



Financial Stability Issues

**THE INSURANCE SECTOR AND FINANCIAL STABILITY:
AN INTERNATIONAL PERSPECTIVE AND AN
ASSESSMENT OF THE SITUATION IN ISRAEL**

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The Insurance Sector and Financial Stability: an International Perspective and an Assessment of the Situation in Israel

Abstract

This study examines the connections between the insurance sector and financial stability in Israel, against the backdrop of financial crises of the last two decades in many countries, in which insurance firms were involved. The point of departure is the knowledge and experience that has been acquired on the subject worldwide in recent years. I review the main reasons—structural and others—for the collapse of insurance firms in various countries in the world and the conditions in which their collapse endangers the financial system (the contagion effect). I then examine the structural and systemic risks embodied in the activity of the insurance sector in the conditions obtaining in Israel, as well as in the context of international comparisons, using indicators based in part on those developed by the IMF for measuring the financial stability of the insurance sector.

The conclusions reached on the basis of the knowledge and experience that has been accumulated globally are that the systemic risks in this sphere derive from three main factors: quasi-banking activities in insurance, such as saving in life insurance plans together with assured return, which exposes them to interest-rate, credit, and liquidity risks, just like the banks; business and ownership ties between banks and insurance firms, which create contagion between them; and regulatory and supervisory weakness (henceforth, regulation) in the insurance sector.

In Israel the quasi-banking activities conducted by insurance firms consist primarily of saving in the framework of old assured-return life insurance plans, albeit to a limited extent. There are also cross-holdings between banks and insurance firms, again to a limited extent. By contrast, regulation in the insurance sector in Israel, as is the case in many countries is not sufficiently strong - despite a marked improvement in the last few years - giving rise to implicit systemic risk. One of the expressions of this is under-reporting and lack of transparency hampering the assessment of exposure and risks.

A prominent feature in Israel is the fact that general and life insurance activities are undertaken within the same company, a feature which is not customary in most other countries. This situation creates a potential for contagion from general to life insurance, although the former embodies hardly any systemic risk in itself.

The return on equity of the insurance industry in Israel is high by international standards, because the capital adequacy requirements would appear to be too low.

1. INTRODUCTION¹

Interest in the subject of financial stability has grown in the last few years. Concern with this sphere consists of analyzing the financial stability of sectors within the financial system,² and of diagnosing the risk of contagion—in both directions—between them and other sectors within this system, chief among them the banks. Research into this subject is just beginning to be undertaken. Analyzing each sector separately irrespective of any connection with systemic financial stability has focused to a great extent on banks, both on the part of economic institutions (e.g., central banks) and by the academic world, while scant attention has been paid to other sectors, particularly insurance. The purpose of this paper is, therefore, both to enhance understanding of the insurance sphere in and of itself and to gain a better grasp of the link between it and systemic financial stability.

The present study examines the insurance industry with regard to financial stability, seeking to ascertain whether and in what way difficulties in the industry can affect other sectors within the financial system, and vice versa. The insurance industry is a financial intermediary which holds a large part of the public's long-term savings, and hence influences the financial markets and is affected by them. In addition, it takes on risks, thereby enabling the public to disperse risks. Thus, difficulties in this sector can have an adverse impact on the saving public and on risk dispersal.

We first review the literature and the experience of other countries, providing the fundamental perception regarding the vulnerability of the insurance industry, the conditions whereby its stability may be undermined, and the dangers of contagion in the various aspects of the financial system which have assumed increasing importance in recent decades, such as the institutional structure, structural exposure, accounting reporting, and the regulatory aspect—sometimes in comparison with the banks. International comparisons of certain aspects of the institutional, structural, and business conditions may be made only partially because of lack of data. After the review of the literature and international experience, we examine the vulnerability of the insurance industry in Israel and the conditions for making it stable. Pension and provident funds are not included in the present study.

The insurance sector includes general insurance, life insurance, and reinsurance. In the economics literature life insurance sometimes includes the various types of pension insurance (including pension funds). In some countries the distinction between life insurance and pension funds is not clear-cut, while in others there is separate supervision of pensions and insurance.

The structure of the paper is as follows: the second section presents the approach of the international literature to the insurance industry and the question whether insurance companies imperil systemic financial stability. That section deals with the differences between the insurance and banking industries in exposure to risks, with focal points of risk

¹ I would like to thank Yair Chaim for helpful discussions and comments, Avia Spivak and the economists of the Bank of Israel's Financial Stability Area for important remarks in preparing this paper; I am grateful to the Commissioner of Insurance, Ayal ben Shlush, the insurance stability team in the Ministry of Finance, and Rami Yosef for comments on the draft of this paper. Special thanks go to Ya'akov Berlinkov and Roi Levy for help in data processing, and to Ruthie Zakowitz for editorial assistance.

² The financial system includes all the financial intermediaries: the banks, nonbanking financial institutions—pension funds, insurance firms, and provident funds—and other intermediaries, such as mutual funds and portfolio managers, as well as the financial markets and the payments and clearance systems. For a more detailed analysis, see Financial Stability Area, *Annual Report, 2003*, Bank of Israel.

in insurance, and with their effect on systemic financial stability, distinguishing between general and life insurance and examining the developments of the last ten years which increase systemic risks. To illustrate the risks, the reasons for them, and their effects on the financial system we present appendices describing two bankruptcy events, the first in general insurance in Australia and the second in life insurance in Korea. This section also illustrates the trend of increasingly close business and ownership ties between insurance and banking, and indicates several preconditions for stability in the insurance industry as well as for studying its systemic effects: 1. The structure of exposure of insurance firms, especially in quasi-banking activities; 2. The business/ownership connections between the insurance industry and the banking system; 3. Supervision, including regulation, and stability requirements. The analysis in this section makes it possible to set out conditions for assessing the stability of the industry in Israel, and to examine the various possible exposures discussed in the third section. The third section is also concerned with the structure of the industry in Israel, with information, and with the ability to assess the risks on the basis of existing financial statements. The fourth section is devoted to the summary and conclusions.

2. THE INSURANCE SECTOR: THE ANALYTICAL FRAMEWORK AND INTERNATIONAL EXPERIENCE

2.1 General

The unique contribution of the insurance industry to growth lies in reducing risks to economic agents in the economy, namely, households and firms; it thus encourages them to implement transactions (some of which would not have been undertaken without insurance), and lowers the cost of the transaction. It has been claimed that insurance even reduces risks throughout the economy by providing an incentive to the industry to measure and manage risks as well as by acting to reduce them. A further contribution of the insurance industry is in financial intermediation, whereby it improves the overall allocation of sources; as a financial intermediary its main advantage lies in the ability to obtain long-term sources through life insurance (in contrast to the banks, which obtain short-term sources), and these sources increase the potential for long-term investment in the economy and ease the burden of pensions on the public purse. Global data show a positive correlation between the size of the insurance industry and per capita GDP (Table 1).

The supervision of insurance is in effect the result of market failure; it is therefore reasonable to suppose that in the absence of supervision the extent of insurance coverage would be smaller than that required for the purposes of economic activity. There are several reasons for this: insurance products are more complex and less standardized than bank deposits, and the assessment of liabilities in insurance is more complicated. Asymmetry of information is also greater in insurance, and it takes a very long time to settle claims. For the same reasons, it would seem, the regulation of insurance usually places greater emphasis on the liabilities side, i.e., preparing reserves for settling claims (protecting consumers), than on the assets side. This is not the case in banking regulation, where the emphasis is rather on the assets side (primarily credit). It appears to be a global phenomenon (also found in developed countries) that insurance regulation is weak and less rigorous than banking regulation, and also that data are less readily available. Although the

operational independence of regulation is one of the basic principles of the IAIS (The International Association of Insurance Supervisors), in many countries—including developed western ones such as the US, Canada, and Germany—the Supervisor is subject to the government.

Table 1: Gross Premiums in Insurance as Percentage of GDP in 2000, an International Comparison

	Total	Life insurance	General insurance
OECD	9.1	5.3	3.7
EU15	9.2	6.0	3.3
NAFTA	10.0	4.9	5.1
High-GDP OECD countries			
Luxembourg	30.4	26.5	3.9
Japan	13.2	10.0	3.2
US	10.6	5.2	5.4
Low-GDP OECD countries			
Poland	2.9	1.0	1.9
Slovakia	3.1	1.3	1.8
Turkey	1.5	0.3	1.3
Israel			
Insurance companies	5.8	2.9	2.8
Insurance companies +pension funds	7.4	4.6	2.8

Source (except Israel): Udaibir, Nigel and Podipiera (2003).(henceforth UNP)

Traditionally, the insurance sector has been perceived as a stable segment of the financial system. The main differences between banks and life insurers as financial intermediaries are: 1. In insurance the liabilities are not liquid, as the sources obtained are long term, while in banking the sources are short term, and so the liabilities are liquid; 2. The asset portfolio in insurance is usually more liquid than that in banks because in insurance a significant proportion of uses is in tradable securities while in banks most uses consist of credit extended. The high liquidity ratio (liquid assets vis-à-vis liquid liabilities) in insurance and the complexity of the product have traditionally been regarded as factors which prevented a run on insurance firms even when there was a run on the banks. Traditionally, too, the subject of assuring savers' return, which is a quasi-banking activity, was not a major concern; this was apparently because until the early 1970s interest rates were fairly constant and hence exposure to interest-rate risks was not very great, and in many cases this was also the result of government intervention, which prevented the insurance firms' exposure to this kind of risk.

However, various episodes showed that the insurance companies were not immune to crises. The literature is scanty and empirical evidence is thin on the ground, but what there is shows that bankruptcies in life insurance have systemic potential. Crises in life insurance with systemic effects occurred in the last two decades in the US, Japan, Canada, Australia,

Ireland, Korea, and Jamaica.³ Most of the bankruptcies in life insurance occurred after financial deregulation and economic prosperity, which increased exposure, and sharp price fluctuations in the securities markets, which realized exposure risks. In addition, there was a global phenomenon of weak regulation in insurance (far more so than in banks) which did not prevent a rise in exposure.

The process which occurred was more or less as follows: 1. The deregulation of the 1980s increased competition, causing insurance firms to market quasi-banking products, i.e., to guarantee a return to insured parties and to depositors, even on short- and medium-term deposits. This increased the risk that derived from both the commitment to guarantee return (interest-rate risks) and insurance firms' liquid liabilities. The need to obtain high and competitive returns, alongside the optimism that accompanied economic prosperity, led to increased investment in risky assets—securities (including shares and junk bonds), real estate, and credit to various sectors—and this made the companies more vulnerable to the business cycle; 2. Economic shocks caused volatility in the securities markets, thereby causing low returns and the loss of investments and credit; the latter meant that insured parties did not receive their assured return, often leading to bankruptcy; 3. Contagion to the banking system stemmed from joint ownership/holdings with the banks (bancassurance) as well as from joint business activity, which also expanded under the process of deregulation and globalization (see below). Contagion could also have been caused by the greater severity of the shocks in the financial market. Note, too, that quasi-banking activities in insurance (short-term, return-assured deposits vis-à-vis risky uses) makes the problem of insurance similar potentially to that of banks (liquidity risks and hence fear of a run). The direction of causality of a systemic crisis—from insurance to the banks or from the banks to insurance—is not always clear from the existing examples. Thus, in Korea and Japan the crisis encompassed both sectors, and it is not clear which one was first. In Jamaica the causality of the systemic effect went from insurance to the banks. In the US the crisis in insurance in 1991 did not spill over to the banks, but this was due to a great

³ For details, see appendix regarding Australia and Ireland (in general insurance) and Korea (in life insurance). Further examples may be found in Udaibir, Nigel and Podopiera (henceforth UNP) (2003), pp. 19—20; a few examples follow:

Japan: the liberalization of the 1980s enabled companies which were not insurance firms to provide insurance services, and also enabled insurance companies to expand credit to other segments. This increased competition in the spheres of insurance and credit, and led the life insurance firms to guarantee return. However, the stock market crash, the decline in interest rates, and crises in credit repayment by borrowers prevented the promised return from being attained. In 1997—2001 eight medium-sized life insurance firms collapsed. Bank contagion was the result of joint holdings.

The US: in 1991 nine large life insurance firms collapsed, following a similar process; inflation and interest rates soared in the late 1970s, and life insurance became less attractive because the liberalization process enabled financial institutions to offer investment products with a higher return. In response, the life insurance firms also offered products with an assured return (5-year GICs), but the uses were risky assets. The collapse of the mortgage market and the stock market, together with the steep decline in bonds in general and junk bonds in particular in the late 1980s, prevented the insurance firms from meeting their obligations.

Jamaica: the processes were similar and began with liberalization in the 1980s. But this example is interesting for three reasons: the contagion effect was extensive because insurance firms and banks were owned by the same conglomerates; there was arbitrage of regulation, because regulation was separate for banking and life insurance; and there was monetary restraint. This situation, together with growing competition between the banks and insurance, created assured-return quasi-bank products in insurance. UNP (2003) note that the crisis began with the monetary restraint of the mid-1990s, which caused asset prices to fall, so that the insurance companies were unable to pay the return they had guaranteed. In response, these firms withdrew deposits from the banks in that conglomerate, and this gave rise to a liquidity crisis in the banks.

extent to the Glass-Steagall Act, which established partitions between traditional banking activities and investment banks (and insurance). It may be assumed that even if the causality direction was not from insurance to the banks, the marketing of quasi-banking products in insurance extended the systemic effect.

2.2 International standards of regulation in insurance

The regulation of insurance is weaker than that of the banks all over the world.⁴ In insurance there are no agreed standards of regulation, such as the Basle regulations for the banking system, for example capital adequacy, risk dispersal by means of reinsurance, and the assessment and management of risks. Insurance regulators also have less independence than banking supervisors, and the data are more limited and less accessible. The lack of quantitative and qualitative standards (e.g., in the area of capital adequacy in insurance) and in reporting exposures hampers the assessment and measurement of risks. Differences in institutional and business structures between countries (e.g., government backing for certain products) makes it difficult to undertake international comparisons and requires that each country be examined separately as regards the structural aspect as well as with respect to regulation and supervision. Against this backdrop, the expansion of quasi-banking activity in insurance in the last decade, and the greater ownership-business connection between insurance firms and banks, underlines the importance of strengthening the regulation of insurance and increasing the coordination between the regulatory authorities (for the implications of weak regulation for financial crises, see note 3 and Appendices 2 and 3).

In recent years the IAIS has drawn up several principles (the first were prepared only in 1998), but these have not yet been implemented in practical terms (see Appendix 1). In 2003 the IMF (International Monetary Fund) also pointed to several indicators of financial stability in the insurance sector, in two spheres: the first was that of capital adequacy (as a cushion for absorbing shocks) and profitability; the second was indicators of vulnerabilities (risk assessment), including the quality of risks, market risks, liquidity risks, reinsurance and actuarial issues, and managerial/operational efficiency (Table A.2). Note at this juncture that despite the contagion effect deriving from the increased business-ownership connection between the banks and insurance, the principles formulated by the IAIS do not refer to these relationship issues but rather, stress the need for closer regulation and greater transparency (Appendix 1). The indicators devised by the IMF in 2003 make no reference to the business-ownership connection and also fail to set a benchmark for international comparisons.

Nevertheless, the above indicators, together with the principles of the IAIS, have already made a considerable contribution to delineating the conception of supervising and stabilizing insurance. Thus, for example, the delegations of the Financial Stability Assessment Program (FSAP) use the IAIS's principles to assess insurance stability.

⁴ Banking may well require closer regulation than insurance because a central task of the banks is in the payments and clearance system of the economy. However, the developing connection between the two sectors requires tightening the regulation of insurance to avoid contagion to the banks.

2.3 Focal points of risk in insurance

There are three types of risk for insurance firms: technical risk; credit (assets), market and liquidity risk ; and other risks (e.g. operating, managerial, and control structure risk).

Technical risks: these are risks deriving from the nature of insurance, namely, from the acquisition of risks, and include inaccurate actuarial calculations and errors in the parameters which determine the actuarial calculation (mortality and sickness rates, future earning capacity, etc.); other such risks include those that have not been anticipated or properly understood; failure to disperse risk or to adequately reinsure; and catastrophic events. The meaning of all this is that the premium taken is too low or the commitment too high. Note that traditionally, the tendency of the regulatory authorities has been to stress the risks on the liabilities side, which in effect stem from technical risk. This is in contrast with the banks, where the regulatory emphasis is on the asset side (credit risk).

Many insurance firms have collapsed because of technical risk, especially when catastrophes have occurred. Suffice it to mention the fact that the operating principle of insurance is probability and dispersal (the principle of statistical independence); this principle reduces the risks confronting the individual in normal circumstances, but does not necessarily function in catastrophes, when the risk-dispersal component is irrelevant. The literature also raises doubts about the possibility of insuring against catastrophes and the ability of insurance to absorb huge losses (see Eden and Zuckerman, 2003). There are even countries in which there is no insurance coverage for catastrophic events.

Credit, market and liquidity risk: credit (asset) risks are usually less prominent in investment portfolios than in banks, and are sometimes even negligible, because most credit is not direct but via bonds, including negotiable bonds (and market discipline reduces these risks). In general, however, it may be said that the consequences of the realization of credit risks intensify as the quasi-banking activities of insurance increase; thus, in Japan and Korea, for example, the share of direct credit in the total asset portfolio (not by means of bonds) was high (27 percent), and was one of the main factors behind the crises (Table 3b).⁵ In analyzing *market risks*, exposure also depends on the risks of the liabilities (both sides of the balance sheet are important). Thus, in the case of an assured-return policy, the firm is exposed to market risks, whereas if no return is assured, it is the policy-holder who absorbs the fluctuations, so that the firm is not exposed to risk (although its reputation may suffer).⁶ In addition, even when there is no exposure to market risks and the return is assured, there is exposure to interest-rate risk because of duration differences between assets and liabilities. Some *liquidity risks* are associated with uncertainty arising from the frequency, intensity, and timing of claims. Nonetheless, they are weak compared with liquidity risks in the banking system because of the differences in characteristics between insurance and banking: 1. While the withdrawal of deposits from banks does not involve high costs, withdrawing life insurance savings leads to the cancellation of the insurance contract, involving a large loss because of the long term characteristic of the savings (as the value of the revenue is lower than its adjusted value), and the loss in risk coverage (coverage in an alternative policy in a different firm may involve a higher

⁵ According to data for 2000, the share of direct credit (excluding mortgages) in financial and non-financial companies (not by means of bonds) in Germany was 46 percent, giving rise to serious disturbances in the insurance and banking sectors.

⁶ Exceptions are combined events when catastrophes occur and cause markets to fall, such as the terrorist attacks on the Twin Towers in New York. In that case the liabilities (technical risk) of the insurance firm obliged it to provide coverage, but the value of the assets covered plummeted.

premium, e.g., for reasons of age). 2. Withdrawing a policy from an insurance firm involves a lengthy process until any money is received. These reasons motivate policyholders to ‘think twice’ before withdrawing a policy. This has given rise to the traditional view that there is little risk of bankruptcy contagion in the insurance industry.

2.4 General insurance and financial stability

There is also a qualitative distinction between *general insurance* and *life insurance*. The life-insurance premium includes a risk component, and a (long-term) saving component. In general insurance, on the other hand, the contract and the premium are solely for the risk component, and this is usually for one year at the most. This means that the premium is not a withdrawable deposit but rather the purchase of insurance, which is also gradually eroded by the end of the period, and the firm’s liability is realized only if an insurable incident occurs; hence, the damage to a policy-holder in the event of the collapse of a general insurance firm is not great. Notwithstanding, general insurance is more exposed to catastrophic risk. For these reasons, if a general insurance firm that operates in the traditional fashion and without any connection to the banking system collapses, this does not jeopardize financial stability even though it has an adverse effect on economic activity because of the loss of coverage capacity that accompanies it (including in the insurance that accompanies various kinds of bank credit, such as mortgage and freight).⁷ In almost all the recent cases observed, it transpires that the collapse of a general insurance firm did not by itself have a systemic effect; on the other hand, the collapse of a life insurance firm, or of a general insurance firm which is connected with the banking system, did endanger the stability of the financial system. To illustrate this, Appendix 2 presents two instances of the collapse of a general insurance firm. In the first case the collapse was of the ICI firm in Ireland in 1984, which gave rise to a run on the parent bank. The second instance was the reverse: the HIH general insurance company in Australia collapsed in 2001, and this did not cause a financial crisis in spite of its enormous size—it was the second largest—due inter alia to the weak connection with the banking system (nevertheless, the collapse caused harm in the real economic activity sphere). Additional reasons for this cited by the Australian reports were the soundness of the banking system at the time and the depth of the financial markets—two elements which were able to absorb the massive withdrawals.

2.5 What danger does the collapse of a life insurance firm represent for financial stability?

Life insurance is closer than general insurance to banking activity because it involves financial saving. The management of the public’s savings is based on trust in the insurance company and the supervisory authority, and if this trust is undermined it can cause a run. This general contention is valid not only with regard to insurance firms.

As far as life insurance companies are concerned, the main danger to their stability occurs if the return to savers is assured, while the coverage is in a risk-bearing portfolio, i.e., in

⁷ General insurance also incorporates compulsory insurance, such as that for vehicles, so that the collapse of a general insurance company could impair the implementation of the law. In addition, general insurance maintains long tails of pending claims which entail extensive financial coverage, so that the possible damage to a policy-holder if a bankruptcy occurs could be great; nonetheless, this does not represent a danger to systemic financial stability, as the claims are pending and their value and date of implementation is not known, hence they are not part of the balance of assets and liabilities of the individual.

the case of quasi-banking activities in insurance, which create exposure. This is illustrated by the case of Korea presented in Appendix 3; the life insurance sector obtained medium-term deposits and assured a return, and used them for credit to the business sector in the form of bonds or loans. The crisis, which apparently began when many business firms were unable to repay loans in 1997, triggered a major crisis in the life insurance industry (and in the general insurance industry), not only in the banks. The weak regulation and government loan guarantees, which apparently created moral hazard, were also causes of the crisis.⁸

The collapse of a life insurance firm affects the stability of the financial system (contagion) via the growing connection between insurance and the banks (ownership, mergers, and joint business ventures), and between it and the financial markets. The principal danger is by means of the growing link with the banks; thus, for example, the collapse of an insurance firm can undermine trust in a bank that is owned by the same family, as well as causing a run on the bank and contagion. A similar danger is involved in joint activities with banks, e.g., as a result of massive withdrawals of deposits from banks. It can be said that under a given regulatory system, the danger of contagion is greater the closer are the ownership-business ties between banks and insurance firms (and the more extensive are the insurance company's quasi-banking activities). Another danger stems from arbitrage in regulation, when banking and insurance are regulated by separate authorities, with different basic requirements. Thus, for example, the banks can transfer poor-quality credit—which impairs capital adequacy and prevents adherence (to the Basle requirements—to the insurance sphere, where there are no agreed capital adequacy requirements, and the regulatory body pays less attention to the asset side than to the liabilities (reserves) side. One of the expressions of this arbitrage appears to be the credit derivatives which have developed throughout the world in recent years.⁹ Consequently, regulation that is better adapted and tighter (or the unification of regulatory authorities) is required, as is transparency with regard to financial risks.

A systemic effect transmitted by means of the financial markets stems from the possibility of massive sales in the capital market due to the collapse of an insurance company and a run by savers, thereby giving rise to contagion to other insurance companies and banks, and sometimes also to a currency crisis.¹⁰ Beyond the importance of the depth of the domestic financial markets and the share of insurance in these markets, which affect volatility, several countries have regulatory problems regarding the insurance investment portfolio, which requires a minimum marginal profit, for example; this situation could accelerate sales of stocks/bonds at a time of sharp price falls, thereby exacerbating market volatility (see Hausler, 2003).

From the above regarding general insurance and life insurance it transpires that the collapse of a general insurance firm which has no ownership-business connection with banks does not threaten systemic financial stability, whereas in life insurance the contagion

⁸ Note no. 3 gives further examples of crises in insurance which were not accompanied by a banking crisis, e.g., in the US. For additional information, see UNP (2003).

⁹ An expression of this is the huge increase in the market for credit derivatives in the eurozone since 2001. Thus, for example, credit derivatives of the CD type, which account for 47 percent of the credit derivatives market, rose from \$ 0.5 billion in 2001 to \$ 5.5 billion in mid-2004. The banks are the predominant issuers, and the insurance firms, also outside the eurozone, are the predominant buyers. Thus, risks are transferred from banking to insurance.

¹⁰ Contagion giving rise to a currency crisis also depends on the exchange-rate regime and the extent of involvement of foreign investors in the financial markets.

effect operates. When general insurance and life insurance activities are combined, as is the case in Israel, the collapse of a general insurance company can also affect life insurance, and hence the financial system (see below).

2.6 Several cases of an increase in joint activity between financial sectors

The increase in the business-ownership connection between banking and insurance (as well as with securities firms and other financial entities) in the last decade was a major cause of systemic contagion (see, e.g., UNP, 2003; IMF, 2003). Below are a few instances of the growth in such ties. Tables 2a and 2b give examples of mergers and acquisitions of financial companies in the 1990s in thirteen countries.¹¹

Table 2a: Mergers and Acquisitions of Financial Firms in the 1990s in 13 Countries, by Financial Group (Purchased Companies)¹								
	Total mergers and acquisitions		Share in volume (%)			Share in quantity (%)		
	Volume (\$ bill.)	No. of transactions	Banks	Insurance	Securities and others	Banks	Insurance	Securities and others
1990	38.00	324	81.7	13.3	5.1	61.4	16.7	21.9
1991	38.20	549	82.6	8.9	8.5	56.6	16.2	27.1
1992	38.36	616	69.5	23.5	7.0	61.9	16.6	21.6
1993	65.28	682	45.5	26.0	28.5	67.6	12.8	19.6
1994	53.40	773	64.7	21.5	13.8	67.9	10.3	21.7
1995	151.61	856	89.9	4.6	5.5	62.1	14.4	23.5
1996	96.98	842	47.8	34.0	18.2	57.0	17.7	25.3
1997	292.97	901	63.9	18.8	17.4	59.3	16.1	24.6
1998	495.12	874	75.3	18.0	6.6	61.0	16.7	22.3
1999	353.17	887	76.5	12.6	10.9	55.0	11.6	33.4
Total	1,623.09	7,304	71.9	16.9	11.2	60.8	14.8	24.4
¹ Including four categories: within the country in the sector and outside it, and the same classification abroad; for more details, see note 9 in text.								
Source: BIS (2001), <i>Report on Consolidation in the Financial Sector</i> ; Group of Ten, IMF and OECD, January, pp. 32-34, 333-338.								

The data for this analysis is taken from the Group of Ten (2001), in which the financial firms are divided into three sectors: banks, insurance, and securities and other companies. Table 2a shows that the phenomenon of mergers and acquisitions in the financial sector encompassed all the sectors. There is also an upward trend in the volume and quantity of transactions, at least when comparing the first and second half of the 1990s. There were 7,304 transactions in which companies were bought, to a total value of \$ 1.6 trillion, the main share of which was of the banks—about 61 percent of the transactions and 72 percent

¹¹ Australia, Belgium, Canada, France, Germany, Italy, Japan, Holland, Spain, Sweden, Switzerland, the UK, and the US. Mergers and acquisitions are defined as obtaining control (over 50 percent) after the transaction, and the minimum transaction is at least 5 percent of one party to the transaction (before 1992, \$ 1 million). Volumes of activity are in billions of current dollars. The financial firms are defined as banks, insurance firms, and securities/other companies as follows: banks—commercial, bank holding companies, credit institutions, mortgage banks/brokers, and savings and mutual savings banks; insurance—including life insurance and general insurance; securities/other companies—including investment banks and securities companies, and other financial firms, such as currency exchanges.

of the volume. The insurance sector accounted for 15 percent of the transactions and the volume, with a total of 1,078 transactions amounted to \$ 275 billion.

In order to indicate the extent to which insurance companies bought banks and vice versa, Table 2b classifies total mergers and acquisitions by industries as well as by acquiring and target companies. The table shows that cross-sectoral purchases by the insurance sector amounted to \$ 124.8 billion. From the data it is not possible to ascertain how many of the purchases were of banks, but because ‘securities and other firms’ were bought for less than this amount—a total of \$ 56.5 billion—we can conclude that the banks were bought for at least \$ 68.3 billion, i.e., at least 55 percent of total cross-sectoral purchases by insurance firms were of banks.

The same method of calculation indicates that the banks bought insurance firms for at least \$ 2.3 billion (the difference between cross-sectoral purchases by banks amounting to \$ 58.9 billion, and the ‘securities and other firms,’ which were bought to a total of \$ 56.5 billion). This would seem to be a small amount, which does not fully reflect the picture, but it is consistent with other data shown by the table: as purchasers, the share of cross-sectoral purchases in total purchases was only 5.4 percent in the banks compared with 34.2 percent in insurance, i.e., insurance predominated in cross-sectoral purchases. On the other hand, as companies purchased by another financial sector, the share of the banks was 35.8 percent, compared with 14 percent in insurance, i.e., banks predominated as target firms by another financial sector.

Sector	Acquiring companies				Target companies			
	Volume (\$ bill.)		No. of transactions		Volume (\$ bill.)		No. of transactions	
	Total	Cross-sectoral	Total	Cross-sectoral	Total	Cross-sectoral	Total	Cross-sectoral
Banks	1,085.38	58.9 (5.4%)	4,423	531	1,166.49	158.16 (35.8%)	4,444	646
Insurance	364.96	124.78 (34.2%)	1,182	213	274.68	38.42 (14.0%)	1,078	219
Securities and others	205.70	77.80 (37.8%)	2,029	715	181.92	56.46 (31.0%)	1,782	511
Total	1,656.04	261.48	7,634	1,459	1,623.09	253.04	7,304	1376

¹Transactions undertaken both within the country and abroad.

Source: Table 2a.

Further interesting data are indicated by the table, namely, that ‘securities and other firms’ also purchased banks, to the amount of at least \$ 39.4 billion, which is more than half their total cross-sectoral purchases. This also has implications for systemic financial stability because of the relatively weak regulation in the ‘securities and other’ industry.

Mergers and acquisitions are part of the process of consolidation which also includes joint ventures and strategic alliances, as shown in Table 2c. These also increased in the course of the decade, but it is not possible to discern from the data whether these are within- or cross-sectoral, and no distinction is made between the three financial groups—banks, insurance firms, and securities and other companies; in view of the trend and the

business atmosphere it may be assumed that the insurance sector was involved in this activity.

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Total
Within country	46	59	73	82	133	220	92	223	434	435	1797
International	73	90	50	47	78	106	73	121	284	286	1208
Total	119	149	123	129	211	326	165	344	718	721	3005
¹ 13 countries, see note 9 in text.											
Source: Group of Ten (2001), p. 403.											

Additional data attesting to the activity of banking corporations in the insurance sphere (and hence to the potential of contagion) are presented in Table 2d. The table shows the extent of separation between banks and insurance in 44 developed and developing countries (in 2002), and indicates that insurance activity is completely forbidden to banks in only seven of them (including Israel). In the other countries insurance activity is permitted, with certain restrictions, and in five countries full and direct insurance activity is allowed.

Full and direct activity permitted		Hong Kong, New Zealand, Poland, France, Sweden
Some restrictions, but activity permitted	Full activity permitted, solely via subsidiaries or affiliates	Australia, Austria, Belgium, Brazil, Canada, Denmark, Germany, Holland, Indonesia, Japan ⁵ , S. Korea, Luxembourg, Mexico, Norway, Portugal, Singapore, Spain, Switzerland, Uruguay, UK, Venezuela.
	Full activity permitted, but limited to given percentage of equity of bank/insurance firm	Greece, Italy, S. Africa,
	Activity permitted only as agency or broker	Chile, Czech Rep. ² , Finland, Ireland, Philippines, Romania, Turkey, US ⁴
Activity absolutely forbidden		Argentina ¹ , China, India, Israel ³ , Pakistan, Peru, Russia
¹ Activity permitted only in pensions and via affiliates. ² Banks may serve as insurance agents; other activity permitted via subsidiaries. ³ Mortgage banks sell life and home insurance against mortgage loans. ⁴ Banks operating in various US states (national banks) and their subsidiaries are generally restricted to activity as agents. Underwriting activity is permitted to nonbanking subsidiaries of financial holding subsidiaries (FHSs). ⁵ There are also some activities that banks are permitted to undertake directly.		
Source: Schiffenbauer, Lavi (2003), based on <i>IIB International Survey</i> (2002).		

The study undertaken by the Group of Ten (2001) presents several additional conclusions:

1. In international mergers the distribution between banks and insurance firms was similar, compared with the predominance of the banks in domestic mergers.

Note that this situation has implications for the stability of the insurance sector given that regulation is relatively weak, especially with respect to international firms, as these are not subject to the authority of the domestic supervisor.

2. In the US and Japan the mergers mainly involved banks, apparently due to regulatory restrictions, compared with a relatively high proportion in insurance and securities firms in Europe.
3. The result of consolidation is that there is also contagion from nonbanking financial firms, due inter alia to the increase in mutual dependence of financial entities within the organization (loans between entities, and activity between them in securities and derivatives). The trend of increased consolidation can also serve to weaken market discipline because of a) the increased interdependence of entities within the organization, b) increases of complexity which hamper risk assessment, and c) moral hazard stemming from size. On the other hand, note that consolidation also reduces risks, due to the benefits of dispersal (chiefly geographical), reduces costs, and increases efficiency. Consequently, the net result is not clear (similar claims are presented in Appendix 4 regarding the abolition of the Glass-Steagall Act in the US).
4. The main reasons for the rise in consolidation were cost savings and increased revenue. The forces behind this are technological improvements in knowledge and operating, deregulation, and the globalization of the financial markets. The forces preventing this are regulation and the fact that business cultures vary between countries (see Group of Ten, 2001, p.3).

2.7 Interim conclusion

The dangers to the stability of the insurance industry and of contagion to the financial system grew together with the processes of deregulation and globalization in the 1990s. In general insurance activity, which has no ownership connection with the banks, there is no evidence of a risk to financial stability. The main risks are in life insurance activity, and in general insurance which have ownership connections with the banks. The main risk factors are as follows:

1. An increase in quasi-bank activity in the insurance sector—activity which assures a return to savers but is not guaranteed via assured assets—and hence increases structural exposure (to interest-rate, liquidity, and credit risks).
2. A rise in the business-ownership connection with the banks (and other financial industries), increasing the risks of contagion.
3. The regulatory system for insurance is significantly weaker than that for the banks. The insurance industry has no agreed international regulatory standard, such as the Basle regulations for banks. This situation makes it possible for exposure to be increased in insurance. In addition, reports to the Supervisor and to the public are more limited in insurance than in banking.

Note that although the increased connection between financial sectors in the last few years is one of the main reasons for systemic financial crises, it would appear that at a time of deregulation and globalization the tendency is not to halt this process but rather to reinforce the regulatory system: thus, the principles formulated to date by the IAIS do not relate to the issue of separating activities, but rather stress the need to strengthen regulation and transparency (Appendix 1); furthermore, the indicators presented by the IMF in 2003 do not relate to the business-ownership connection either (Table A.1).

The trend of removing barriers has even found expression in the US, which was formerly a bastion of separation, and the Financial Services Modernization Act of 1999 permitted the establishment of holding companies which were permitted to deal with a range of financial activities (e.g., in the sphere of investment banking and commercial banking), including underwriting and distribution in insurance. Appendix 4 reviews the developments within the US and outside it which led to this change. Although in the US the removal of barriers is between traditional and investment banking, this process is in line with the prevailing atmosphere expressing the advantages and disadvantages of these developments in the context of insurance, too. Supporters of the legislative change emphasized the lack of economic efficiency and artificial separation created by the Glass-Steagall Act of 1933, while its opponents noted the violation of market stability and meddling competition.

The results obtained from the discussion to date are that the trend of close business ties between financial sectors and the phenomenon of bancassurance, occurred, chronologically, before the research and the awareness in the last two years that this phenomenon jeopardizes financial stability.¹² At the present stage of globalization there is a dilemma between stability and efficiency, the latter appears to be prevailing, so that the solution which is emerging is to reinforce the regulation of insurance and increase awareness of the dangers to stability, rather than to separate banking and insurance. Note, too, that this tendency occurs even though insurance does not yet have agreed principles along the lines of the Basle regulations, and it will be a long time before they are attained. This may be due to an lack of internalization, as it is not long since the events of the last few years, and research on the subject is still in its infancy. Another reason is that the globalization process appears to be irreversible, and thus it is necessary to learn to live with it and learn how to benefit from its advantages, on the one hand, while minimizing the threats it embodies to financial stability, on the other.

In the general context of connections between financial sectors (universal banking), it has been claimed that in a world in which there are barriers the importance of the credibility of monetary policy and fiscal discipline has not been sufficiently recognized. Today, on the other hand, the significance of restraint and the credibility of policy is acknowledged and markets are efficient; these, together with stronger regulation, guarantee stability and facilitate efficiency to a great extent. Consequently, as is claimed by Blass and Grossman (1998), for example, in the context of countries in transition, these countries are more suited for separation as outlined in the Glass-Steagall Act than for universal banking, because the regulatory frameworks lack the appropriate experience, knowhow, and human capital, the markets are not efficient, and both fiscal and monetary discipline are lax. On the other hand, it may be claimed that while fiscal restraint and an efficient market are necessary conditions, they are not sufficient—especially since regulation is weak and there are no agreed international standards. Moreover, the reinforcement of regulation cannot ensure stability because it generally lags behind the dynamics of the market—in new financial instruments and in accounting ‘creativity.’ Note, too, that the enforcement of regulation depends to a great extent on the regulator’s personality and the local business culture.

¹² See, e.g., IMF (2003), *Financial Soundness Indicators*, Background paper; UNP (2003).

3. ISRAEL'S INSURANCE INDUSTRY: BACKGROUND AND ASSESSMENT OF STABILITY

The above discussion of principle and practice in the connection between insurance and systemic financial risks showed that in addition to the usual exposures, the main dangers in insurance stem from quasi-banking activities, the business-ownership connection with the banks, and the absence of international regulatory standards. We also reviewed the focal points of risk in insurance (technical, credit, and liquidity risk). In distinguishing between life and general insurance, we found that the threat to financial stability is from life insurance; in general insurance, when there is no ownership connection to the banks, no empirical evidence was found of a threat to financial stability, but disturbances within it were found to have real side effects. Furthermore, the ability of the financial system (the banks and the financial markets) to absorb shocks, also from general insurance, depends on its resilience at that time.

Against the backdrop of the preceding review, we now proceed to analyze the insurance industry in Israel and its implications for financial stability. We refer to the structural aspect of the situation in which both general and life insurance activities are conducted by the same insurance company. We examine the focal points of risk, relating to the IMF's indicators of insurance stability—among them capital adequacy and profit potential which determine the ability to withstand dangers—and compare some principles set out by the IAIS with regulation in Israel. The following discussion focuses on issues of structure and principle, as well as on the exposure indicated by our data.

The data are drawn from the financial statements (balance-sheet, profit and loss statement, and insurance business report) presented on the Ministry of Finance's capital market website in recent years, as well as on annual reports of the Capital Market Department of the Ministry of Finance between 1996 and 2003 (at the time of writing this paper the old pension funds had not yet been bought by the insurance companies, which occurred in September 2004, and the findings of the Bachar Commission had not yet been published. For the implications of these and other reforms for financial stability, see Bank of Israel, *Financial Stability Report, 2004*, Chapter 4, section 4).

3.1 Industry and regulatory background

The total assets of the insurance companies stood at NIS 148 billion at the end of 2003;¹³ two-thirds of them in life insurance. The share of insurance assets in the total assets of the financial system¹⁴ was 12 percent at the end of 2003, and this proportion has been rising constantly. Income from gross premiums amounted to NIS 31 billion, representing 6.3 percent of GDP, 44 percent of it in life insurance (see Table 3a).

In structural terms, the activity of most insurance firms in Israel is in both life and general insurance. Despite the conventional view found in the professional literature that there is no danger to financial stability from general insurance per se, the combination of the two spheres – life and general insurance - within one insurance company, as is the case in Israel, creates a situation in which the collapse of a general insurance business could erode its equity, thereby undermining the stability of the entire insurance firm.

¹³ Data for 2004 which were published shortly before this paper appeared indicate a similar picture.

¹⁴ For the definition of the assets of the financial system, see Bank of Israel, *Financial Stability Report, 2003*.

Table 3a: Insurance Firms in Israel: Selected Data, 1997-2003									
			1997	1998	1999	2000	2001	2002	2003
(NIS million, percent, end-2003 prices)									
1.	Total insurance assets	NIS	90.2	96.7	107.1	114.5	125.2	130.0	147.6
	of which:								
1.1	Life	%	63.5	64.1	65.2	65.4	65.5	65.0	65.4
1.2	Assured return	%	45.5	43.0	39.6	37.4	34.5	33.8	30.2
2.	Share in total assets of financial system	%	10.5	10.6	10.9	11.5	12.4
3.	Share of gross premiums in GDP	%	7.2	6.8	6.3	6.0	5.7	6.1	6.5
4.	Equity	NIS	3.8	4.5	5.6	5.6	5.4	6.1	7.8
5.	Net profit	NIS	0.5	0.8	1.7	1.1	1.3	1.0	2.6
6.	Income from gross premiums	NIS	25.9	26.5	27.1	28.1	30.4	31.1	31.3
	of which:								
6.1	From life insurance	%	43.6	45.7	47.2	49.1	48.7	45.0	44.1
6.2	From general insurance	%	56.4	54.3	53.1	50.9	51.3	55.3	55.9
7.	Income from investments	NIS	3.6	2.8	5.9	4.4	6.4	0.4-	11.0
	of which:								
7.1	Life insurance	%	77.8	75.0	79.7	72.7	71.9		79.0
7.2	General insurance	%	22.2	25.0	20.3	27.3	28.1		21.0

Source: Based on annual statements of Commissioner of Capital Market, Insurance and Savings, Ministry of Finance

Note that an international study of 89 countries undertaken by the IAIS showed that in more than two-thirds of these countries insurance companies were not permitted to deal in both life insurance and the other areas of general insurance. In addition, one of the basic principles of the IAIS prohibits dealing in both areas: according to this principle, a life insurer will not be granted a license to deal with other insurances, and vice versa, unless full separation between the two spheres of activity is proved. As will be shown below, in Israel the separation is not complete, e.g., in the capital sphere.

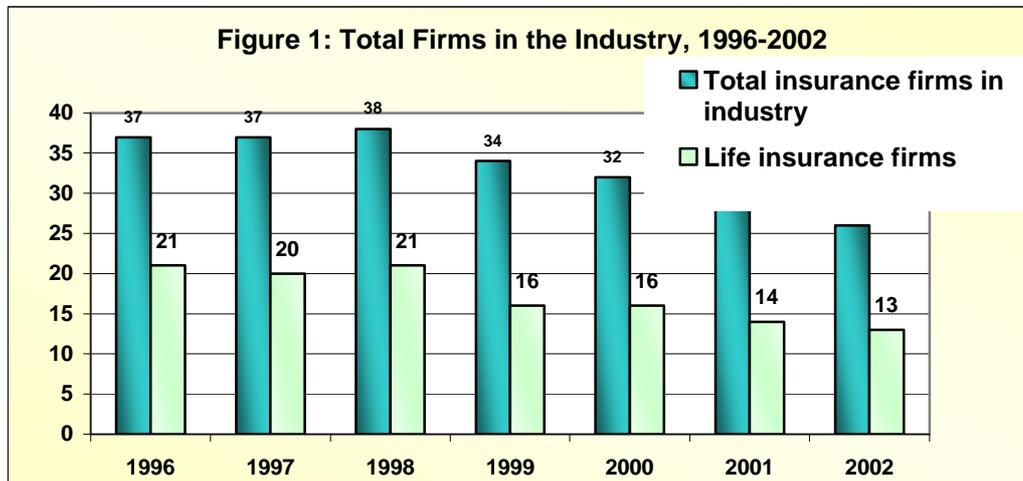
3.1.1 Concentration and the structure of the industry

Some 26 insurance companies were in operation in Israel in 2003.¹⁵ Three of them were government corporations which account for a very small share of total activity,¹⁶ and 13 of the companies also sold life insurance plans. These numbers have varied over the years as a result of purchases and acquisitions, which reduced the overall number of companies and increased concentration (Figure 1). Thus, for example, the five largest companies—Migdal, Clal, the Phoenix, Harel, and Menora—comprise 12 firms, and accounted for 95 percent of total life insurance premiums in 2003, compared with 77 percent in 1990, and

¹⁵ Excluding Avner and Karnit, which are vehicle accident insurers. Avner is a private company owned by all the insurance firms. After the introduction of the Controlled Competition Law, 5757-1997 in the vehicle sphere, its activity was gradually reduced, and ceased completely at the beginning of 2003. Karnit is a corporation which is not an insurance firm.

¹⁶ The government corporations are External Risks, Inbal, and Natural Disasters in Agriculture. The share of these companies of the total assets of insurance firms accounted for 0.5 percent in 2003.

93 percent in 1995. The three largest companies, Migdal, Clal, and the Phoenix, control 74 percent of the joint profit-sharing ('defined contribution' type) life insurance portfolio. Thus, the picture of the structure of the industry in life insurance attests to considerable similarity with the banking system; the Herfindahl-Hirschmann index of concentration in life insurance indicates 0.22, which also resembles that in the banking system.



The level of concentration is lower in general insurance. The share of the five largest groups in total general insurance premiums was 74 percent in 2002. General insurance includes about 15 spheres of insurance, and the level of concentration varies between them. Thus, for example, concentration is low in vehicle insurance (compulsory and property, excluding Avner and Karnit) while in sickness and hospitalization insurance it is high¹⁷ (Herfindahl-Hirschmann indices of 0.12 and 0.29 respectively).

The annual reports of the Commissioner of the Capital Market, Insurance and Savings began to appear only in 1996, and from them we learn that purchases, acquisitions, granting of licenses, and the cancellation of licenses are common and occur almost yearly. In the early 1990s there were two prominent instances of the collapse of insurance firms: Hassneh in 1992 and La Nacional at the end of 1994. In neither of these cases is there systematic documentation of the background and causes for the collapse.

3.1.2 Life insurance

Life insurance plans with pensions (at retirement) embody savings and technical risk components to differing degrees. Their members (policy-holders) are the private sector, and the number of active members and the amount of the premiums are connected with wages and conditions in the labor market. Withdrawal at term is possible either as capital or as pension, the former being the most common one. As regards the mobility of members between companies, the long-term contract and current instructions make this more difficult. There is a possibility of 'early redemption' at 'redemption value,' which is lower than the adjusted value, so that theoretically a run is possible.

There are two kinds of life insurance plans, 'assured return,' ('defined benefit' type) which has not been offered to new members since 1991, and 'profit sharing,' ('defined contribution' type) which was begun in 1991. The share of the latter plan has been growing

¹⁷ Comprehensive house and loss of property insurance lies somewhere between them, with a concentration index of 0.17 each, and in employers' responsibility it is 0.21.

steadily, and in 2003 it accounted for over half the entire life insurance portfolio (Table 3a). The plans differ from one another as regards risks to both insurer and insuree (see below).

3.1.3 Legislation and regulation

The Commissioner of the Capital Market, Insurance and Savings in the Ministry of Finance is responsible for regulation, in the framework of the Supervision of the Insurance Business Law, 5741-1981. The law does not define the role of the Commissioner, but his activity is intended to maintain the stability of insurance firms in order to enable them to meet their obligations to insured persons (see Report of the Commissioner for 2003, p.9). In addition to the Supervision Law, the insurance companies are subject to the Insurance Contract Law, 5741-1981.

Anyone who deals with insurance must have an insurer's license, which is issued by the Commissioner in consultation with an advisory committee set up under the Supervision Law. In addition, the spheres of insurance cited in the license are limited. Several insurance spheres require a specific permit from the Commissioner,¹⁸ and in life insurance a change in the terms of the plan is also required. The implementation of insurance plans in other spheres, or the introduction of changes in them, must be reported to the Commissioner. In the sphere of life insurance the Commissioner examines every plan; the Commissioner is also responsible for administering the subject of licensing (including examinations and qualifications) of insurance agents, as well as for supervising the propriety of their activities.

3.2 Asset portfolios in life and general insurance: an international comparison

Table 3b compares the distribution of asset portfolios in life and general insurance in Israel with those in developed and developing countries. The comparison is only partial because the liabilities side is not presented, and hence it is not possible to learn about the insurer's exposure. Furthermore, countries differ in their institutional arrangements. In Korea, for example, government backing was granted for credit extended via collateral, and that has stimulated the extension of credit and the assured yield to depositors. In Israel backing is given to earmarked bonds in assured return plans (and hence the table also shows the portfolio of profit sharing plans for Israel which are not backed by earmarked government bonds). Consequently, the comparison should be approached with caution.

The main message arising from the comparison is that there are marked differences between countries, reflecting inter alia the absence of international standards, and expressing the lack of a benchmark for international comparison. These differences are notable both within the group of developed countries (Germany, Japan, the UK, the US, and Luxembourg) and within that of developing countries (Korea, Poland, Turkey, and Israel). The comparison indicates that Israel's behavior is not exceptional.

In the life insurance portfolio there are common elements between countries as regards the real estate and mortgage items. As the table shows, the share of real estate is low and even negligible in most countries except Korea (about 9 percent) and England (about 6 percent). The mortgage component is also generally negligible, the exceptions being

¹⁸ These are: life insurance, compulsory vehicle insurance, property vehicle insurance, house and business insurance, and home-purchaser's insurance under the Sales (Apartments) Law, 5731-1971.

Germany and the US (about 10 percent). In the other items—shares and credit—there are marked differences: shares account for between one percent (Turkey) and 63 percent (the UK) of the investment portfolio. In Israel they account for a similar share as in Germany, Korea, and the US (about 6 percent); and the share in the profit sharing portfolio (about 14 percent) is similar to that in Japan (about 18 percent).

		Israel		Ger.	Korea	Japan	Lux.	Poland	Turkey	UK	US
Life insurance		Total	Def. Con. plans								
Real estate ¹		1.3	1.4	3.1	9.0	4.3	0.1	1.2	2.5	5.9	1.1
Shares ¹		6.1	14.3	6.6	5.1	17.5	46.2	2.9	0.9	62.6	6.8
Loans	Total	84.7	70.6	63.9	65.3	63.8	45.9	76.1	92.9	28.4	86.4
	Mortgages	3.8	2.4	10.2	8.4	...	0.0	0.7	0.0	0.1	11.5
	Bonds	61.0	46.0	7.4	28.9	37.7	45.8	73.4	92.3	27.3	69.9
	Other	19.8	22.1	46.3	28.0	26.1	0.1	2.0	0.6	1.0	5.0
Other investments		7.9	13.7	26.4	20.6	14.4	7.8	15.2	3.8	3.1	5.6
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
General Insurance											
Real estate ¹		0.1		3.7	12.1	5.4	2.6	3.9	23.9	2.1	1.1
Shares ¹		0.2		13.9	8.4	34.7	21.3	12.2	28.6	30.6	30.6
Loans	Total	88.5		56.5	52.1	44.7	57.8	55.4	44.9	62.2	60.5
	Mortgages	1.0		2.0	5.4	...	0.1	0.2	0.0	0.4	0.2
	Bonds	28.0		9.7	36.3	30.3	57.7	53.9	44.9	59.5	60.3
	Other	59.5		44.8	10.4	14.4	0.0	1.3	...	2.3	0.0
Other investments		11.2		25.9	27.4	14.6	18.4	28.5	2.8	5.0	7.8
Total		100.0		100.0							
¹ For Israel, real estate includes rights on land and fixed investment. Shares include investment in companies in which there is a holding.											
Source: Table 4, UNP (2003); for Israel: based on annual reports of Commissioner of Capital Market, Insurance and Savings in Ministry of Finance.											

When it comes to making a comparison between credit portfolios (excluding mortgages), matters become more complicated, as this item includes bonds for various terms to both the government and the private sectors; it also includes the ‘other loans’ item, which refers to direct credit to the business sector, which is high risk, and bank deposits, which are less risky. It is difficult, therefore, to make international comparisons of these items without going into details. Nevertheless, the data show that in Germany, Korea, and Japan direct credit is extended, whereas in the other countries credit is extended solely via bonds. UNP (2003) notes that in Japan and Korea many loans were extended to the business sector—direct loans and via bonds against which return was assured to depositors—and these were among the main causes of the crisis in the industry in 1998-2002 (see also Appendix 3). Germany is also notable for its large proportion of direct credit (46 percent), and the industry has been experiencing difficulties since the second half of the 1990s. In Israel the share of direct (‘other’) loans is similar to that in Korea and Japan (about 20 percent), but reflects primarily deposits in banks rather than loans to the business sector, and in most of them no yield is guaranteed to the insured persons, so that the risk embodied in them is lower than in those countries.

Another interesting point arising from the table is the comparison between life insurance and general insurance. The assets of general insurance should be for shorter terms than those of life insurance, and that is indeed the case in Israel. However, the distribution of the portfolio elsewhere does not reflect this situation; thus, for example, the proportion of shares in the portfolio is greater in most countries than that in life insurance. A similar phenomenon, albeit less severe, is also found in the real-estate portfolio. In Germany the share of credit portfolios (bonds and direct) is similar in life insurance and general insurance.

3.3 Assessment of risks and conditions for financial stability

The IMF set out a series of indicators for assessing the financial stability of life insurance (Table A2).¹⁹ On the basis of these indicators, global insights, and acquaintance with the insurance industry in Israel, a list of selected indicators has been constructed which are suitable for analyzing the financial stability of the industry in Israel. These are presented in Table A1 for 1996-2003. The main distinction between Table A1 and the IMF's list of indicators are: 1. It includes specific data about general insurance, as the two insurance spheres—life and general—are provided by the same company in Israel (in contrast with most other countries); 2. It includes variables which reflect business ties to banks and connections with the markets; 3. It does not include certain variables because no data is available for them—currency exposure, exposure to market risks (duration), and operating-managerial quality. The discussion focuses solely on the main variables.²⁰

3.3.1 Life insurance

In principle, it can be said that the insurance companies are not structurally exposed to interest-rate risk in life insurance (ignoring the duration gap between assets and liabilities): the assured return plans are backed by earmarked bonds, and in the profit sharing plans the risks (market and credit) fall on the members, i.e. they are balanced actuarially, by definition. Although in both kinds of plan there is a technical risk component, this is not transparent in the financial statements. In addition, there is an unhealthy trend towards increasing exposure in return assured plans, as described below.

In the original agreements regarding the return assured plans, the insurance companies were obliged to invest 86 percent of the portfolio in earmarked bonds (of the life-indexed kind), on which there was a real return of 5.2 percent.²¹ A member was guaranteed an annual return of 4.25 percent, so that the margin was 0.95 percentage points. The exposure of the insurance companies, in the original plans, was against the rest of the portfolio –14 percent—which was invested in the open market subject to the investment rules.²² Consequently, in structural terms, the insurance firms were not exposed.

However, the data indicate a declining trend in the coverage rate of earmarked bonds, to about 67 percent (rough calculation)²³ at the end of 2003 (Table A1). This decline may be explained (at least in part) by the early redemption of earmarked bonds, which started at

¹⁹ IMF (2003) *Financial Soundness Indicators: Background Paper*

²⁰ For the significance of the indicators, see UNP (2003), IMF (2003) in the preceding note, and also Table A2. A full analysis of the variables is beyond the scope of this paper.

²¹ There are old plans on which the return was even higher (e.g., 6 percent).

²² Such as large borrower exposure limitations and the ceiling on investment in shares and real estate.

²³ In order to make a precise calculation it would be necessary to deduct certain items (which are not entitled to coverage by earmarked bonds), and we are not in possession of the data.

end-1997: the higher yields in the market led the insurance firms to request early redemption, and the regulator acceded to this, motivated by the desire to expand the tradable market.²⁴ Since this yield is assured, the expansion of the free portfolio exposes the company to market and credit risks, thereby possibly imperiling financial stability. To illustrate this point, note that a simple calculation of the break-even point for interest alone shows that in the original situation (86 percent earmarked bonds) even a loss of 1.6 percent of the free portfolio would still cover the return to members, while according to the actual data (67 percent earmarked bonds), the minimum real yield required on the free portfolio is 2.3 percent. This means that there is a gap of 4 percentage points in the return on the free portfolio, between the original plan and the situation at the end of 2003. The return obtained in 2002 was lower still. Thus, what we have here is a quasi-banking activity which has the potential to undermine financial stability.

In addition to these plans, the insurance companies run their own plans which guarantee a return (without the backing of earmarked bonds) and in effect constitute quasi-banking activity involving exposure to credit and interest-rate risk. While at present the amounts in these plans are negligible, in the context of the reforms of the last few years,²⁵ which increase competition, and the lack of legislative clarity on this subject, these plans contain growth potential. As stated earlier, quasi-banking activity in insurance could jeopardize the stability of the insurance companies, because it entails risks similar to those faced by the banks—interest-rate, credit, and liquidity—but unlike the banks it is not subject to stringent regulation. Hence, it is essential to monitor the increase in this activity and its attendant exposures.

3.3.2 *General insurance*

In contrast with life insurance, in general insurance all technical risk are borne by the insurance companies, and these include catastrophes. Contracts are generally for one year, but there are claims with a ‘long tail,’ such as bodily injury in traffic accidents. The vehicle segment—compulsory, property, and third party—accounts for the largest share of general insurance activity—some 60 percent (in terms of premiums). The mobility of members between companies is greater in general insurance than in life insurance because in the former both the contract term and concentration are smaller. The introduction of the Controlled Competition Law (in 2003) and the cessation of the activity of Avner (at the beginning of 2003) should also augment efficiency, competition, and the mobility of members, although greater competition could increase the exposure of insurance companies, and hence require greater vigilance on the part of the regulator.

Another distinction between the two kinds of insurance is reinsurance, which is greater in general insurance (averaging about 25 percent for all spheres, compared with 5 percent in life insurance, according to gross premiums in 2003 respectively), reflecting the higher technical risks in general insurance (Table A1). An international comparison shows that Israel does not deviate from the average. Reinsurance is intended to transfer the risks of insurance firms and increase insurance capacity vis-à-vis catastrophes, serving as a quasi-capital reserve); this is also expressed in the calculation of the ability to meet the capital adequacy requirement, which is based mainly on the retained premium rather than on the gross premium. Thus, the greater the reinsurance, the lower will be the capital

²⁴ Early redemption is a one-way track, and there is no going back. The renewal of bonds that have been redeemed will be achieved via the tradable market in the future.

²⁵ See, for example, Bank of Israel, *Report of the Financial Stability Area, 2004*, Chapter 4.

requirements. The problem with capital substitution is that its use depends on the state of the reinsurers; these are situated abroad and hence are not under the jurisdiction of the domestic regulator (see also Eden and Zuckerman, 2003). Another problem is that in Israel there were no regulatory regulations or reporting requirements from the insured companies regarding the reinsurers (e.g., their quality, geographical distribution, and extent of risk relativity²⁶). This situation hampers an assessment of risks in insurance contracts and the determination of the appropriate capital adequacy.²⁷

Reinsurers are generally dominant globally in insuring credit risks, which could threaten stability. The method of supervising reinsurers varies between countries, and sometimes there is no supervision at all. The IAIS has adopted several minimum principles on this subject (since the end of 2002): reinsurers must be supervised; the supervisory approach must be global, and the supervisor must be in the home country of the reinsurer. The IAIS is also currently trying to organize international statistics of reinsurers which will also indicate transparency in their activities and unique risks.

Table 3c: General Insurance in Israel: the Share of Spheres in Total Gross Premium vis-à-vis Share of Reinsurance in Them (2003)			
Sphere	No. of spheres	Share of sphere in total premiums (%)	Share of reinsurance in sphere (%)
Total	15	100.0	24.3
Vehicle – compulsory and property ¹	2	52.7	5.6
Other	13	47.3	45.5
Spheres in which share of reinsurance is over 50%	8	26.6	66.3
¹ The shares in the premiums in the spheres are: compulsory vehicle (24.2 percent), vehicle property (29.1 percent).			
Source: Based on financial statements of Commissioner of Capital Market, Insurance and Savings, Ministry of Finance.			

Table 3c gives data on reinsurance in various spheres of general insurance in Israel: total general insurance directs about one quarter of premiums to reinsurance; however, in the 13 spheres (out of 15), which account for about half total premiums in general insurance, the reinsurance coverage amounts to 45 percent on average; another distribution shows that in eight spheres, which together account for more than a quarter of total premiums in general insurance, the reinsurance coverage is two thirds. This illustrates the extent of reliance on reinsurance and the importance of its quality, stability, and geographical dispersal. It is therefore necessary to obtain reports about it at the local level, which is not yet available, and to ensure its supervision abroad, which is currently very loose.

²⁶ Risk relativity refers for example to whether the reinsurance agreement covers a specific proportion of every claim or only of claims that exceed a given threshold.

²⁷ At the end of 2003 regulations and guidelines were drawn up regarding risk management, policy and ceilings of exposure to reinsurers and reports to the Commissioner, and the first reports will apparently be submitted only in 2005.

3.3.3 *Ties to the banking system*

The connection with the banking system creates contagion risk if there is a crisis in insurance companies (and vice versa), and exists in two forms—ownership ties and business ties.

Ownership ties exist in cases of ownership and cross-ownership between insurance firms and banks. For example, Leumi Bank holds 20 percent each of Migdal and Direct Insurance; the same rates are held by Bank Hapoalim in Clal Insurance, and Discount Bank in Harel. Migdal, Clal and Harel (relative to income from premiums in 2003) accounted for 70 percent of life insurance and 50 percent of general insurance. There is also reverse ownership: the Eliyahu insurance firm owns a proportion of Union Bank and about 10 percent of Leumi Bank, and Migdal owns 10 percent of Leumi Bank.

The business ties are expressed in several ways: deposits in banks, mortgage insurance, credit derivatives, and other guarantees. As regards deposits in banks, some 18 percent of total assets of insurance are deposited in banks (as of 2003), but constitute only 6 percent of total deposits in the banking system (Table A1), amounts which are not significant. However, the share of insurance assets in long-term deposits (over a year) in the banking system is double, about 12 percent, so that the collapse of the insurance industry would endanger long-term deposits in the banking system, create a duration problem and interest-rate exposure in the banking system, and might even be significant. As regards mortgage insurance—the insurance of property and life against mortgage loans—the collapse of an insurance company exposes the banks to the risk endemic in these loans. An additional risk is created if the banking system extends credit which is backed by insurance—such as transportation risk or other implementation guarantees—but there is no information about this credit. Recently credit derivatives which transfer risks from the banks to insurance firms have been developed elsewhere, but to the best of our knowledge, no such instruments exist in Israel.

The assessment of contagion risk in this situation does not indicate any exceptional structural lacunae, but pressure tests could be very helpful in assessing risks and contagion risk, especially as regards the realization of insurance catastrophes and long-term indexed deposits of insurance in the banking system.

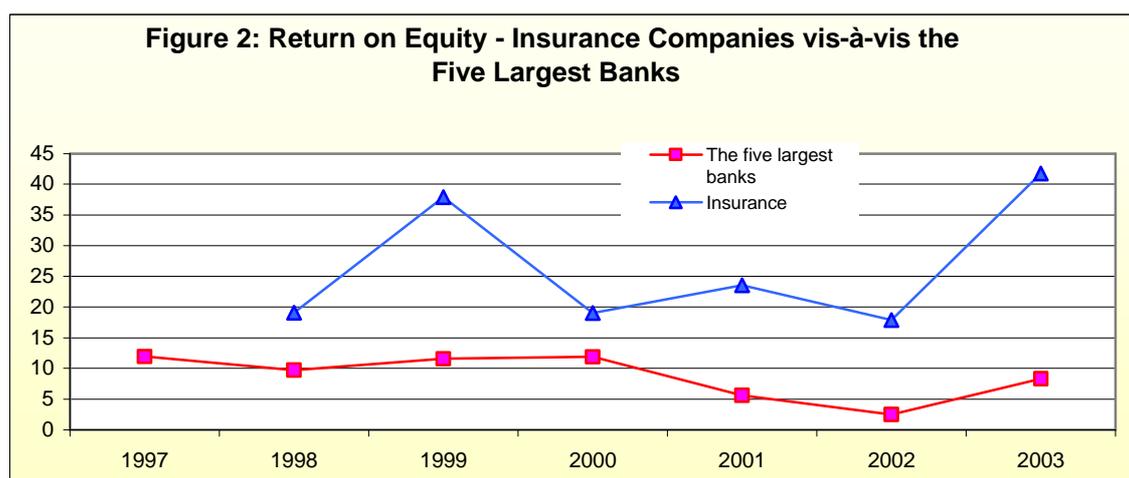
3.3.4 *Capital adequacy*

In principle there are two methods for estimating capital adequacy: the correct way is relative to risks, but this requires a great deal of data about the various risks and other exposures, and this is not available. The second, easier way is relative to assets, but this does not adequately reflect risks. For Israel, even when using the easy method—the ratio of capital to assets—many problems arise, hampering the assessment of capital adequacy. 1. Capital is common to all insurance activities—life and general—and cannot be divided up between them; 2. The capital requirements are based primarily on the premiums in general insurance²⁸ (without distinguishing between spheres) rather than on life insurance, even though technical risks exist in the latter. In addition, the capital requirements do not express securities risk (return on investment), which affects profits via the pricing of

²⁸ The priority regulations determine that bodily injury takes precedence over damage to property, and individuals take precedence over corporations. They do not state that life insurance is preferable.

premiums in general insurance²⁹ as well as via the collection of management fees from participants (as these are also derived from the return on the investment portfolio); 3. The capital requirements are based, over and above basic capital, on the company's liabilities *less* reinsurance (net premiums), but, as stated, the quality of the reinsurers and their regulation abroad is not known to the regulator. 4. While the regulations allow tier-two capital (up to 50 percent of equity, similar to the banking system) to be held, in the balance sheet it is included in the 'certificates of liability' item, and hence cannot be identified separately.³⁰

In view of these difficulties in estimating capital adequacy, the high return on equity in insurance (as described below) may reflect capital requirements that are too low. Table 3d presents an international comparison of average capital adequacy (relative to assets) in 1996-1998. With the exception of the strange and unclear case of Australia, the pre-tax return on equity in Israel³¹ was the highest, with Germany close behind; in the other countries the return on equity was significantly lower. The mirror-image of this—the capital/assets ratio—in Israel (4.7 percent) was lower than in the other countries, except for France and Germany (2.7 percent). Note that Germany's insurance industry suffered from many problems in that period.



A comparison of the return on equity in insurance and the banks in Israel in 1996-2003 (Figure 2) shows that it is far higher in the former than in the latter. A similar comparison made on an international level (Table 3d) shows that in some countries (Canada, the US, and Holland) the return is higher in banks than in insurance, meaning that the situation in

²⁹ The operating efficiency is measured by expenditure items and claims relative to net premiums in general insurance. In 1996-2003 the ratio is usually greater than one, in which case there is a loss. Only when the return on investments is included in the calculation is the ratio less than one in most years (Table A1). Thus, for example, the year 2002 is exceptional as then the return on investments was negative but premiums rose markedly—considerable elasticity which could reflect very little competition. Studies undertaken elsewhere show that there is a cyclical element in premiums in accordance with economic cycles—when large returns can be expected in the markets the premiums decrease in order to enlarge market share, and vice versa—but the fact that competition cannot tolerate much elasticity in premiums should be taken into account.

³⁰ Even in the explanatory notes of Migdal's financial statements it was not possible to identify tier two capital.

³¹ The data are pre-tax, and hence are also used for Israel. Original data in the rest of the world present general and life insurance separately, but since no such distinction is possible in Israel they were combined in order to make comparisons possible.

Israel is not ‘natural,’ reinforcing the hypothesis that the capital requirements in Israel are unduly low (or there is too little competition, thereby giving rise to excessive profits).

The comparison raises several other interesting points: 1. The data for the rest of the world present life and general insurance separately, but, as stated, this is not the case in Israel; 2. The life insurance industry holds a large amount of capital; in Israel, however, most of the capital adequacy is determined by general insurance and not by life insurance. 3. With the exception of Germany and Sweden, capital adequacy in general insurance is higher than that in life insurance; 4. There are marked differences between countries in capital adequacy (capital/assets ratio); there are also considerable differences between countries in the return on equity, and these are greater than those regarding banks. This situation also reflects the lack of international standards in insurance, in comparison with the Basle directives regarding the banks, as well as differences in the structure of risks, making comparisons difficult.

	Israel	Canada	US	Australia	France	Germany	Holland	Sweden	UK
Life insurance									
Capital/assets ratio		19.3	6.0	8.8	1.5	3.1	12.7	52.9	10.8
Pre-tax return on equity		7.6	18.3	350.7	27.1	9.0	9.4	19.7	
Pre-tax return on assets		1.4	1.1	29.6	0.4	0.3	1.2	10.4	
General insurance									
Capital/assets ratio		35.1	32.5	26.1	10.7	1.2	32.6	45.9	
Pre-tax return on equity		13.1	12.6	9.8	25.9	365.0	10.9	12.6	
Pre-tax return on assets		4.6	4.1	2.6	2.4	3.4	3.5	5.7	
Total insurance									
Capital/assets ratio	4.7	21.7	12.8	13.0	2.8	2.7	15.2	51.1	
Pre-tax return on equity	35.2	8.9	14.6	177.8	25.0	35.6	9.8	18.1	
Pre-tax return on assets	1.7	1.9	1.9	23.0	0.7	1.0	1.5	9.2	
Comparison with banks									
Pre-tax return on equity	14.8	21.6	21.1	22.4	7.5	14.0	15.1	16.6	10.2
¹ Israel in 1997-1999; the US in 1995-1998.									
² All the banks; in the US and Germany, commercial banks.									
Source: Based on Group of Ten (2001), pp. 405-447); for Israel: Commissioner for Capital Market, Insurance and Savings in Ministry of Finance, Annual Report.									

3.3.5 *Connections with markets*

The potential of market contagion (in both directions) is examined by means of the share of insurance in the domestic tradable market and the share of tradable assets in the asset portfolio (Table A1), expressing the market risk to assets, on the one hand, and on the basis of the composition of the industry's liabilities, on the other, together these express the insurance firm's exposure to market risks: the more risks that fall on the insurance company, the greater the exposure. Thus, in defined contribution plans the market risks fall on the members and not on the insurance company, so that there are no market risks for the company. However, when assured return plans, are backed by tradable securities, market risks are relevant. In principle, market risks are also relevant for reserves against the risk component which are invested in tradable securities, but the total risk is smaller than in defined benefit plans, because it is realized only when the insurance event occurs, so that the connection with the markets is weaker.

About one third of the assets of the insurance industry is invested in the tradable domestic market. In defined benefit plans, however, there are very few market risks, as only a negligible part of it (5 percent in 2003) is invested in the tradable market (Table A1). Consequently, the remainder is invested against the defined contribution plans and technical risks.

An examination of the influence exerted by insurance on the tradable market shows that the share of insurance in CPI-indexed government bonds and unindexed Shahar bonds is about 12 percent, whereas its share in total corporate bonds is about one quarter of the tradable market. Note that the contagion effect from insurance to the markets also depends on the ability of the other market players (banks, pension funds, provident funds, etc.) to absorb fluctuations at the same time. The analysis indicates that there is a weak connection with the markets. In order to undertake a more thorough investigation of the subject, also taking technical risks into account, pressure tests are also required.

3.3.6 *Partial transparency in financial statements*

There is only partial transparency in financial statements, and this hampers the assessment of risks on the part of both the regulator and the company itself. Till now we have focused on equity and reinsurance, and some additional examples are presented below:

- There are no reports on financial exposure (such as exist in the banking system) as regards the duration of assets and liabilities,³² foreign-exchange exposure (including derivatives), and interest-rate exposure.
- There is no loan-loss provision item, and hence no expression of expected losses.³³ This item has become more important with the gradual reduction in the issuance of earmarked bonds and the reforms of the last few years, which serve to augment competition in the credit market. In this context, the financial statement does not enable the evaluation of credit risks, e.g., the quality and concentration of borrowers, cannot be assessed.
- No distinction is made between the risk component and the composition of savings in life insurance, even though there is a substantive difference between

³² In the notes to the financial statements (Migdal) the duration of assets - deposits and loans - is given, but not as regards liabilities.

³³ The notes to the financial statement (Migdal) refer to this item, but it does not appear as an item in the financial statement itself; in addition, net amounts, after loan-loss provision, are given.

them (a directive to this effect was issued by the Commissioner in 2002, to be implemented in 2004).

- The actuarial assessment should be expressed in the ‘changes in technical reserves’ item in the insurance business statement. In Israel, however, this item does not distinguish between this and income from investments, which constitute the lion’s share of this item, and hence it is impossible to examine the actuarial aspect.
- It is not possible to measure operating efficiency, e.g., premium per worker, because of the absence of data on the number of workers. This measurement is also problematic because of marketing via agents, and the difficulty of separating life and general insurance business.
- To the best of our knowledge, the capacity of the insurance firms to absorb catastrophic risk has not been examined in Israel. There is also no report of concentration or the extent of geographic dispersal of insured persons. Note in this connection that the indicator of the ratio of net premiums to equity (Table A2) should reflect the liabilities (burden) of insurance in normal circumstances, but not in catastrophes, as in the latter instance it is total coverage, not the premium, that is the determining factor.

4. SUMMARY AND CONCLUSIONS

This study has examined the insurance sector in Israel with regard to financial stability. Our point of departure was the international knowledge—both theoretical and empirical—that has been accumulated on the subject. We found that the industry-institutional structure varies between countries, there are no standards, and data are not readily available. Naturally, this situation makes it difficult to undertake international comparisons. On the basis of international experience, we analyzed the insurance sector in Israel in principle and in structural terms, utilizing the available data from financial statements, and in some cases we made international comparisons.

The main points arising from international knowledge and experience are as follows:

1. In the insurance industry there are no agreed international standards, such as the Basle directives regarding the banking system. In the last few years the IAIS has drawn up some principles, but they have not yet been given practical expression. Furthermore, the regulation of the insurance industry is weaker than it is in banking.
2. Traditionally, the insurance sector throughout the world was perceived as a stable segment of the financial system. However, various episodes, especially in the 1990s, have shown that it is not impervious to crises. Most of the bankruptcies of life insurance firms occurred because of the sale of quasi-banking products in which their commitments to assured returns and liquid liabilities grew, on the one hand, while on the other the pro-cyclical portfolio (e.g., tradable securities and real estate), which made it impossible to meet commitments to guarantee the return during a crisis, rose. The risk of contagion to the banking sector stemmed from the business and ownership connection. Experience has shown that the risk to financial stability comes mainly from the collapse of the life insurance, and not the general insurance sector. For this reason, the IMF’s indicators (at this stage) focus solely on life insurance.

3. Although the closer ownership and business ties between the banks and insurance was the cause of the crises, the tendency at present appears to be not to prevent the trend of closer ties but rather to tighten regulation. This may be due to the brief period that has transpired between the recent crises and the studies, with their conclusions. Alternatively, it may be the inevitable outcome of globalization and liberalization, which should make it possible to maximize their inherent benefits, on the one hand, while alleviating the threat to financial stability deriving from them by means of increased awareness and more rigorous regulation, on the other.

The main conclusions of the study regarding Israel

The general trend evident throughout the world of greater quasi-banking activities and closer business and ownership ties between banks and insurance—two central axes by means of which the insurance industry affects financial stability—is not evident in Israel. In the first respect, activity in defined benefit life insurance plans has been frozen, while vis-à-vis the outstanding liabilities there are assured return earmarked bonds. In the second regard, the banks' holdings in insurance companies are restricted and limited by law, while the insurance firms' holdings in banks are even smaller. Consequently, in both these important respects the insurance industry in Israel has almost no effect on the stability of the financial system as a whole.

Nevertheless, other aspects of the insurance industry do affect financial stability; first, the regulation of insurance is not sufficiently stringent - despite the improvement in recent years - and in this respect Israel is in line with the rest of the world. One expression of this is the difficulty of assessing risk in Israel because of the lack of transparency of financial statements. Second, the structure of the insurance industry in Israel differs from that in most other countries. The significance of regulation and the structure of the industry as regards financial stability is expressed in the following points:

1. The study undertaken by the IAIS indicates that in more than two thirds of the 89 countries reviewed the two insurance spheres (life and general insurance) cannot be conducted in the same company; the principles of the IAIS also prohibit this. In Israel, in contrast with the rest of the world and contrary to principles currently being formulated, insurance companies operate in both spheres simultaneously, and in some items in their financial statements, e.g., capital, it is impossible to distinguish between the two. Hence, a collapse in general insurance could erode the capital of a company of this kind, thereby also endangering its life insurance business. This is particularly the case in instances of catastrophe, to which general insurance is exposed (so that the analysis of financial stability must take the business of general insurance into account).
2. The capital adequacy requirement, which provides a cushion for absorbing losses, is based primarily on general insurance, even though there are technical risks in life insurance, market risks which affect profits, and there are no data on reinsurance. From an international comparison of the return on equity (and capital adequacy measured by the equity/assets ratio) in insurance, and an international comparison of capital adequacy in insurance vis-à-vis banking, it transpires that the capital adequacy requirement in Israel is low. Another possibility is that the return on equity is high in Israel because of the paucity of competition, making excessive profits possible.

3. Despite the importance of reinsurers for transferring risks and calculating capital adequacy, there is, as stated, no data about their quality and essence? *inter alia* because they are located abroad. Sometimes they are not supervised, either. Moreover, in many of the spheres of general insurance in Israel there is a high rate of reinsurance, which also means that capital requirements are low.
4. In principle, it can be said that in life insurance there is no structural exposure to risks: most of the defined benefit plans (assured return plans) are covered by earmarked bonds, and in the defined contribution plans (profit sharing plans) it is members (policy-holders) rather than insurance firms who are exposed. Nevertheless, in recent years the rate of coverage by means of earmarked bonds has declined, from 86 percent to about two thirds, thereby creating exposure to interest-rate risks in the assured return plans (quasi-banking activity). Quasi-banking activity is also made possible in other plans offered by insurance companies which assure a return but are not covered by earmarked bonds; although currently the amounts deposited in these plans are negligible, they have the potential to grow, especially in the context of the reforms of the last few years, which increase competition in accepting sources and extending credit and the legislative opaqueness regarding the possibility of expanding this activity. If the extent of these plans does in fact grow, they could jeopardize the stability of the insurance firms, especially in view of the weakness of regulation in the sector. Hence, it is essential to monitor developments in amounts and exposure to credit and interest rate in these plans. It is also important to neutralize the ability of the insurance companies to impute losses in these plans (and in the *nostro* account in general) to the profit sharing plans in which the members bear the risks.
5. The lack of transparency of financial data prevents the assessment of risks. The financial statements are not transparent regarding exposure to market risks: neither the duration of assets and liabilities nor the exposure to foreign exchange and interest rate is recorded; there is no separation between the risk and the savings components in life insurance, and there is no loan-loss provision item. This picture, together with the paucity of information about reinsurers, makes it impossible to properly assess risks and the ability to absorb shocks.
6. The general conclusion of the examination of the connection with the financial markets indicates that this link is weak: while about one third of the insurance industry's assets is invested in the domestic tradable market, in the defined benefit plans only a negligible proportion is invested in the tradable market; and the remainder is invested against the defined contribution plans, in which it is members who bear the risk, and against technical risks, in which the exposure to the markets does not represent an immediate threat, as it also depends on the occurrence of insurance events.

5. APPENDICES

Table A1: Selected Indicators of the Systemic Financial Stability of the Insurance Industry (ratios, percent)										
Subject	Indicator	Insurance sphere	1996	1997	1998	1999	2000	2001	2002	2003
Capital adequacy	Equity/net premiums	General	...	31.9	41.3	52.6	53.5	47.9	47.5	59.0
	Equity/technical reserves	Life	...	6.6	7.5	8.3	7.6	6.6	7.4	8.2
	Equity/total assets	Total	...	4.1	4.7	5.2	4.9	4.3	4.7	5.3
Capital reservoir potential	Claims and expenses/net premiums	General	100.0	108.3	104.9	103.6	109.7	105.2	87.8	102.5
	Claims and expenses/less investment income/net premiums	General	94.2	100.6	98.7	92.0	97.8	88.7	87.9	80.7
	ROE	Total			23.0	38.4	19.0	23.8	19.1	40.9
Technical risks	Net technical reserves per average claims in last three years	General			299.0	322.1	356.3	385.0	400.3	410.9
	Net technical reserves per average net premiums in last three years	Life			498.4	568.7	608.0	621.9	620.2	702.9
Dependence on financial markets	Return on investments	Life	...	6.1	3.7	7.2	4.5	5.8	0.5-	11.7
		Total		5.8	3.6	6.9	4.7	6.3	0.5-	11.6
	Return on investments/net premiums	General	5.8	7.7	6.1	11.6	11.9	16.6	0.2-	21.8
	Tradable assets in Israel/total assets	Total		20.9	22.2	24.0	26.9	28.4	29.5	34.3
Liquidity	Tradable assets and nontradable liquid assets/current liabilities	Total	...	73.1	79.2	92.3	105.4	118.7	118.3	138.6
Structural exposure	Earmarked bonds/total assets	Asured return plans	...	78.7	77.3	74.7	68.7	67.5	67.8	66.8
	Tradable bonds/total assets		...	2.2	1.9	2.2	2.6	3.9	4.2	5.0
Exposure to reinsurers	Net premiums/gross premiums	Life	93.5	93.0	93.4	92.8	93.5	94.8	94.8	94.4
		General	79.5	79.2	75.6	74.2	72.5	72.4	75.0	75.4
Contagion to banks	Insurance deposits in banks/total insurance assets	Total	...	16.7	18.9	20.5	22.4	23.4	21.3	18.4
	Share of insurance in total bank deposits	Total	4.8	5.6	5.9	6.4	6.9	6.8	6.6
	Share of insurance in total CPI-indexed deposits over one year in banks	Total						10.5	10.4	11.6
Contagion to financial markets	Share of insurance in tradable market									
	Government bonds									
	CPI-indexed	Total						12.1	12.6	14.0
	Shahar(non-indexed)	Total						13.0	14.2	12.7
	T-bills	Total						2.6	0.7	1.7
	Corporate bonds	Total						26.6	24.9	19.5
	Shares	Total						2.5	3.0	2.9

Source: Based on financial statements submitted to Commissioner of Capital Market, Insurance and Savings in Ministry of Finance and Supervisor of Banks, Bank of Israel.

Table A2: The IMF FSI Indicators for Life Insurance

Table 4/ Overview and Interpretation of FSIs for Life Insurers			
Interpretation of FSIs	Selected FSIs used to monitor different aspects of financial system	Aspects of financial system	Type of FSI
Indicate the capacity of the sector to absorb losses relative to risk exposures; exposures measured by assets size, reserves, regulatory capital or risk models.	Capital/ total assets Capital/ technical reserves	Capital adequacy	Financial soundness
Compares expenses to the level of premiums generated.	Expense ratio (expenses/ net premium)	Earning and profitability	
A charge to current profits due to deviation of current experience from past actuarial assumptions.	Revision to technical reserves/ technical reserves		
Indicates scope of investment income to offset losses from insurance business.	Investment income/ investment assets		
Indicates scope for earning to offset losses relative to capital or assets.	Return on equity (ROE)		
Indicates share of illiquid and potentially volatile assets.	(Real estat + unquoted equities +debt)/ total assets	Asset quality	
Assesses credit policy of sector and indicates potential exposure to asset quality risks.	Receivablesq (Gross premium + reinsurance recoveries)		
Measures degree of exposure to equity risk.	Equities/ total assets		
Serves as indicator of quality of insurers loan portfolio and of credit risk management practices.	Non-performing loans to total gross loans		
Serves as indicator of insurance risk management practice of insurers.	Risk retention ratio (net premium/ gross premium)		Reinsurance and actuarial issues
An indicator of adequacy of technical reserves.	Net technical reserve/ average of net premium received in last three years		
Indicates efficiency of operations of insurance sector measured relative to number of employees or volume of premiums. Inefficient operations suggest management problems.	Gross premium/ number of employees	Management soundness	
	Assets per employee (total assets/ number of employees)		
Identifies vulnerability to loss resulting from forced sale of illiquid assets.	Liquid assets/ current liabilities	Liquidity	
Measures foreign currency mismatch to assess exchange rate risk.	Net open foreign exchange position/ capital	Sensitivity to market risk	
Measures maturity mismatch to assess interest rate risk.	Duration of assets and liabilities		
Essential indicators (included in the Board Paper) are in bold			
Source: IMF (2003) pp. 34. For Convenience the table is introduce AS-IS			

APPENDIX 1

THE PRINCIPLES OF THE IAIS FOR SUPERVISING INSURANCE FIRMS

The IAIS was founded in 1994 and is situated in Basle. Its first principles were approved only in 1998, and to date 28 guiding principles have been set out regarding the six topics listed below, but these have not yet been drawn up as an agreed practical document. Notwithstanding, they serve to delineate the approach adopted to the supervision of the insurance sector and its stability. The principles stress firm regulation which has defined and transparent aims anchored in law, together with the authority to establish and enforce compliance on the part of the insurance companies. Complete transparency is also required from the insurance firms vis-à-vis the Commissioner, the insured party, and the financial markets.

The guiding principles are outlined in the following sections:³⁴ conditions for effective supervision (the legislative framework and developed and efficient financial markets); the supervisory system (the objectives of supervision, the supervisory authority, the process of supervision, cooperation with other supervisory authorities); the requirements from supervised companies (licenses, suitability of persons, transfers of control and the investment portfolio, corporate governance, and internal control); ongoing supervision (the analysis of markets and the relevant spheres, reports to the Supervisor, on-site inspection, preventive and corrective measures, the enforcement of sanctions, winding-up and exit from the market, supervising individual firms and the industry as a whole); prudential requirements (the assessment and management of risks, including via reinsurance, technical reserves, investments, transactions in derivatives, capital adequacy); insurance agents and insured parties (insurance agents, protection of consumers, transparency and exposure, fraud, combating money-laundering and the financing of terrorism).

APPENDIX 2

THE COLLAPSE OF GENERAL INSURANCE FIRMS AND THEIR EFFECT ON FINANCIAL STABILITY

In this appendix we describe two instances of the collapse of general insurance firms, the first in brief and the second more extensively. These examples are intended to illustrate the contention that the collapse of a general insurance firm does not imperil financial stability unless there is an ownership connection with banks, though it could harm real economic activity. Additional conclusions arising from these examples (and from Appendix 3) relate to the significance of a business connection between insurance and banks, the importance of transparency and reporting of exposures in financial statements (and not only of capital adequacy), and the need for rigorous regulation and appropriate human capital.

1. Ireland, ICI, 1985

The Irish insurance company, ICI, collapsed in 1985 as a result of its inability to meet its insurance obligations to its members in its branches in London. Its collapse led to a run on its parent bank, Allied Irish Bank (AIB). In order to avoid further contagion, the regulator bought the insurance firm from its owners and appointed new managers.

³⁴ See Insurance Core Principles (2003).

This is an example of contagion from the collapse of a general insurance company to the banking system when there was an ownership connection (source: UNP).

2. Australia, HIH, 2001

The HIH insurance group was the second largest in Australia. It incorporated 200 different firms, among them seven licensed Australian insurance and reinsurance firms, and other companies which also operated outside Australia. This company suddenly went bankrupt in March 2001. The financial statements which reached the regulatory authority did not indicate what was happening in the company at a sufficiently early stage.

The Australian regulatory authority (Australian Prudential Regulation Authority, APRA), which was established in mid-1998, combines the supervision of banking and of savings and credit institutions, as well as the supervision of insurance—both life and general—and other long-term savings for retirement. Note that even under this wide supervisory umbrella a huge insurance company collapsed (preceded by the collapse of two reinsurers not from the same group, and the discovery of serious difficulties in another). The main reason for all the bankruptcies was that the new authority had not yet managed to establish its position regarding the regulation of the insurance industry, and in effect had inherited legislation from 1973 which was outdated, especially with regard to general insurance. The regulator did not have enough authority to supervise and enforce when suspicions first arose regarding the stability of a specific insurance company. Thus, for example, it was impossible to pose various stability requirements, such as increasing equity, when business risk rose and actuarial problems were revealed in the financial statements.

Warning signs: the financial statements did not show any reason to be concerned. The audited statements for the year ending in June 2000 showed net assets of \$1 billion and solvency of twice the requirements at that time. A similar picture was provided by the unaudited statements for September, which were received in January 2001. Only in March 2001, when the six-monthly financial statements for December 2000 were delayed inordinately, was a demand sent to the company to explain why a special inspector should not be appointed to examine the delay in submitting the statements; it was then that the company announced it was suffering from cash-flow problems and requested help. A special inspector was appointed the following day.

The authority's response: the first thing the APRA did was to act to protect insured parties, as far as possible. All the insurance firms in the HIH conglomerate were instructed to refrain from taking any action without the approval of the inspector, including drawing up new insurance contracts, making changes in existing ones, selling major assets, and altering reinsurance arrangements. The APRA also made arrangements with other insurers to transfer the policies to them: one million insureds were repaid the balance of their premiums, and existing claims to the amount of \$ 1.3 billion were covered in full. At a later stage guarantees to contractors were also transferred to other firms. Six of the seven insurance companies in the group were liquidated in full and their licenses revoked.

In mid-2002 new insurance legislation was introduced, granting wide powers to the supervisory authority, requiring increased capital in general insurance and the adoption of different methods of risk management. A royal commission had been set up already beforehand to investigate the collapse of HIH, and it submitted its report in April 2003. In the wake of the commission's recommendations, a structural change was made in the

supervisory authority, APRA, and cooperation between it and other authorities was increased.

On the basis of the financial stability report for 2001, the collapse did not create particular pressure in the other sectors of the financial system, as might have been expected if a bank of similar size had gone under. This was because, in contrast with the situation with bank deposits, the liabilities of an insurance company to its members are not subject to immediate withdrawal; consequently, there is no—or hardly any—possibility of a run, and the loss of reliability does not spread as it would with a bank; the report also notes that the direct exposure of the financial institutions to HIH was small, and they were also hedged against this. The partial exposure of the financial institutions was via the loss of the members' insurance coverage, but the financial institutions' soundness enabled them to absorb the results of problem credit. It also transpired that the bankruptcy of the group and the sale of its financial assets in the markets did not greatly shock the financial markets. It may also be posited that the response of the supervisory authority to the situation helped to prevent a crisis, and it should be noted that in Australia life and general insurance are separate.

Nonetheless, the collapse of HIH (and several reinsurers beforehand) affected the nonfinancial sphere—economic activity and GDP. Premiums rose, and there was a shortage of certain insurance products, mainly guarantees to contractors and health insurance. Some of the insurers ceased to offer these products because of financial problems, or because they reassessed their risk and profitability. The result of the higher premiums, together with the dearth of certain insurance products, meant that individuals and firms could not obtain adequate insurance cover and so were obliged to cease some activities or reduce output. In some cases government assistance was necessary in order to insure certain products and amend legislation.

The royal commission which investigated the fall of HIH (and several other companies) reached three main conclusions, which were implemented in the new structure of the APRA in 2002: 1. *Greater supervisory authority* and the establishment of a new supervisory regime which was more rigorous and better adapted to the risks. Greater flexibility was given to enable earlier and wider intervention in response to warning signs, and accounting and actuarial 'window-dressing' in general insurance was restricted. 2. *An efficient regulatory process was defined* by means of systems of warning signs at various levels, with their appropriate responses; 3. *The number of employees and the extent of human capital was increased*. Prior to the collapse of HIH less than half the established employees of APRA had ever worked in the various authorities that existed before the consolidated authority was set up in mid-1998, and so a great deal of knowledge and experience was lost. The total number of employees had also been cut from 550 to 400 or less at that time. In the new format, the workforce will be expanded to 570.

Sources: Reserve Bank of Australia (2001, 2002, 2003); APRA (2001, 2004).

APPENDIX 3

THE COLLAPSE OF A LIFE INSURANCE COMPANY IN KOREA

This appendix illustrates the danger of contagion when a life insurance company goes bankrupt, and the particular danger when a life insurance company engages in quasi-

banking activity. The example below also shows the distortions that are created as a result of government intervention, the importance of regulation, of the transparency of financial statements of financial entities in order to reveal exposures, and the significance of monitoring the exposure of the business sector.

The crisis in South Korea in 1997 was widespread, beginning apparently in the nonfinancial sphere, especially the business sector, and growing to a comprehensive financial crisis that included life insurance (and general insurance) companies, the banking system, and the currency. In the background was the fact that the crisis had been developing for ten years as a result of liberalization accompanied by the weakness of the regulatory system, poor management in the business sector and government guarantees given to the business sector.

The life insurance business expanded rapidly in Korea—from six firms in the early 1980s to 33 on the eve of the crisis, and the Korean insurance sector was ranked in sixth place as regards global market segment. The firms operated like banks in several respects—they extended many loans, which amounted to half their balance sheet or more, a large part of them to the business sector, thereby accounting for a significant market segment in the purchase of corporate bonds. However, they also received short-term, interest-bearing deposits from insured parties (members), and were thereby exposed to interest-rate risks. At the time of the 1997 crisis, which apparently began in the business sector, and the shocks in the financial market, the value of the bonds fell, and an excess of net liabilities of \$ 2 billion was created, supplemented by cash-flow problems. The difficulties in the business sector also increased the debt in the insurance and banking sectors. Many businesses went bankrupt, and those that survived found it difficult to obtain finance in order to continue their activities. In 1998-2001 only 21 of the 33 life-insurance companies were still in existence (and 14 out of 29 banks).

The crisis in the business sector began with a sharp deterioration in the terms of trade of the country's principal exports at the beginning of 1996—a situation that persisted until the end of 1997. The profitability of firms plummeted, exports plunged, and this situation served to increase the current account deficit. The situation was not internalized, however, and credit expansion continued from domestic financial institutions—banks, insurance, etc.—to investments which turned out to be inefficient; by guaranteeing the credit, the government increased moral hazard and contributed to the expansion of the credit extended also to unsound companies.

The *liberalization* of the capital market which was begun in the late 1980s and accelerated in the 1990s contributed to the bubble process. Short-term capital from abroad flowed to non-productive sectors, intensifying exposure to duration, and hence to liquidity, and foreign exchange. As the crisis grew, capital outflow was exacerbated. In addition, the government, which had guaranteed credit, absorbed the realization of the risks of the financial institutions and business firms—thereby causing the financial crisis to become a currency crisis. The central bank raised the interest rate in order to stabilize the foreign currency market, further weakening the business and financial sectors.

The process of liberalization was not accompanied by an appropriate *regulatory system*: the regulations regarding exposure were weak and out-dated, particularly with respect to the regulation of financial institutions. Furthermore, financial institutions had been granted implicit government guarantees, creating moral hazard vis-à-vis domestic and foreign lenders, and this situation developed into a dangerous assets-liabilities structure in the financial institutions. It has also been claimed that in the years before the crisis there was

window-dressing of the insurance firms' financial statements—involving illegal practices in some instances—and they did not accurately represent the situation.

The *response*: the crisis led to a deep structural reform, which focused on the financial institutions, the business sector, the labor market, and the public sector. In insurance, the government undertook the commitments to members while implementing a far-reaching structural change in the insurance sector (and the financial sector in general). 18 of the 33 life insurance firms in existence prior to the crisis were problematic: some of them (and two general insurance firms) were sold at auction to foreign investors—a market that opened in the wake of the crisis and as a condition made by the IMF for providing Korea with a \$ 60 billion bail-out package. Some of them merged with other insurance companies and some were nationalized and brought under government control—a process which lasted several years. In order to supervise the financial system two new authorities were established to replace the previous ones: the Financial Supervisory Commission (FSC), in 1998, and the Financial Supervisory Service (FSS) in 1999.

Sources: UNP (2003); FSC and FSS (2001, 2003); Young-Duck Kim (2002).

APPENDIX 4

THE REMOVAL OF BARRIERS IN THE US: THE GLASS-STEAGALL ACT OF 1933 AND THE AMENDMENTS OF THE 1990s

In this appendix we describe the process whereby barriers between financial entities were removed in the era of globalization and liberalization in the 1990s. This process was in evidence even in the US, which had been a bastion of such barriers since the 1930s. Although in the US the barriers were between traditional banks and investment banks, the process serves to characterize trends throughout the world, also regarding the connection between banks and insurance, as well as regarding quasi-banking activity in insurance, and to indicate what are the advantages and disadvantages of this trend. A short discussion of the reasons for the introduction of the Glass-Steagall Act follows, together with an account of the developments in the US and elsewhere which gave rise to arguments for and against its continued existence.

The trend of removing barriers affected even the US, which had been a stronghold of separation, and at the end of the 1990s, after lengthy discussions that lasted two decades, the distinctions which had been set out in the Glass-Steagall Act and which distinguished between traditional and investment banking activity, were obscured; in the framework of the Financial Services Modernization Act³⁵ of 1999 the establishment of holding companies was approved, and they were permitted to deal with a variety of financial activities (e.g., in the sphere of investment and commercial banking), including underwriting and distribution in insurance.

The Glass-Steagall Banking Act of 1933 was introduced in the wake of the Wall Street Crash that hit the US in 1929, when the banking system and stock markets collapsed. The law forbade commercial banks to engage in securities transactions (shares and bonds of various kinds as well as other securities) on behalf of their customers, whether directly or via holdings in financial companies, as well as purchases, underwriting, market-making, public sales, and retail distribution. At that time deposit insurance in banks was also implemented.

³⁵ Also known as the Gramm-Leach-Bliley Act (GLBA).

In the subsequent fifty years relative stability prevailed, and the Glass-Steagall Act was perceived by many as being responsible for this. However, the development of derivatives and other instruments in the 1970s, the crisis in the savings institutions in the early 1980s, and particularly the stock-market crash of 1987 despite the existence of the Glass-Steagall Act, augmented the demand for its annulment or amendment. Those who favored its amendment (commercial banks, academic circles, and even the regulatory authorities) based their approach on the lack of economic efficiency and the artificial aspect of the separation. Those who were against it (mainly the investment banks) stressed the lack of stability in the markets and the damage to competition caused by removing the barriers. Thus, these arguments reflect the dilemma between financial stability and economic efficiency. Note that the recommendations of the Beisky Commission in Israel regarding separating the capital market from the banks because of the bank shares crisis of 1983 were based to a great extent on the Glass-Steagall Act (see also Blass and Grossman, 1998).

Arguments in favor of the annulment:

The Glass-Steagall Act, which advocates traditional banking and prohibits universal banking,³⁶ harms the efficiency and ability of American banks to compete in international markets with banks which are not subject to restrictions of this nature (e.g., Swiss and German banks), and hence exacts a price. Foreign banks are active in the US and also operate in the sphere of investments, so that the ability of US banks to compete (on an equal footing) with universal banking outside the US is eroded. At home, too, the ability of the commercial banks to compete with investment banks is also declining because the latter sidestep the restrictions on accepting deposits and extending credit: many large firms issue commercial papers and are hence steadily becoming less in need of traditional banking. In addition, 'bridging loans' have been extended by investment banks until an IPO occurs, and this constitutes another form of credit. Money market funds have developed as a substitute for deposits. All these have caused a marked contraction in traditional activity.

Another argument concerns the high level of concentration of investment banks in certain products, meaning that there is inefficiency. The entry of the banks into these spheres will augment competition, reduce costs, and improve service.³⁷

Arguments against the annulment:

1. Conflict of interests: universal banking, such as existed before the Wall Street Crash, can lead to conflicts of interest between a bank and its customers.

³⁶ Universal banking is the German model. The use of the term is only for purposes of convenience and brevity, and the reference is to a departure from traditional banking as defined in the Glass-Steagall Act.

³⁷ Blass and Grossman (1998) present the results of various studies supporting the annulment/amendment of the Glass-Steagall Act. One study partly examines whether the banks' involvement in securities helped to cause the Wall Street Crash but rejects this hypothesis. Another study finds that the banks' involvement in underwriting and issuance (via related companies) before the Wall Street Crash was no less transparent than that of the independent investment banks. Additional research backs the claim that the existing restrictions require re-examination at the least, while other studies indicate that the time is ripe for universal banking. Referring to countries in which the securities markets are not sufficiently developed, such as countries in transition, Smith and Walter (1993) indicate awareness of the danger of creating monopoly power in universal banking (the German model), yet favor that model rather than the Anglo-American one because of the dearth of developed capital markets. Another article claims that universal banking does not cause a shortage in the availability of finance (despite the monopoly power).

2. Dependence on commercial banking is increasingly weakened in favor of developing the money and capital markets, so that the contact between savers and investors is more direct than by means of traditional banking. Institutions dealing with underwriting, issuance, and distribution administer the investments of many savers, on the one hand, and enable individuals, companies, and countries to be independent of commercial banking, on the other.
3. The effect of deposit insurance: deposit insurance exists in the commercial banks, but not in the investment banks, thereby creating a situation of discrimination. In investment banks investors are aware of the risk and examine the quality of the bank, while the commercial banks benefit from government insurance, and hence moral hazard is created. While universal banking increases diversification, it also increases systemic risk, because of the size of the bank (if it falls), or alternatively it creates risk for the insurer, in this case the government. The question also arises whether deposit insurance will obtain vis-à-vis securities risks if it is necessary to expand the coverage of deposit insurance (for both securities risks and investment banks).
4. Damage to competition: how can the commercial banks' natural competitive edge over the investment banks be neutralized? Some commercial banks are 'too big to fail,' and the annulment of the Glass-Steagall Act enables them to take over the investment banks. The competitive edge of the commercial banks exists not only by virtue of their access to customers and the existence of deposit insurance, which also means that the cost of bank deposits is lower, but also by virtue of the additional government support they receive via the liquidity provided by the Fed (credit window) to commercial banks. This situation increases dependence, as the commercial banks have to provide credit to their competitors—the investment banks. Is it possible to make a logical decision about extending credit when the opposite party is your competitor?
5. If there is separation, the control exercised by the regulatory systems is better because the range of activities for each company is smaller than it is in a universal system. Furthermore, the regulatory system is better able to facilitate entrepreneurship, innovation, and financial creativity in conditions of separation, because its control is better, and the damage caused by failure is smaller.

Note that despite the separation that existed in the US in accordance with the Glass-Steagall Act, in 1991 seven life insurance companies collapsed. UNP (2003) note that in the 1980s these firms invested a considerable part of their assets in the real estate market and in junk bonds. They also provided five-year assured return investment contracts (GIGs, Guaranteed Investment Products), and the collapse of the mortgage market and of junk bonds in the late 1980s prevented them from providing the assured return.

Sources: Benston (1990); Blass and Grossman (1998); Walter (edit 1989).

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