisation, pension reform, modernisation of the banking sector, etc.), technological change and financial innovations, financial deregulation and major demographic shifts in OECD countries, are major reasons for expecting that rapid financial integration will continue.²⁶

The size of the institutional sector and the development of the capital market

35. The expansion of the institutional sector has an important impact on the development of the domestic capital market²⁷ The OECD experience demonstrates how the growth of the institutional sector has contributed to the modernisation of, and a stronger role for, capital markets. An expansion of the domestic institutional sector in emerging market economies will therefore give a similar impetus to the development of the domestic securities market. Important dimensions of this development are the following:

Market Liquidity

36. The growth of the institutional sector has had a profound effect on capital market structure and corporate finance behaviour in the OECD area²⁸. Institutional investors are very much interested in market liquidity -- i.e. the ability to transact in large size without moving the price against them and at low transaction costs. They demand therefore a market infrastructure characterised by specialised wholesale markets which can process large transactions very rapidly and contribute to liquidity²⁹. Market liquidity is a key requirement of the larger institutional investors. Institutional trading and investment strategies demand the existence of sophisticated and liquid financial markets. Consequently, the quest for liquidity has changed dramatically the micro-structure of financial markets. Four dimensions of liquidity can be distinguished:

- *width*, determined by the bid-ask spread for a given number of securities;
- *depth*, the amount of securities that can be traded at given bid and ask quotes;
- *immediacy*, the amount of time to carry out a transaction;
- *resiliency*, the time it takes before prices revert to former levels after a large order has been absorbed by the market.

37. Through sophisticated trading and investment strategies, institutional investors can create additional liquidity in the form of arbitrage activities and diversification of investor portfolios. Liquidity might also be aided by reduction in commissions and other transactions costs, that institutional investors are well placed to press for. Increases in market liquidity should in turn be beneficial more generally to the efficiency of financial markets, and lead to a reduction in the cost of capital.

38. Liquidity is a form of economy of scale and therefore the larger financial centres have a competitive edge, even with similar technology. Relative liquidity is reflected in transaction sizes [11]. In some countries, the growth of institutional investors -- in particular pension funds -- has encouraged the development of off-exchange "block trading". This in turn may entail a tiering of markets, with order-driven and heavily regulated domestic markets dedicated to retail investors and small company stocks. Institutional investors have more power than small investors to press for the lowest possible transaction costs, thereby boosting liquidity [12]. Total transaction costs consist of indirect trading costs (determined by the liquidity of the market: the higher market liquidity, the lower indirect trading costs) and direct trading costs (determined by the structure of transaction fees). Institutional investors will seek to minimise total trading costs [13].

Financial system structure

39. Institutional investors have also had an impact on the overall structure of financial markets. Countries with large funded pension schemes (e.g. United Kingdom, United States) tend to have highly developed securities markets, while capital markets are relatively underdeveloped (in particular the equity market) in countries with small pension-fund sectors (e.g. Germany, Italy). Given their focus on real returns, pension funds should be particularly beneficial to the development of equity markets [14]. Although pension funds could in principle also develop by providing loans and investments in real estate, their greatest comparative advantage is in the capital markets. Loans require monitoring, so the customer relationship probably gives banks a competitive edge. In contrast, trading and the pooling of risks are more efficiently undertaken in capital markets, where transactions costs are lower.

40. The growth of a dynamic institutional sector may contribute to a stronger role of capital market intermediation in so-called bank-based financial systems (e.g. Germany, Japan, the Netherlands). In particular, pension funds that are investing significant parts of their portfolios in equities would pressure for changes in laws and regulations of companies that usually can be found in "bank dominated" financial systems. In addition to a modernisation of the capital market infrastructure, pension funds can be expected to push for a move to laws and practices that would better protect the interests of equity holders. These include take-over codes, insider information restrictions, limits on dual classes of shares which seek to protect minority shareholders, as well as equal treatment of creditors in bankruptcy to protect their holdings of corporate bonds.

41. The resulting modernisation of the capital market might further encourage the larger corporations to shift from bank financing to securities markets. However, similar access to capital markets is not available for the smaller enterprises. This in turn may re-enforce the development that bank lending is being increasingly concentrated in the smaller and medium-size enterprise sector, even in so-called bank dominated OECD countries.

Demand for capital market instruments and innovations

42. Institutional investors can influence the demand for capital market instruments in several ways: (i) by increasing the total supply of saving, (ii) by influencing the personal sector's portfolio distribution between bank deposits and securities, and (iii) via the institutional sector's own portfolio choices.

43. Most studies indicate that institutionalisation has a small impact on total personal saving [15], although some studies suggest a larger effect [16]. Most authors have come to the conclusion that the growth of institutional investors increases the total supply of long term funds, and may reduce bank deposits, but that total savings do not increase or only marginally.

44. The personal sector tends to hold a much larger proportion of liquid assets than the institutional sector. Institutional investors hold a greater proportion of their assets in the form of long-term assets than households; also, the personal sector's foreign asset holdings are relatively minor. These differences can partly be explained by the following factors [17]:

a) Households have relatively short time horizons. Most institutional investors (in particular, pension funds and life insurance companies) have long-term liabilities. They tend therefore to concentrate portfolios on long-term assets such as equity and property yielding higher returns.

b) Institutional investors have a comparative advantage in compensating for the increased risk of holding domestic and foreign equities, by pooling across assets that are imperfectly correlated.

45. The institutionalisation of savings implies therefore a shift in composition of the portfolios of the household sector. The demand for capital market instruments by the institutional sector is the outcome of portfolio optimisation -- seeking an optimal risk/return profile -- taking into account the nature of its liabilities, tax factors and regulatory regimes. It has been suggested that in recent years the biggest impulse to the supply of long-term funds has come from pension funds (part of the growth of mutual funds is due to investments by pension funds and/or the growth of personal pension plans).

46. These shifts in portfolios imply that securities are increasingly held by large, informed investors. This in turn means that their behaviour should be strongly influenced by relative asset returns, particularly

when there are relatively few regulations governing portfolio investments and transaction costs are low. Adjustments to changes in relative returns are relatively rapid. This implies that capital markets are allocating funds more efficiently and are valuing securities more accurately and rapidly. Studies confirm that adjustments to a change in returns are rapid in countries with few regulations on portfolio allocation and somewhat slower in countries with higher transaction costs, more restrictions and poorer information disclosure [18]. Also, adjustments by households and non-financial companies tend to be slower due to higher transaction costs and poorer information [19].

47. Analysts have also argued that the increased supply of long-term capital market instruments, attributed mainly to the growth of pension funds and increased comfort with securities investing by individuals, may be leading to a compression of the yield differential between equities and bonds. It has been suggested that this may have a structural impact on the capital market by making the issuance of equities cheaper relative to bonds [20].

48. The process of financial innovation has been driven strongly by the growth of the institutional sector. Sophisticated trading arrangements and investment techniques have been developed in response to the needs of institutional investors. The growing importance of institutional investors is generating also an increasing demand for risk-transfer techniques, which enable the investor to choose the desired combinations of return and risk. Such techniques include both securitisation, which enables the investor to transfer the credit risk as well as the market risk, and derivatives, whereby market or price risk is reallocated among participants. A more recent development is credit derivatives, which enable market participants to transfer credit risk separately [21].

49. The demand for risk-transfer techniques has been strongly driven by the nature of the liabilities of the different types of institutional investors and regulatory requirements. For example, defined-benefit schemes and strict minimum-funding requirements have stimulated demand for hedging by pension funds. In order to minimise the costs of hedging, pension funds and life-insurance companies have an incentive to immunise their defined-benefit liabilities via an investment strategy of duration matching.

50. The requirement of a fixed duration for investment instruments has stimulated innovations such as zero coupon bonds, collateralised mortgage obligations, strips in government securities markets and guaranteed income contracts; immunisation strategies have also stimulated the development of markets for index options and futures. Fixed-duration instruments have also spurred the process of securitisation of mortgages in the case of collateralised mortgage obligations and of loans and private placements in the case of GICs (Guaranteed Income Contracts).

4. Obstacles in developing an institutional sector in emerging market economies

51. It was argued in the previous section that there is considerable scope for promoting the growth of the domestic institutional sector. However, there are a number of major obstacles that are obstructing or delaying the development of a domestic institutional investor base in emerging markets.

52. Central to the development of an institutional sector is the *legal base* for institutional investor activities, including beneficial ownership, novation and trusts. The second key requirement is the adoption of *investment management legislation* that fosters confidence. This legislation should cover information about investment objectives and risk profiles, definition of prudential and fiduciary standards, regulation of self-dealing, fair valuation procedures, protection of the integrity of the fund's assets.³⁰

53. Unfortunately, these two key building blocks of a domestic institutional sector are missing or only partially in place in most emerging markets. Against this backdrop, we shall briefly review a number of specific obstacles for each category of institutional investor.

Mutual funds

54. Increased competition between and among banks and other financial institutions in the OECD area has encouraged banks to move en masse into the mutual fund industry. In contrast, the structure of the banking industry in most emerging markets has hampered the growth of mutual funds. Lack of competition has led to situations where banks redirected fund investors into deposits. Custodial arrangements tend to be costly, with only a few institutions, mainly banks, being allowed to act as custodians. A major barrier to the development of mutual funds is the design and prudential regulation of private pension funds.³¹ In many OECD countries, mutual funds play an increasingly important role in managing pension fund assets. However, in many emerging markets mutual funds are excluded from the pension fund business.

Life insurance companies

55. Emerging markets play a very small role in the life insurance business. In 1993, the world market share³² of developing countries in the life insurance business stood at nearly 7 per cent, of which around 5 per cent Asian countries and Latin America less than 1 per cent. The growth of the insurance industry has been highest in East Asian countries, while the Latin American insurance sector has been expanding at a very low pace [see Table 5].

Table 5. Insurance Premium Development in Selected Regions, 1971-1990

(Average annual real growth^a in per cent)

	1971-1980	1981-1990	1971-1990
East Asia	13.9	19.3	16.6
Latin America	9.3	3.9	6.6
OECD	3.7	6.1	4.7

a) 1985 prices and exchange rates.

Source: Schweizerische Rückversicherungs-Gesellschaft (1992).

56. Among emerging markets, South Korea and South Africa have the highest ratio of life insurance premium income to gross domestic product. The most rapid growth took place in Chile, South Korea and Taiwan, followed by Singapore, Thailand and Malaysia. Significant determinants of the expansion of the insurance industry are real income growth and level of development.³³ Table 6 provides *prima facie* evidence of the proposition that the level of development (and therefore, personal disposable income) is a major determinant of life insurance development. However, there are also policy-induced obstacles such as weak competition and limited product innovation. The growth of the life-insurance sector has also been hampered by an inadequate sectoral infrastructure, including inadequate financial disclosure on the performance and solvency of insurance companies. Very strict portfolio investment rules have resulted in a “debt bias” with most assets in the form of domestic government securities.

Table 6. Life Insurance Diffusion^a in Selected Emerging Economies; 1987 and 1994

Country	1987	1994
South Africa	8.26	10.32
South Korea	7.31	9.10
Taiwan	2.34	3.64
Malaysia	1.49	2.30
Singapore	1.29	2.73
Chile	1.13	1.95
Philippines	1.06	0.63
India	0.81	1.29
Thailand	0.73	1.36
Morocco	0.36	0.56
Mexico	0.33	0.56
Indonesia	0.21	0.43
Argentina	0.14	0.33
Brazil	0.13	0.27
Colombia	0.28	0.24
Venezuela	0.22	0.04
Japan	6.43	10.10
United Kingdom	5.25	7.31
Switzerland	4.45	5.99
United States	3.69	3.63
Germany	2.83	2.80

Source: Sigma (various) and B. Fischer (1997).

a) Share of life insurance premium income to gross domestic product.

Pension funds

57. Pension funds are underdeveloped in emerging markets.³⁴ Important obstacles are the design and prudential regulation of private pension funds. In many countries, existing financial intermediaries are excluded from the management of retirement assets. Instead, pension funds must be new and specially licensed to manage mandated retirement funds and guarantee a certain return. In *Latin America*, minimum profitability guarantees are defined in relative terms. The *return guarantee* and regulation of fee structures tend to promote herding behaviour of pension funds (resulting in very similar portfolios), to limit competition among pension asset managers, and to lead to very high operational costs (marketing and fees). The introduction of greater competition is needed. First, by allowing other financial intermediaries (including mutual funds) to compete for the management of retirement savings. Second, by offering greater freedom to savers to choose among different portfolios of approved products. Third, by relaxing portfolio investment restrictions, including the freedom to invest in foreign securities. Minimum profitability guarantees and minimum capital rules (they can be used to restrict market access, thereby limiting competition in the pension fund management business³⁵) may also need to be reviewed. Pension regulators in Latin America are already taking action in the areas of cost control and fee deregulation (see footnote 35).

58. Regulation of pension funds in transition countries varies greatly from country to country (Table 7).

Table 7. Pension funds legislation

Country	Min. capital requirement	Foreign participation	Taxation ¹	Portability	Investment limits (in percent of total assets)			
					State bonds and cash (min.)	Other state securities (max.)	Listed shares (max.)	Real estate (max.)
Czech Republic	CZK 20m	Unlimited	TTT ²	Full no fee	free	free	free	free
Hungary	HUF 20m ³	Unlimited	EEE	Full with fee	10	30	60	30
Lithuania	TBA	TBA	EET	Full no fee	TBA	TBA	TBA	TBA
Poland	TBA	TBA	EET	Full no fee	10	30	30	10
Russia	n.a.	n.a.	TTT	Full no fee	TBA	TBA	TBA	TBA
Slovak Republic	SKK 30m	n.a.	EET	Full no fee	free	free	na	20

1. "T": taxed; "E": exempt. First position refers to contributions, second to investment income and third to benefits.

2. State subsidy for contributions instead of exemption. 3. The minimum capital requirement of HUF 20 million is required for funds established as legal entities separate from the sponsor.

Source: EBRD 1996, Pension funds regulation.

59. In many transition economies, pension funds have to invest a minimum part of their assets in government securities. However, asset allocation rules differ significantly across countries. For example, Hungary and Poland have (different) quantitative limits on investments in equity, while the Czech Republic employs a "prudent man rule". Also tax regimes vary a great deal. For example, in Hungary strong incentives exist to stimulate the growth of funded systems, while in the Czech Republic pension contributions, pension investment income and pension benefits are taxed (see Table 7).

60. Transition countries, like other emerging markets, have obstacles to the development of funded pension schemes in the form of institutional weaknesses such as the shortage of a domestic asset management industry and other inadequacies in the financial market infrastructure,³⁶ lack of experienced regulators, and insufficient competition among financial intermediaries that can offer investment management services. In addition, there is only a very narrow range of long-term and liquid savings vehicles, while asset prices (equity, real estate) are very volatile. A final institutional obstacle in developing a funded pension systems in most emerging markets is the excessive size of the pay-as-you-go public pension system. Downsizing of the public pension system and rationalisation of benefits are not only needed on fiscal policy grounds but also to leave greater freedom for the creation and growth (and thus competition) of private pension funds.

61. Although emerging market economies face similar challenges in developing a funded pension sector, there are also key differences. Demographic and pension system dependency ratio differ significantly.³⁷

Table 8. Average comparisons¹

Expenditures on:

<i>Developing Countries</i>	<i>Per Capita GDP (\$ppp)</i>	<i>Male retirement age</i>	<i>Demographic dependency ratio (per cent)</i>	<i>System dependency ratio (per cent)</i>	<i>Social security (per cent of GDP)</i>	<i>Education (per cent of GDP)</i>	<i>Health (per cent of GDP)</i>	<i>Pensions (per cent of GDP)</i>
South Asia	1 260	55.2	15.1	11.2	7.0	3.4	1.4	1.8
East Asia	3 210	55.7	15.5	11.6	3.4	2.8	2.2	2.3
Eastern Europe, Baltics and CIS	5 210	60.0	30.0	48.3	12.3	4.8	5.2	8.4
Latin America	5 360	60.8	14.9	21.0	3.4	4.2	2.4	2.0
OECD Countries	19 000	64.4	32.9	39.2	16.3	4.9	5.9	9.2

1. Weighted averages except for the system dependency ratio of Asia; Latin America and OECD.

Source: EBRD 1996, Fox 1993, Sachs 1996, The world Bank 1994, IMF, OECD, Local Authorities.

62. In fact, the demographic structure of transition countries is very similar to OECD countries. Average pension expenditure (as a per cent of GDP) in transition economies is very close to the OECD average. Projections of demographic and system dependency ratios for a number of transition countries indicate that already large implicit government debt liabilities (given existing entitlement and contribution rates) will continue to grow.³⁸ Fiscal positions and/or tax systems are generally weaker than in OECD countries. This makes pension reform in transition countries even more urgent than in the OECD area.

5. Financial Market Infrastructure and Institutional Sector

63. A well-functioning institutional sector requires a stable and efficient financial market infrastructure. The financial infrastructure consists of: the legal framework; the financial accounting system; the regulatory and supervisory framework; clearing and settlement systems; and the micro-structure for trading securities.

64. The role of *public policy* in supporting the infrastructure of the financial system is fundamental. It includes establishing and enforcing property rights and other laws affecting contracts as well as regulating financial markets and intermediaries. An important challenge for financial policy-makers is how to respond to financial product and financial infrastructure innovations. Government regulatory actions can do much to either mitigate or aggravate the dysfunctional aspects of financial innovations. For example, the government can promote adequate disclosure standards for OTC derivatives by demanding changes in the financial accounting system. Another important example is the role of regulators or supervisors in setting standards for risk management by institutional investors.

65. These public policy responses to financial innovations are likely to enhance financial stability without hampering the entrepreneurial activities of financial market participants. Likewise, the focus in this section is on the role of public policy in the development of an adequate infrastructure for the promotion of a dynamic institutional sector. The (expected) growth of the institutional sector is having a growing influence on the structure and *modus operandi* of financial markets and institutions. The design of the proper financial infrastructure to accommodate these structural changes and prospects is, therefore, a key policy issue³⁹ In discussing the role of public policy in developing and promoting this infrastructure, we shall take a closer look at the regulation and supervision of the institutional sector (including the broader legal framework and accounting system) and the financial market micro-structure (including clearing and settlement systems and the organisation and mechanics of trading).

Regulation and supervision

66. Institutional investors are increasingly dominating the evolution of capital markets and corporate finance. At the same time, a dynamic institutional sector needs well-developed securities markets for the efficient execution of their investment strategies. Three functions of the regulatory framework are critical for well-functioning capital markets.

67. The *first function* is to ensure an *accurate disclosure* of all material information. Transparency in the market by mandatory public disclosure is an important requirement for institutional investors. Hence, institutional investors shun capital markets with weak disclosure. Differences in disclosure requirements among countries are significant, partly due to different legal systems. In emerging markets, the ability of regulators to monitor and enforce disclosure may be weaker than in more mature markets. For this reason, it seems sensible to be quite specific on disclosure and reporting requirements.

68. The international community has been working on the harmonisation of disclosure requirements. Both IOSCO and COSRA have published standards for full and fair disclosure. *Accounting standards* are key because disclosure will be effective only if the financial information provided by the company is based on solid accounting principles and practices. Common accounting standards are essential for institutional investors to be able to assess accurately the “value” of investments. In parallel, *auditing* standards and practices also need to be high enough to ensure the reliability of disclosed information.

69. The *second* critical function of the regulatory framework necessary to develop confidence among institutional investors is to adopt *insider trading* legislation. Emerging markets should not try to eliminate insider trading by relying solely on criminal prosecution. It is more effective to have the full range of sanctions (civil, administrative and criminal).⁴⁰

70. A *third* function of the regulatory system is to ensure fair treatment of all shareholders, including minority shareholders, and the establishment of effective corporate governance mechanisms for shareholder approval of key corporate decisions. Different legal systems or traditions influence the extent to which investors are protected. Legal protections for shareholders and creditors are strongest in the English common law countries and weakest in legal systems based on France’s Napoleonic Code. (France, Italy, Spain and most of Latin America). In between are countries with laws based on the German model (Germany, Japan, Korea and a handful of others) and the Scandinavian countries, which have their own legal tradition.⁴¹

71. Laws and regulations are one main component of an effective regulatory framework. The other component is *enforcement* by both official regulators and self-regulation. There are several obstacles in implementing OECD-style market-based regulatory models, based on disclosure and self-regulation, in emerging markets. Self-regulation and disclosure may, therefore, be problematic. The alternative is to rely more on excessive or draconian regulations by government agencies. However, this may hamper the development of both the capital market and the institutional sector. These considerations indicate that it is not easy for the authorities to strike the right balance. One regulatory “philosophy” is to impose a draconian regulatory regime in countries with a low degree of capital market development and to allow a gradual relaxation of “draconian” rules as the financial and institutional sectors develop. For example, draconian regulations have been justified in emerging markets with underdeveloped capital markets and where private pensions play a major role in the provision of retirement income.⁴²

72. Most emerging markets have made considerable progress in the development of a solid regulatory and supervisory framework, although progress has been uneven.⁴³ Nonetheless, important weaknesses

remain. Many emerging markets have not established the legal and regulatory basis for dealing with compensation funds, take-overs, and insider trading. In addition, many emerging markets have not yet established the legal and regulatory basis for dealing with institutional investors. The *general* picture among emerging markets in the three regions is as follows:⁴⁴ in *Asian* countries there is the common problem of excessive regulations that inhibit capital market developments; in *Latin America* under-regulation or the lack of effective enforcement constitutes obstacles for the creation of confidence in financial systems; *Eastern Europe and the Former Soviet Union* need to make further progress in establishing the basic legal and regulatory framework for capital market development.

Financial market micro-structure

73. The financial market micro-structure has changed significantly in the OECD area as a result of the dramatic expansion of the OECD institutional sector and its impact on: i) capital market liquidity, ii) demand for capital market instruments and financial innovations, as well as iii) the growing influence of the asset management industry on investment strategies and techniques and trading arrangements. Similar structural changes in the financial market infrastructure will (or need to) take place in emerging markets when the domestic institutional investor base continues to expand. In fact, there is a two-way dynamic process whereby a dynamic institutional sector encourages the development of a modern capital market infrastructure, while at the same time the expansion of a market-oriented institutional investor base requires the existence of a sophisticated financial infrastructure.

The growing influence of asset management

74. Professional fund or asset managers are an integral part of the financial market infrastructure. They have a growing influence on the structure and modus operandi of financial market institutions. The technical and operational demands, in conjunction with growing size, of the asset management industry has had, and is having, a major influence on how institutional investors are operating.

75. In its most simple form, fund or asset management can be seen as a service involving management of the investment portfolio on behalf of institutional investors. Asset management can be carried out internally or externally. Delegation to an external fund management service - e.g. a bank, insurance company, mutual fund or other independent money management company - raises principal-agent problems.⁴⁵ The asset management profession is an important driving force behind the growing sophistication of investment strategies of institutional investors as well as innovations in securities trading arrangements and investment techniques.

The impact of the institutional sector on trading arrangements and investment techniques

76. First, sophisticated trading techniques, such as portfolio insurance, place heavy demands on the liquidity in the securities markets. Institutional investors have encouraged innovations in financial products and investment techniques to provide deposit-like characteristics to their liabilities. Institutional investors are able to offer bank - like deposits by following sometimes complicated strategies of holding and trading appropriate combination of assets, even when their asset composition is not itself substantially liquid. To the extent that such strategies can be carried out with transactions that are as low as bank operating costs, institutional investors apparently can provide perfect substitutes for bank deposits.

77. If these techniques to bestow deposit-like characteristics to illiquid securities, which include derivatives, could create liquidity in securities markets without generating additional demands for bank credit lines, bank business would decline sharply. However, access to liquidity through the banking system is vital to the delivery of cash associated with the execution of the above mentioned sophisticated trading techniques. This is an important reason why a sound banking system is a *sine qua non* for the functioning of liquid capital markets with a dynamic institutional sector [28].

78. Second, with the increase in trading by institutional investors, trading arrangements more suitable to these investors had to be developed. This has resulted in the evolution of special arrangements for the execution of certain types of orders commonly sought by institutional investors: (i) orders requiring the execution of a trade of a large number of shares of a given stock (block trades), and (ii) orders requiring the execution of a large number of different stocks at as near the same time as possible (programme trades).

79. The operational arrangement that has evolved to accommodate these two types of institutional trades is the development of a network of trading desks of the major securities firms and institutional investors that communicate with each other by means of electronic display systems and telephones. This network is called the "upstairs market." This market plays an essential role in the well-functioning of capital markets by (a) providing liquidity to the market so that such institutional trades can be executed smoothly, and (b) by arbitraging activities that help to integrate fragmented stock markets, thereby further boosting liquidity.

80. Institutional investors' needs are also a driving force behind a switch from market maker systems with screen-based displays of quotes with all trading conducted over the telephone, to electronic order book systems which can automatically execute orders entered by or via exchange members. For example, the London Stock Exchange is planning to introduce an order book trading system for FT-SE 100 stocks, partly in response to institutional investors' demands.

81. Changes in the micro-structure of financial markets to improve the one or more dimensions of market liquidity have lowered indirect trading costs. The search for more efficient ways of trading is also fostering the growth of alternative or non-traditional trading systems -- in particular proprietary trading systems (PTSs). This has resulted in the bypassing of brokers by institutional investors from securities transactions (disintermediation) and pressure on transaction fees, thereby lowering direct transaction costs

82. Third, in practice, active asset management often lowers returns when transaction costs are taken into account. This is consistent with the so-called efficient markets hypothesis, that states that current securities prices incorporate all available information. Consequently, no net benefit can be expected from spending extra resources on active investment strategies in order to try to beat the "market index". Thus, portfolio indexing can be the optimal investment strategy in situations where securities markets are price-efficient. The amount of institutional funds managed using an indexing strategy has grown substantially. In particular the use of benchmarks tailored to individual pension funds' liabilities has increased. For example, the use of individual benchmarks for UK pension funds has grown from less than 5 per cent in 1990 to more than 30 per cent of the total in 1996. Typically, the benchmarks consist of guidelines for the proportions of a pension fund the manager can invest in particular asset classes. Yet, despite the growing body of evidence that fund managers are unable to outperform systematically the stock market, indexed funds still account for a relatively small part of total institutional stock investments.

Assessment of progress in emerging markets

83. A modern financial market micro-structure is an essential part of the development of a domestic institutional sector in emerging markets. As indicated earlier, there is a two-way dynamic process. This means that the implementation of policies that promote a domestic institutional investor base - e.g. via pension reform or via the elimination of other obstacles⁴⁶ - will stimulate the development of the capital market. Nonetheless, financial policies that promote the development of a modern financial market micro-structure, are a key part of building a market-oriented domestic institutional investor base. Although progress has been made,⁴⁷ the policy agenda remains full.⁴⁸

Table 9. Capital Market Development in Emerging Markets, 1995

<i>Country</i>	<i>Subindex</i>			<i>Overall index</i>
	<i>Market structure^a</i>	<i>Market infrastructure^b</i>	<i>Institutional development^c</i>	
Argentina	4.0	8.7	8.2	6.2
Brazil	5.6	9.1	7.5	6.9
Chile	8.4	10.0	6.6	8.3
China	4.1	7.6	3.9	5.0
India	6.1	3.8	5.2	5.3
Indonesia	5.9	8.1	7.5	6.9
Korea	6.7	8.7	7.7	7.5
Malaysia	8.7	8.6	9.0	8.7
Mexico	6.4	8.4	8.8	7.5
Pakistan	4.3	1.0	7.8	4.1
Philippines	8.5	6.3	6.2	7.4
Poland	4.7	7.5	7.3	6.1
Sri Lanka	2.9	7.0	8.2	5.3
Thailand	8.6	8.7	7.1	8.3
Turkey	4.8	9.3	8.0	6.7

Note: The index ranges from 1 to 10 with higher numbers representing a higher level of market development. See World Bank 1997, *Private Capital Flows to Developing Countries*, Oxford University Press.

a) Based on a weighted average of market characteristics, including market capitalisation, volatility, market concentration, and level of activity, relative to an industrial country benchmark.

b) Based on measures of efficiency in settlement and postsettlement actions.

c) Based on measures of the quality of financial reporting, protection of investor rights, and market openness.

Source: IFC, *Emerging Market Factbook 1996*; Global Securities Consulting Service, *Review of Emerging Markets and Review of Major Markets*.

6. Policy conclusions

84. A dynamic community of institutional investors is a pre-condition for the development of liquid securities market with sophisticated financial vehicles. There is a dynamic two-way process whereby the growth of a domestic institutional investor base encourages the development of a modern capital market, while the expansion of the institutional sector requires the existence of a sophisticated financial market infrastructure.

85. The paper discusses the main factors driving the growth of the institutional sector in the OECD area: financial deregulation, liberalisation of the activities of institutional investors, ageing populations and pension reform, technological advances, expansion of the asset management industry. It is concluded that in view of the OECD experience, the potential for the expansion of a domestic institutional investor base is enormous.

86. Policymakers in emerging market economies need to follow a *two-pronged approach*: (i) the elimination of policy-induced or structural obstacles to the development of a domestic institutional investor base; (ii) preparing capital markets for a strong institutional investor community.

87. The paper identified major *obstacles* in developing a domestic institution sector, including an inadequate legal base and improper (or the absence of) legislation for asset or money management. More specific obstacles for each category of institutional investor have also been discussed:

- *mutual funds* (lack of competition; exclusion of mutual funds from the management of pension fund assets);
- *insurance companies* (overregulation; limited product innovation; inadequate disclosure of financial information on the solvency and financial performance of insurance companies; failure to establish an effective system of consumer and investor protection; excessive portfolio investment restrictions);
- *pension funds* (excessive size of public PAYG system; lack of legal framework for private pension funds; absence of professional asset management industry; excessive portfolio investment restrictions; too restrictive licensing policy, leading to cartelisation of the pension fund business; lack of freedom to savers to choose among different portfolios of approved retirement products; high and/or fixed fees of private pension funds).

88. The combination of the “natural” growth potential of the institutional sector (e.g., through a rise in living standards, the import of modern financial technology, etc.) and the removal of policy-induced obstacles would allow a major expansion of the activities of domestic institutional investors in emerging markets. Modernising the financial market infrastructure would give an additional push to this development.

89. Urgent action is needed in the following areas:

1. the *regulatory framework* (stricter financial disclosure standards and improved accounting rules; more effective enforcement of these standards and rules; implementation of insider trading rules and investor protection provisions; the “right balance between statutory regulations and self-regulatory arrangements, taking into account the capabilities of SROs and potential conflicts of interest);
2. *the legal system and property rights* (fair treatment of all shareholders; better accountability of management to shareholders; independent securities registries of ownership records in order to avoid manipulations or outright fraud by management and/or other insiders);
3. *the financial market infrastructure* (development of asset management industry; introduction of modern trading arrangements and sophisticated investment techniques; reliable and efficient clearance and settlement systems, including a well-functioning central depository; efficient and strong large-value interbank payment systems, including a robust and reliable operational infrastructure; a sound banking system).

ANNEX I: REGULATION AND SUPERVISION OF OECD INSTITUTIONAL INVESTORS [1]- [4]

Insurance Companies

90. Insurance companies are financial intermediaries that undertake to make payments if a certain event occurs. Their principal activity is to bear and manage risk for a price (i.e., the insurance premium). Insurance activities provide protection against the future consequences of: (i) uncertain events that may or may not occur; (ii) certain, inevitable events whose date of occurrence is unknown. There are two basic types of insurance activities: life insurance activities and non-life (property and casualty) insurance activities.

91. The tax and regulatory aspects of insurance activities differ across OECD countries and even within individual countries (e.g. in the USA rules and regulations may vary from State to State). Harmonisation of a number of regulations has taken place within the European Union in the form of EU Directives.

Tax and regulatory aspects of life insurance activities

92. All OECD countries provide some tax concessions for the purchase, maintenance or execution of life insurance policies [5]. In most countries, tax relief is provided for premiums paid. Policies that are primarily survivorship contracts (e.g., endowments and annuities) are more likely to enjoy tax preferences.

93. The regulatory regime concerning investments of technical provisions is another determinant that influences life insurance investment activities. Each OECD country has regulations with respect to (i) the types of securities that are eligible for investment, and (ii) the valuation of these securities for regulatory purposes. All OECD countries, and in the United States, the individual states, have approved lists of investments which insurance companies are allowed to hold. The rationale of these lists is to ensure that eligible investments possess acceptable levels of investment risk. Most OECD countries impose maximum limits on classes of investment: quoted and unquoted domestic shares, foreign securities, real estate, mortgage loans and other loans [Table A2]. The general purpose of these maximum levels is to restrict the default and liquidity risks of investments. Maxima are also applied to ensure that there is sufficient portfolio diversification of investment holdings. Although regulatory investment maxima vary widely across OECD countries, the actual investment portfolios of insurance companies do not appear very much constrained by these maxima. Apparently, in many instances the limits that have been set by the regulatory authorities have been higher than what most insurance companies would themselves view as prudent levels [6].

94. Another important area of investment regulation concerns the matching of assets and liabilities in terms of maturity and currency. Only 5 OECD countries (Greece, Mexico, Norway, Sweden and Ireland) have statutory requirement for maturity or duration matching. However, in most OECD countries the regulatory authorities review on an informal basis the time profiles of assets and liabilities as part of the

wider assessment of the solvency of an insurance company. A serious mismatch of assets and liabilities would endanger the solvency of life insurance companies which tend to have longer-term liabilities with often implicit interest guarantees. Life insurance companies need therefore to ensure that the duration of their investments are broadly in line with their mainly long-term liabilities, in order to minimise the inherent interest rate risk. One of the main investment risks for a life insurance company is that with many short-term assets it would face a reinvestment risk in market situations with lower interest rates than warranted by the (often implicit) interest guarantees on its long-term liabilities. Moreover, for life contracts with a significant savings component, legal requirements and/or competitive pressures demand that the rates of returns on investment holdings maintain their value in real terms.

95. In nearly all OECD countries there are statutory requirements for some degree of currency matching. Currency matching requirements are separate from restrictions on foreign investments [Table A3]. The latter are based on default and liquidity risk considerations.

96. In all OECD countries insurance companies are free to use derivatives in connection with the investment of their capital funds. However, a number of countries restrict their use in the investment of technical (mathematical) reserves [Table A4]. In almost all OECD countries the use of derivatives is restricted to risk management purposes. In many countries the writing of options is only allowed when they are covered.

Regulatory treatment of the non-life insurance business

97. Competitive pressures have made the need for price regulation less desirable than in the past. Regulation of prices could even backfire when imposed prices lead to the withdrawal of insurers offering insurance. Regulations governing eligible investments have been imposed to reduce the likelihood of insolvency. In most OECD countries, the same maximum percentages in investment classes apply for non-life and life companies. Differences between life insurance and non-life insurance can be found in Canada, Ireland, Italy, Japan, Portugal, and some states (e.g., Delaware and New Jersey) for the United States [Table A2]. In view of the different nature of investment risks in the two sectors, this degree of uniformity is surprising. Practical problems regarding the enforceability of these rules seem to be the main reason why there are no bigger differences [8].

98. For non-life companies maturity matching is relatively unimportant, because the duration of technical provisions is shorter than those of life companies and there are no interest guarantees. On the other hand, currency matching is even of greater importance for non-life companies since there is uncertainty about the timing of claim payments.

Table A2: Maximum percentage that can be invested in a given class of Investments

	Domestic shares (quoted)		Domestic shares (unquoted)		Foreign shares		Foreign bonds and other securities		Real Estate		Loans (mortgage)		Loans (non-mortgage)	
	Non-life	Life	Non-life	Life	Non-life	Life	Non-life	Life	Non-life	Life	Non-life	Life	Non-life	Life
Australia	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Austria	30a	30e	5	5	30a	30e	-	-	30a	30e	-	-	0	0
Belgium	-	-	10a	10e	10a(2)	10e(2)	10(3)	10(3)	10(4)	10(4)	-	-	5(5)	5(5)
Canada	25a	5-25e	25a	5-25e	0	5-25e	0	-	10	5-25e	-	-	5	5
Denmark	40a	40e	10	10	40a,d	40d,e	-	-	-	-	-	-	10	10
Finland	20	20	0	0	0	0	0	0	-	-	-	-	-	-
France	65a	65e	65a	65e	65a	65e	-	-	40	40	10b	10f	10b	10f
Germany	30	30	10	10	6	6	5	5	25	25	50a	50e	50a	50e
Greece	30a	30e	30a	30e	30a	30e	-	-	40	50	10b	10f	10b	10f
Iceland	40a	40e	10b	10f	40a	40e	10b	10f	-	-	-	-	10b	10f
Ireland	50-60a	55e	20	2.5	50-60a	55e	-	-	60	25	15-30b	10	15-30b	45
Italy	20	20	20	20	10	20	30	50	35	50	20	50	0	0
Japan	30a	30e	30a	30e	30b	30f	30b	30f	20	20	55c	-	55c	10
Luxembourg	10	10	5	5	5	5	10	10	40	40	10a	10e	0	0
Mexico	30	30	30	30	30	30	30	30	40	40	40	40	40	40
Netherlands	-	-	10	10	-	-	-	-	-	-	10	10	5j	8j
Norway	20a	20e	20a	20e	20a	20e	30b	30f	30b	30f	30b	30f	30b	30f
Portugal	25a	25e	10	10	25a	25e	60	60	35	45	10	25	10	25
Spain	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sweden	25a	25e	25a	25e	25a	25e	-	-	25b	25f	25b	25e	10	10
Switzerland	30a	30e	30a	30e	25b	25f	20b	20f	-	-	-	-	0	0
Turkey	-	-	10	10	-	-	-	-	20	20	20	20	20	20
UK	-	-	10a	10e	-	-	-	-	-	-	10a	10e	10a	10e
USA(New Jersey)	-	15e	-	15e	h	i	h	i	5	10	40	60	-	-
USA (Delaware)	40a	(1)	40a	(1)	5	5	5	5	25	25	50	50	-	-

- a) maximum for these classes of investment combined (Non-life)
b) maximum for these classes of investment combined (Non-life)
c) maximum for these classes of investment combined (Non-life)

d) if unquoted then ten per cent

e) maximum for these classes of investment combined (Life) which would constitute one single investment

f) maximum for these classes of investment combined (Life)

g) maximum for these classes of investment combined (Life); only for unqualified non-mortgage loans

h) investment must not exceed the value of outstanding policies in the foreign country

i) five per cent in the aggregate; two per cent in foreign countries, except for "qualified foreign investment" defined in the statute

j) unsecured loans.

1. 250 per cent (at market value) of the capital and surplus
2. unquoted shares only
3. only State and enterprises bonds outside of area A (see the Directive 89/647/EEC)
4. investments in a single real estate or in several real estate close to one another
5. five per cent with a maximum of one per cent for one single loan

Note: maxima in respect of foreign investments are separate from the currency matching requirements for foreign liabilities

Source: OECD Policy Issues in Insurance, Paris 1996, OECD submissions.

Table A3: Currency matching requirements

	Required percentage of currency matching of technical provision		Does currency matching extend to equalisation (claim fluctuation) reserves?		Extent to which ECU denominated securities can be used for matching	
	Non-life	Life	Non-life	Life	Non-life	Life
Australia	-	-	n/a	n/a	n/a	n/a
Austria	80	80	Yes	n/a	100	100
Belgium	80	80	Yes	n/a	100	100
Canada	100	100	n/a	n/a	n/a	n/a
Denmark	80	80	Yes	Yes	50	50
Finland	100	95	n/a	n/a	n/a	n/a
France	80	80	Yes	Yes	0	0
Germany	80	80	Yes	n/a	50	50
Greece	80	80	n/a	n/a	100	100
Iceland	80	80	Yes	Yes	50	50
Ireland	80	80	Yes	n/a	50	50
Italy	80	80	Yes	n/a	100	100
Japan	No	No	No	No	n/a	No
Luxembourg	80	80	n/a	n/a	0	0
Mexico	-	-	-	-	n/a	n/a
Netherlands	80	80	Yes	-	100	100
Norway	80	80	Yes	Yes	80	80
Portugal	80	80	Yes	Yes	50	50
Spain	80	80	Yes	n/a	-	-
Sweden	80	80	n/a	n/a	0	0
Switzerland	80	80	n/a	n/a	80	80
Turkey	100	100	n/a	n/a	n/a	n/a
UK	80	80	No	n/a	0	0
USA(New Jersey)	100	100	n/a	n/a	n/a	n/a
USA (Delaware)	100	100	n/a	n/a	n/a	n/a

Source: Table A2

Table A4: Use of financial derivatives

	Can they be used in respect of the investment of technical provisions?		Can they be used in respect of the investment of capital funds?		Purpose for which they can be used	
	Non-life	Life	Non-life	Life	Non-life	Life
Australia	Yes	Yes	Yes	Yes	Hedging*	Hedging*
Austria	Yes	Yes	Yes	Yes	Hedging*	Hedging*
Belgium	Yes	Yes	Yes	Yes	Hedging*	Hedging*
Canada	Yes	Yes	Yes	Yes	Hedging*	Hedging*
Denmark	Yes	Yes	Yes	Yes	Hedging*	Hedging*
Finland	Yes	Yes	Yes	Yes	Hedging*	Hedging*
France	No	No	Yes	Yes	Hedging*	Hedging*
Germany	Yes	Yes	Yes	Yes	Hedging*	Hedging*
Greece	-	-	-	-		
Iceland	Yes	Yes	Yes	Yes	Hedging	Hedging
Ireland	Yes	Yes	Yes	Yes	Hedging	Hedging*
Italy	Yes	Yes	Yes	Yes	Hedging	Hedging
Japan	Yes	Yes	Yes	Yes	Hedging*	Hedging*
Luxembourg	Yes	Yes	Yes	Yes	Hedging*	Hedging*
Mexico	No	No	Yes	Yes	Hedging	Hedging
Netherlands	Yes	Yes	Yes	Yes	Hedging*	Hedging*
Norway	Yes	Yes	Yes	Yes	Hedging*	Hedging*
Portugal	Yes	Yes	Yes	Yes	Hedging	Hedging
Spain	No	No	Yes	Yes	Hedging	Hedging
Sweden	Yes	Yes	Yes	Yes	Hedging*	Hedging*
Switzerland	No	No	Yes	Yes	Hedging*	Hedging*
Turkey	Yes	Yes	Yes	Yes	Hedging	Hedging
UK	Yes	Yes	Yes	Yes	Hedging*	Hedging*
USA(New Jersey)	Yes	Yes	Yes	Yes	Hedging*	Hedging*
USA (Delaware)	Yes	Yes	Yes	Yes	Hedging*	Hedging*

* Also allowed to write covered call options

Source: Table A2

Pension Funds

99. In all OECD countries pension funds have become major institutional investors and important players in the capital markets due to the following factors:

- income and wealth have grown steadily since World War II, providing households with more funds for long-term savings;
- people are living longer and have larger financial needs during longer retirement periods;
- pension claims are tax free until after workers retire and income from employment ceases.

100. Pension fund schemes can be classified into the following three categories [Table B1]:

i. Public managed pension schemes with defined benefits and pay-as-you-go finance, usually based on a payroll tax. They are mandatory for covered workers. In most OECD countries coverage is (near) universal.

ii. Occupational pension funds that are privately managed and offered by employers to employees. Thanks to tax advantages not available to personal pension plans, coverage grew in most OECD countries. Currently more than one-third of the working age population (or more than 40 per cent of the labour force) is covered in OECD countries. Within this category of funds there is a trend in OECD countries from defined benefit and partially funded schemes toward defined contribution schemes.

iii. Personal pension plans in the form of saving and annuity schemes. These schemes are normally voluntary and based on fully funded defined contribution plans. In some non-OECD countries (e.g., Singapore and Malaysia) there exist publicly managed, mandatory schemes that are fully funded and based on defined contributions, known as provident funds. Tax incentives encourage the development of these plans, although at present their share of total income in old age is relatively small.

101. An overview of the structure of pension provisions in a sample of OECD countries is given in [Tables B2 and B3].

Tax treatment of pension schemes

102. Unlike other types of institutional investors, pension funds in most OECD countries benefit from tax deferral: contributions and accumulated interest and capital gains are tax free; tax is paid on receipt of a pension after retirement. Reasons for the favourable tax treatment of pension schemes include: (i) the argument that there is a need to encourage people to save enough to maintain post retirement living standards; (ii) this in turn would mean that when people save enough it would reduce the cost to the state to provide means-tested social security benefits; and (iii) it is also hoped that the general level of saving would be raised. The tax treatment of pension schemes differ widely across OECD countries [Tables B2-B3].

Regulatory aspects of pension fund activities

103. Quantitative regulation of portfolio holdings are in place in a number of OECD countries. Reasons include the protection of pension fund beneficiaries or benefit insurers and, in some countries, the creation of a steady demand for government securities [11]. Limits are often imposed on holdings with relatively volatile returns, such as equities, real estate and foreign assets, although their mean return might be higher (e.g. on equity) than on assets with so-called stable returns (e.g. government bonds with a fixed coupon). There are often also limits on self investment, to protect against the associated concentration of risk regarding insolvency of the plan sponsor.

104. A number of countries do not impose quantitative limits but impose guidelines such as the so-called "prudent man rule". Under the prudent man rule, fiduciaries, trustees, and bank trust departments are expected to behave as careful professionals in making investment decisions. In the United States the Employment Retirement Security Act (ERISA) stipulates that the fiduciary must be knowledgeable enough to act as a careful professional, experienced and educated in trust and financial matters. "Prudence" is a design standard, not a performance standard. This is reflected in the two most significant elements of the rule: (i) the requirement to diversify; (ii) the exhortation to favour "seasoned" situations that similarly-placed institutions find appropriate. In the United States, the application of this design standard to investment decisions has led to the overwhelming preponderance of pension equity money being invested in the limited number of listed securities of American corporations with large capitalisation. It may also account for the increase in the "index mode" of investments.

105. Prudential concerns are also often mentioned as the rationale for regulatory constraints on portfolio holdings of foreign securities [Table B9]. Other motives (for example, the "benchmark" orientation of fund managers) are, however, also mentioned in the literature (see section 6.1).

106. Funding rules are a key aspect of the regulation of defined benefit pension funds. A defined contribution is by definition always funded. However, with defined benefit schemes one needs to make a distinction between the pension plan (i.e. the contractual rights of the parties) and the pension fund (i.e. the pool of assets to provide cover for the promised benefits). Under/over funding is the situation when the fund is worth less/more than the present discounted value of the promised benefits. Minimum funding rules seek to protect the beneficiaries against default risk by the company. Since unfunded benefits are liabilities for the company, pensioners or pension insurers (see below) may have no better claim than other creditors. Other regulatory issues concern ownership of surpluses, portability, internal transfers, fraud, disclosure, and the structure and mechanics of supervision [see Tables B2-B3, for a summary].

Table B2: Summary of Pension Asset Regulations

	Portfolio regulations	Regulation of funding (1)
United Kingdom	Prudent man concept; 5 per cent self investment limit, concentration limit for defined contribution plans.	Maximum 5 per cent overfund of PBO or IBO. Funding only obligatory for contracted out part of social security.
Germany	Guidelines: maximum 30 per cent EU equity, 25 percent EU property, 6 Per cent non-EU shares, 6 per cent non-EU bonds, 20 per cent overall foreign assets, 10 per cent self investment limit.	Funding obligatory up to PBO. Option of book-reserve funding.
Netherlands	Prudent man concept; 5 per cent self investment limit, whereby free reserves can be added up to a total limit of 10 per cent.	Minimum funding requirement is present value of ABO discounted at 4 per cent; percentage of overfunding dependent on composition of investment portfolio and volatility of relevant investment returns; maximum 15 per cent overfund of ABO, minimum is ABO itself.
Sweden	Majority to be in listed bonds, debentures and retroverse loans to contributors.	For ATO, IBO is funded. Contribution rate adjusted 5-yearly to balance fund.
Denmark	Property loans, shares and investment trust holdings limited to 40 per cent, foreign assets to 20 per cent; 60 per cent to be in domestic debt. No self investment.	Irrelevant as defined contribution; benefits must be funded externally.
France	Assets of supplementary funds (ARRCO/AGIRC) to be invested 50 per cent in EU government bonds and less than 33 per cent in loans to sponsors. insured funds to be at least 34 per cent state bonds, maximum 40 per cent property and 15 per cent Treasury deposits. No foreign assets.	Funded company schemes forbidden: book reserve funding subject to tax discrimination.
Italy	No pension law for self administered schemes. Most schemes are insured investments may be in state bonds (maximum 90 per cent), bank deposits, property, mortgages, securities, investment funds.	No pension law for self administered schemes; draft law proposes payments equal to 7 per sent of salary. Insured plans must be fully funded on a 15 year projection.
Ireland	Schemes must diversify prudently, any self investment to be declared.	Funding of ABO required; deferred rights indexed.
Belgium	15 per cent to be invested in government bonds, no more than 15 per cent in sponsor, 40 per cent limit on real estate, 10 per cent deposits.	Funding obligatory of ABO based on current salary, interest rate 7 per cent.
Spain	90 per cent in stocks, bonds, mortgages, property, deposits.	Funding obligatory of ABO plus 4 per cent margin; maximum interest rate 6 per cent.
Portugal	30 per cent to be invested in government bonds, maxima of 50 per cent real estate, 15 per cent self investment, 40 per cent equities and bonds not listed in Portugal.	Funding obligatory of ABO.
Norway	Maximum 20 per cent in shares; maximum 30 per cent in loans that are not issued or guaranteed by: the government or municipalities; financial institutions or EU credit institutions; and investment in other real estate than negotiable property.	Funds should, at least, cover the difference between PBO and NPV of future contributions, based on an interest rate of 3 per cent.

(1) ABO refers to the accrued benefit obligation; PBO the projected benefit obligation

Source: Davis (1995), EFRP, OECD.

Table B3: Features of Funded Pension systems

	UK	US	Germany
Nature of benefits for average member	Largely defined benefit based on final salary.	Primary cover largely defined benefit based on final salary. Supplementary defined contribution plans widespread.	Largely defined benefit with flat rate benefit based on years of service.
Taxation of funded schemes	Contributions and asset returns tax free. Benefits taxed, except tax free lump sum.	Contributions and asset returns tax free. Benefits taxed.	Employers' contributions taxed as wages; employee contributions and asset returns tax free. Benefits taxed at low rate.
Social Security	Low replacement ratio. Scheme members can contract out of earnings related social security.	Low replacement ratio.	High replacement ratio.
Regulation of portfolios	Prudent man concept; 5 per cent self investment limit; concentration limit for defined contribution plans.	Prudent man concept; 10 per cent limit on self investment for defined benefit plans.	Guidelines; maximum 20 per cent equity, 5 per cent property, 4 per cent foreign; 10 per cent self investment limit.
Regulation of funding	Maximum 5 per cent overfund of IBO or PBO. Funding only obligatory for contracted out part of social security.	Maximum 50 per cent overfund of ABO. Higher insurance premia if underfunded.	Funding obligatory for pension funds. (Pensionskassen), albeit only up to PBO. Option of booking (tax exempt-pensions taxed at normal rate).
Maturity of funds	Mature.	Mature.	Immature.
Coverage of workforce (approx.)	50 per cent (company schemes) 20 per cent (personal pensions).	46 per cent.	42 per cent.
Insurance of benefits	No (although state guarantees payment of minimum pension if fund defaults).	Yes (special guarantee corporation).	Yes (via insurance supervisors). Booked benefits insured by Pension Guarantee Association.
Portability features	Vesting in 2 years. Indexation of accrued benefits. Transfers must be made to other pension funds.	Vesting in 5 years. No indexation of accrued benefits. Lump sum distribution permitted on transfer.	Vesting in 10 years. Indexation of accrued benefits.
Indexation	Discretionary (to date) but total or partial indexation common in practice (75 per cent).	Full indexation rare (5 per cent of schemes). Discretionary cost-of-living increases common.	Mandatory.

Source: Davis (1995) and OECD.

Table B3: Features of funded pension systems (continued)

	Denmark	Sweden (ATP)	Switzerland
Nature of benefits for average member	Largely defined contribution.	Defined benefit based on best income years.	Majority of schemes (60 per cent) defined contribution but with targets of 60 per cent replacement rate which contributions adjusted). 40 per cent defined benefit.
Taxation of funded schemes.	Contributions tax deductible. Fund may be taxed, including 40 per cent of lump sum.	Contributions tax free. Tax on asset returns (1991) benefits taxed at low rate.	Contributions and asset returns tax free, benefits taxed.
Social security	High replacement ratio.	Low replacement ratio; only for basic needs.	Low replacement ratio; designed to be supplemented by mandatory private scheme.
Regulation of portfolios	Real estate, investment trusts, shares limited to 40 per cent. 60 per cent in domestic debt. No self investment. Only "small proportion" can be invested in ternationally.	Majority to be in listed bonds, debentures and retroverse loans to contributors.	30 per cent limit on domestic shares; 50 per cent domestic real estate; 20 per cent foreign currency assets; 25 per cent foreign shares; overlaps are possible.
Regulation of funding	Irrelevant as defined contribution.	Contribution rate adjusted 5-yearly to ensure IBO is funded.	Funding compulsory for PBO or ABO.
Maturity of funds		Mature.	Mature
Coverage of workforce (approx.)	30 per cent (company funds) 20 per cent (personal pensions).	90 per cent (compulsory).	Above a certain salary level (SFr 23 280) 100 per cent.
Insurance of benefits		State backup as national scheme.	Yes; Government Safety Fund. Small funds backed by insurance companies.
Portability features	Immediate access to own contributions, 5 years total vesting. Transfer values can be negotiated.	Vesting immediate-national scheme and transferability perfect.	Immediate access to minimum contributions. Complete vesting for employees.
Indexation	No.	Yes.	Indexing not compulsory.

Source: Davis (1993) and OECD.

Table B3: Features of funded pension systems (continued)

	Japan	Canada	Netherlands
Nature of benefits for average member	Largely defined benefit based on years of service and career earning or final basic salary. Often taken as a lump sum.	Largely defined benefit based either on final salary or flat rate benefit.	Almost exclusively defined benefit, based for around 75 per cent of contributors on final salary.
Taxation of funded schemes.	Contributions tax free. Benefit taxed, except tax free lump sum.	Contributions and asset returns tax free. Benefits taxed.	Contributions and asset returns tax free. Benefits taxed.
Social security	High replacement ratio. Scheme members can contract out of earnings related social security.	Low replacement ratio.	Low replacement ratio.
Regulation of portfolios	Guidelines; maximum 30 per cent equity, 20 per cent property, 30 per cent foreign, 10 per cent one company. Minimum 50 per cent bonds.	Prudent man (since 1987); tax on foreign assets above 10 per cent; 7 per cent limit on real estate.	See Table B2
Regulation of funding	Funding optional. Tax exempt up to ABO only. (Book reserves tax exempt up to 40 per cent of liabilities).	Funding obligatory. Maximum 5 per cent overfund of PBO.	See Table B2
Maturity of funds	Immature.	Mature.	Mature.
Coverage of workforce (approx.)	37 per cent (funded plans only).	41 per cent.	90 per cent.
Insurance of benefits	Yes (under wage payment law). Mutual guarantee scheme for EPFs introduced 1988.	No (but social security provides backup).	No
Portability features	Vesting graded between 5 and 30 years for voluntary leavers. Low transfer values for voluntary early leavers.	Vesting after 2 years. Little indexation of accrued benefits.	Vesting in one year. Accrued benefits indexed. Transferability within extensive pension circuits with same conditions.
Indexation	Rare except for part replacing social security.	Provisions rare (6 per cent of private schemes); some discretionary increases.	Indexation almost universal (albeit not mandatory).

Source: Davis (1995) and OECD.

Table B3: Features of funded pension systems (continued)

	Norway
Nature of benefits for average member	Largely defined benefit based on final salary. Most schemes aim to provide a benefit which, together with the State scheme, corresponds to 60-66 percent of the last income earned after a contribution period of 30 years.
Taxation of funded schemes	Contributions and asset returns tax free to a certain extent for plans which comply with the regulations of the tax law. Benefits taxed as income.
Social security	High replacement ratio for low income; designed to be supplemented by mandatory private scheme.
Regulations of portfolios	See B2
Regulation of funding	See B2
Maturity of funds	
Coverage of workforce (approx.)	Compulsory occupational pension in public sector. In the private sector, 1/3 of the workforce have occupational pension scheme and about 1/4 of the overall workforce have a private pension scheme.
Insurance of benefits	Yes, via insurance supervision.
Portability features	Vesting in 3 years.
Indexation	Indexation follows social security index, which is set by the government each year.

Source: OECD.

Table B9: Regulatory Constraints on Foreign Investment by Pension Funds in Selected OECD Countries, 1994

Country	Ceiling	Matching requirements
Australia	None	None
Ireland		
Luxembourg		
Netherlands	None	None
Spain		
United Kingdom		
United States		
(a)		
Belgium	Location in Belgium	Not applicable
Canada (a)	20%	None
Japan	30%	None
Portugal	40% (only EU)	None
Switzerland (b)	30% (global)	None
	25% (equities)	
	30% (debt instruments)	
	5% (real estate)	
	20% (foreign currency)	
Denmark	“Small proportion” stipulated	80%
	60% minimum in domestic debt	
Finland	5% (foreign currency)	None
Germany	60%	100%
Sweden	5-10%	None
Norway	None	80%

(a) Applies only to private pension funds. France and Italy are not included, because private pension schemes are almost nil.

(b) Overlaps are possible.

Source: OECD

Investment Companies (Institutions for Collective Investment in Securities)

107. Investment companies are financial intermediaries that sell shares to the public and invest the proceeds in a diversified portfolio of securities. Each share sold represents a proportionate interest in the portfolio of securities managed by the investment company on behalf of the companies' shareholders. The type of securities purchased depends on the company's investment strategy.

108. The different types of investment companies are based on a common principle: individuals contribute savings to a large pool -- the mutual fund -- which is managed by a team of professional money managers. This mutual fund operation is conceptually different from asset management services offered by securities brokers (e.g. "SIMs" in Italy), banks and trust companies to individual clients.

109. There are four distinct parties involved in any type of "mutual" fund operation: (1) fund participants who contribute their savings; (2) the fund management company that invests the pool of savings and executes the necessary transactions within the framework of the rules specified in the mandate of a given mutual fund and the existing regulatory and supervisory regime; (3) the depository bank that is empowered to act as custodian for the assets of the fund, and is charged with ensuring that all transactions executed by the management company conform to the fund's regulations; and (4) the sales network that acts as a conduit for contributions to the fund. The network may consist of the branches of the depository bank or other banks, a distribution unit within the fund management company, a brokerage company or a combination.

110. By investing in a fund, an investor can effectively achieve the benefits of diversification at lower cost even if the amount of money available is not very large. Beyond risk reduction via diversification offered by the funds, there are reduced costs of contracting and information processing. In addition, money market mutual funds generally also provide payment services by allowing investors to write checks drawn on the fund, although this payment facility is limited in various ways.

The regulation of investment companies

111. Extensive regulation by governmental authorities is a characteristic of mutual fund activities in many OECD countries. A distinction needs to be made between the restrictions on the "manufacture" of investment fund products and services and restrictions on their "distribution". Although in many respects (e.g. investor protection) investment companies are required to operate under the regulatory and supervisory framework for securities markets, there are many special provisions that regulate their activities. Regulations cover usually the following key areas: self dealings and affiliated party transactions; management fees of professional fund managers; capital structures; investment objectives and policies; protection of physical integrity of the asset pool; fair valuation of investor purchases and redemptions; and the disclosure of reliable information to investors.

112. In the **United States**, all investment companies are regulated at the federal level according to the Investment Company Act of 1940. This Act established a comprehensive framework of federal regulation for the protection of United States investors, including disclosure, accounting, pricing, the use of leverage, transactions with affiliates, and the custody of fund assets. The securities issued by investment companies must be registered with the SEC. The Insider Trading and Securities Fraud Enforcement Act of 1988 requires mutual funds investment advisors to institute and enforce procedures that reduce the chances of insider trading. The purchases and sales of mutual fund shares must meet the requirement of fair dealing that the SEC and the NASD, a self-regulatory organisation, have established for all securities transactions in the United States. Fees charged by mutual funds are also subject to United States regulations. In addition to

federal regulations, mutual funds are subject to the “Blue Sky” laws of each state, which include, among other provisions, restrictions on certain types of investments.

113. Regulation of the investment companies in *Japan* is conducted by the Ministry of Finance (MOF) and a self-regulatory organisation, the Investment Trust Association. Securities investment trusts (an investment vehicle in many ways similar to a US mutual fund) are regulated along the lines of the 1951 Securities Investment Trust, as amended [14]. A securities investment trust is a contractual agreement among four parties: The investor who buys beneficiary certificates; the management company that issues the certificates and decides on the investments of the trust; the securities company that sells the certificates; and the trustee, which is a trust bank that manages the assets at the direction of the management company. If an investment trust is an open type trust, investors can purchase new certificates, there is no specific maturity date, and the size of the trust is not fixed. A unit type of trust is somewhat similar to a closed-end fund: After it is issued at fixed cost per certificate, no new certificates are sold and no new money is raised. The typical unit trust matures five years after issuing its certificates. The MOF must license securities firms (or subsidiaries) before they may act as the manager of a securities investment trust.

114. The regulatory situation in *Western Europe* has undergone important changes since the adoption of the 1985 EU Directive on Undertakings for Collective Investment in Transferable Securities (UCITS). The UCITS Directive stipulates which types of investment companies are allowed and which can advertise and market their products across the EU area. Moreover, it contains the co-ordination of an agreed upon set of minimum standards for investor protection, leaving considerable scope for EU countries to compete with each other. Consequently, some EU countries have relatively liberal investment fund regulations (e.g. Belgium, France, Ireland, Luxembourg and The Netherlands) that are not in conflict with the minimum standards of the UCITS Directive. The draft 1993 Directive amending the 1985 UCITS Directive investment fund companies would allow (i.e. when adopted) investment companies to advertise and market MMMFs and funds-of-funds across the EU area.

115. The 1988 *Luxembourg* Investment Company Act provides considerable freedom to investment companies regarding legal structure (contractual form, the joint stock company with variable capital or SICAV form, the common fund or FCP form, or any other form of collective investment) and investment objectives of the investment fund. The Luxembourg law includes also regulation of funds that are not covered by the UCITS Directive, including venture capital funds, derivatives funds, index funds, foreign currency funds, family or group of funds, government securities funds, etc. These non-UCITS funds are not allowed to be advertised and marketed across the EU area. Also, *France* has relatively liberal investment fund rules. Money market mutual funds (MMMFs) have grown spectacularly. But other funds have also grown steadily, including risk capital funds, funds-of-funds, index funds, and financial futures, options and warrant funds.

116. More "conservative" European countries such as *Germany* and *Switzerland* have reacted to these new initiatives and competition from other European countries by giving more freedom to investment companies. Germany allows now the operation of MMMF. Existing investment funds have gained greater flexibility to engage in derivatives transactions for risk management purposes; they may invest up to 10 per cent of total assets in unquoted financial assets. The new Swiss Investment Fund Act of March 1994 has considerably widened the scope for new investment fund products. Both German and Swiss investment funds have been expanding their presence in Luxembourg in response to investment fund restrictions at home and, more important, to tax factors.

117. Restrictions on the distribution of investment fund products (including restrictions on cross-border sales of products and services) are usually motivated by investor protection concerns. Most OECD

countries other than France, the United Kingdom, Italy, Switzerland and the United States, seem not to have in place special regulations dealing with the sale and marketing of investment products.

118. In the *United States* the sale of investment fund products has traditionally been subject to tight and detailed regulations. The SEC is currently undertaking a comprehensive review of current disclosure requirements. In addition, the Commission is working on the development of a “fund profile”. The profile contains the fund’s key features in a standardised format designed to facilitate comparison among funds. Another noteworthy development is that US legislators are currently considering a set of amendments to the Investment Company Act designed to modernise certain aspects of mutual fund regulation, including the authorisation to allow the SEC to create a new, more investor-friendly fund “advertising prospectus. A final point of regulatory attention for the authorities is the recent sharp surge in the sale of investment products via the banking system.

119. The new *Swiss* Investment Fund Act covers the sale of investment products. According to this Act, foreign investment funds will be allowed to be marketed in Switzerland, provided that the fund management companies from the home countries: (i) have supervisory practices and investor protection rules that are judged to be "equivalent" (not necessarily "identical" or "equal") to the one in Switzerland; (ii) have a legal presence in Switzerland; and (iii) have sales practices in compliance with the new Investment Act.

120. As noted above, the *EU* UCITS Directive allows the free distribution of UCIT-defined investment fund products within the European Union. However, many OECD countries have very detailed and complex investor protection rules that inhibit at present the free cross-border sale of investment products.

121. Direct regulation of portfolio holdings of investment funds are largely in the form of constraints on outward portfolio investments. However, these constraints are usually formulated in terms of limits on illiquid securities or in the form of asset diversification rules. For example, in the United States a mutual funds may not hold more than 15 per cent of its net assets in illiquid assets.

NOTES TO ANNEX I

- 1) See "Institutional Investors and Capital markets: 1991 Update", Columbia Institutional Investor Project, Columbia University School of Law, September 1991.
- 2) An update of this annex can be found in H.J. Blommestein, The Impact of Institutional Investors on OECD Financial Financial Markets, in: *Institutional Investors in the New Financial Landscape*, OECD, Forthcoming.
- 3) "Insurance and other financial services -- structural trends", OECD, 1992.
- 4) The reason is that guaranteed surrender values are not a legal requirement in some countries. Consequently investments by insurance companies does not have to be concentrated in fixed-income securities, whose value is predictable for matching purposes .
- 5) "Policy issues in insurance -- investment, taxation, insolvency", OECD, 1996.
- 6) "Policy issues in insurance -- investment, taxation, insolvency", OECD, 1996.
- 7) "Insurance and other financial services -- structural trends", OECD, 1992.
- 8) "Policy issues in insurance", OECD, 1996.
- 9) Reforming Public Pensions. Series OECD Social Policy Studies No. 5, OECD, 1988; Private Pensions and Public Policy, OECD 1992.
- 10) Financial Times, The fund manager as a herd animal, April 15, 1996.
- 11) E. P. Davis, 1995, "Pension Funds", Clarendon Press, Oxford; see for restrictions on "foreign assets" DAFPE/CMF(96)19 and DAFPE/INS(96)1.
- 12) Even though hedge funds are not subject to specific securities regulations, they still have to comply with general rules such as commercial codes.
- 13) Financial Times, Mighty humbled but they're here to stay, December 4, 1995, p. 29.
- 14) M. C. Whitener and E. Hiraki, Managing Money in Japan, International Financial Law Review, Supplement (April 1990).

**ANNEX II - STOCK MARKET DEVELOPMENT IN THE TRANSITION ECONOMIES,
END 1996¹**

<i>Stock exchange</i>	<i>Number of shares²</i>	<i>Shares capitalisation (US\$ million)³</i>	<i>Turnover per session (US\$ million)³</i>	<i>Annual turnover (US\$ million)³</i>	<i>Share turnover (per cent of capitalisation)</i>	<i>Share capitalisation (per cent of GDP)</i>
Russia (RTS) ⁴	160	19 911.50	41.00	10 800.00	54.24	3.94
Prague	1 671	19 790.15	36.84	9 172.60	46.35	40.03
Warsaw	83	8 155.99	41.73	10.432.39	127.91	6.43
Bratislava	950	5 632.66	12.80	3 200.00	56.81	30.93
Budapest	45	5 269.09	12.23	3 031.99	57.54	12.55
Zagreb	68	1 359.12	n.a.	103.86	7.64	7.52
Ljubljana	52	1 229.47	0.58	145.25	11.81	7.32
Vilnius	350	899.93	0.33	47.23	5.25	8.98
Tallinn	16	896.20	1.39	366.30	40.87	18.80
Kiev	0	600.00	n.a.	17.00	2.83	1.38
Riga	34	115.23	0.12	11.67	10.13	2.34
Bucharest	21	72.64	0.24 ⁵	6.24	8.60	0.28
Skopje	3	63.61	n.a.	0.40	0.63	1.83
Sofia	26	4.86	0.04 ⁵	0.01	0.17	0.17
NYSE	-	5 654 815.40	-	3 082 916.10	54.52	77.99
London	-	1 346 640.70	-	1 153 221.30	85.64	121.32
Germany	-	577 364.80	-	593 936.20	102.87	23.96
Paris	-	499 989.60	-	716 507.60	143.30	32.25
Kuala Lumpur	-	213 757.40	-	60 792.40	28.44	254.17
San Paulo	-	147 635.80	-	57 024.50	38.62	21.94
Thailand	-	135 774.20	-	59 303.30	43.68	81.31
Mexico	-	90 694.00	-	35 037.20	38.63	37.63
Santiago	-	72 927.70	-	11 411.60	15.66	108.36
Buenos Aires	-	37 783.80	-	31 932.60	84.51	13.45
New Zealand	-	31 949.80	-	8 718.00	27.28	54.89

1. Data for comparative stock exchanges refer to 1995; 2. Data for transition economies refer to listed and unlisted shares while data for comparative stock exchanges refer to listed shares only; 3. Exchange rate of 6 Jan. 1997; 4. 90 stocks on RTS-1 and 70 stocks on RTS-2, all other data refer to RTS-1 only. Annual turnover is a projection of Jan. 1997 total turnover; 5. US\$ thousands.

Source: Individual stock exchanges.

NOTES

¹ H. J. Blommestein, The Impact of Institutional Investors on OECD Capital Markets, in: Institutional Investors In the New Financial Landscape, OECD, Forthcoming.

² H. J. Blommestein, The Impact of Institutional Investors on OECD Capital Markets, in: Institutional Investors In the New Financial Landscape, OECD, Forthcoming.

³ Investment Funds in Emerging Markets, IFC, 1996.

⁴ Private Capital Flows to Developing Countries, World Bank 1997.

⁵ Private Capital Flows to Developing Countries, World Bank 1997.

⁶ Modern portfolio theory suggests that pooling of securities in a domestic market can eliminate unsystematic risk resulting from the different performance of enterprises and sectors but not, in a national market, the systematic risk resulting from the performance of the economy as a whole [45]. Systematic risk would be minimised by holding the world market portfolio [46].

However, all the evidence points to the fact that all types of institutional investors (including mutual funds) are much less internationally diversified than the world market portfolio. In fact, the divergence between the world portfolio and observed portfolios is even larger when one takes into account the very high correlation between the returns to human and physical capital [47]. Reasons for this home bias include:

Additional risks in the form of exchange-rate risk, transfer risk, settlement risk, and liquidity risk;

The benefits of international diversification are dependent on the type of asset and the degree of financial market integration. Bond markets are probably more internationally integrated than other asset markets and hence there is less benefit from diversification out of domestic markets [48]. In contrast, equities can be expected to yield higher benefits. Although real estate is a real asset similar to equity, it is more risky because it is less liquid and its value is dependent on sometimes hard-to-acquire and to assess local information. Surveys of internal investment rules reflect this line of argument (equity investments have the highest portfolio limit for foreign assets and property the lowest);

A third possible reason is that the argument for holding the world portfolio is based on the efficiency of markets. If markets are inefficient -- e.g. in the form of speculative bubbles -- then the optimal level of diversification cannot be based on the global portfolio. Instead, it needs to be calculated in a different way [49];

A fourth reason is related to the fact that the investment behaviour of institutional investors is partly determined by the nature of their liabilities. For example, many pension schemes and life insurance contracts have very precisely defined nominal liabilities. In these cases, the preferred investment strategy may be to match domestic liabilities with domestic assets;

Regulatory constraints on foreign investments constitute another reason for the home-bias of institutional investors;

The "benchmark" orientation of fund managers may be an important reason why domestic assets may be "over-represented" in comparison to the predictions of modern portfolio theory;

Finally, there is evidence that downside market movements occur much more in parallel than upside ones. Unfortunately, downside risk matters more than upside risk.

⁷ H. J. Blommestein (1995), *Structural Changes in Financial Markets: Overview of Trends and Prospects*, in: *The New Financial Landscape*, OECD.

⁸ The following broad picture emerges from an analysis of the links between institutional investors and professional fund managers:

First, fund managers may work in four different basic types of institutional set-up: (1) in the fund or trust departments of banks; (2) in separately capitalised fund (or money) management companies which may be owned by banks or insurance companies; (3) independent money management companies (that is, firms that or not affiliated with an insurance company or bank); (4) the in-house fund management departments of large insurance companies and pension funds.

Second, the total amount of professionally managed funds is larger than the portfolios of the "classic" (regulated) institutional investors. Fund management companies are also involved in the management of portfolios of "high-net worth" individuals, the non-pension fund money of non-financial enterprises, foundations and endowment funds, and non-pension fund money managed by banks, as well as the bank's and securities firm's own portfolios (proprietary trading by banks and securities firms have expanded strongly).

Third, the number of asset portfolio managers is smaller than the number of institutional investors whose portfolios are professionally managed. The smaller insurance companies and pension funds usually give portfolio management mandates to outside fund management teams. In many cases, fund management companies pool the funds of the smaller institutional investors. There is also some evidence that the larger institutional funds have reduced the number of managers investing their assets [6]. Institutional investors are increasingly indexing assets, thereby reducing the need for a large number of asset portfolio managers.

Finally, to the extent that insurance companies and pension funds invest directly in investment fund shares, they reduce the amount of assets that would have to be invested by the fund's own managers in the capital and money markets.

⁹ R. Hausmann and L. Rojas-Suarez, eds., *Banking Crises in Latin-America*, IDB, 1996.

¹⁰ L. Rojas-Suarez and S.R. Weisbrod, *Building Stability in Latin American Financial Markets*, in: R. Hausmann and H. Reisen, eds., *Securing Stability and Growth in Latin America*, OECD, 1996.

¹¹ H. J. Blommestein, *Transformation of the Banking Sector in Central and Eastern Europe: Policy Assessment and Next Steps*, in: *The New Banking Landscape in Central and Eastern Europe*, OECD, Forthcoming.

¹² H. J. Blommestein and M. G. Spencer (1994), *The Role of Financial Institutions in the Transition to a Market Economy*, in: D. Folkerts-Landau et al., eds., *Building Sound Finance in Emerging Market Economies*, IMF.

¹³ L. Rojas-Suarez and S.R. Weisbrod, *Building Stability in Latin American Financial Markets*, in: R. Hausmann and H. Reisen, eds., *Securing Stability and Growth in Latin America*, OECD, 1996.

¹⁴ The stock of financial savings is defined here as the sum of the stock of deposits in commercial banks and the capitalisation of the stock market.

- ¹⁵ The World Bank has calculated that infrastructure investment requirements in east Asian economies could be as high as \$ 1.5 trillion for the 1995-2004 period. Bond markets are seen as the biggest source of funds [see Financial Times, September 23, 1997, Special section on Asian Infrastructure].
- ¹⁶ See Bank for International Settlements, 67th Annual Report, June 1997.
- ¹⁷ World Bank 1994, Averting the Old Age Crisis.
- ¹⁸ See Institutional Investors, Statistical Yearbook 1997, OECD, Paris, Table 8, p. 28.
- ¹⁹ Hungary (November 1993), the Czech Republic (February 1994) and the Slovak Republic (July 1996)
- ²⁰ Russia is an example of where pension funds exist but are completely unregulated (see EBRD [1996] Transition Report).
- ²¹ See Section 4, Table 8.
- ²² See Section 4.
- ²³ World Bank (1997), Private Capital Flows to Developing Countries: The Road to Financial Integration, Washington D.C.
- ²⁴ See the section on *The role of foreign institutional investors*.
- ²⁵ World Bank (1997), Private Capital Flows to Developing Countries: The Road to Financial Integration, Washington DC
- ²⁶ World Bank (1997), Private Capital Flows to Developing Countries: The Road to Financial Integration, Washington DC
- ²⁷ H.J. Blommestein, The Impact of Institutional Investors on OECD Capital Markets, in: Institutional Investors In the New Financial Landscape, OECD, forthcoming.
- ²⁸ Institutional Investors in the New Financial Landscape, OECD, Forthcoming.
- ²⁹ See section 5 for details.
- ³⁰ World Bank (1997), Private Capital Flows to Developing Countries: The Road to Financial Integration, Washington DC
- ³¹ See World Bank (1997), Private Capital Flows to Developing Countries: The Road to Financial Integration, Washington DC and below, this section.
- ³² Market share as measured by accumulated net premium income; see B. Fischer (1997), The Role of Contractual Savings Institutions in Emerging Markets, in: Institutional Investors in the New Financial Landscape, OECD, forthcoming.
- ³³ See World Bank (1994), World Development Report, Washington DC; and F.J. Outreville (1994), Life Insurance in Developing Countries. A Cross-Country Analysis, UNCTAD/OSG/Discussion Paper No. 93, Geneva.
34. See Tables 3 and 7.

35. M. Queisser (1997), Regulation and Supervision of Pension Funds - Principles and Practices, Paper prepared for the ISSA VII Regional Conference for the Americas, Montevideo, November 1997.
36. See Section 5.
37. See Table 8.
38. D. Vittas and R. Michelitsch (1995), Pension Funds in Central Europe and Russia, Policy Research Working Paper No. 1459, World Bank.
- ³⁹ H.J. Blommestein and K. Bilotft (1995), Trends, Structural changes and Prospects in OECD Capital Markets; in: The New Financial Landscape, OECD, Paris.
- ⁴⁰ See R.D. Strahota (1996), Securities Regulation in Emerging Markets: Some Issues and Suggested Answers, Paper prepared for the SEC International Institute for Securities Market Development, April.
41. R. La Porta, F. Lopez-de-Silanes, A. Shleifer and R. Vishny, Law and finance, 1996, NBER Working Paper No. 5661.
- ⁴² D. Vittas (1997), Regulatory Controversies of Private Pension Funds, in: Institutional Investors in the New Financial Landscape, OECD, forthcoming.
- ⁴³ See table 9.
- ⁴⁴ World Bank (1997), Private Capital Flows to Developing Countries, Washington .DC
45. See H.J. Blommestein (1997), the Impact of Institutional Investors on Financial Markets in OECD Countries, OECD, forthcoming.
46. See Section 4.
47. See Table 9.
48. See Section 6.