Roland Eisen

THE ROLE OF INSURANCE IN THE TRANSFORMATION PROCESS – SOME GENERAL REMARKS AND AN EXAMPLE

Preface

The rapid transformation of former socialist countries to market economies and the necessary regulatory reforms will enable the insurance markets in Central and East Europe (CEE) to develop and expand significantly over the next few years.

To discuss the development of the insurance sector, one first has to look at the macro-economic level, or in other words, at the financial stability of the economy. Therefore, sound macroeconomic and structural policies are essential for financial system stability to prevent or at least limit the emergence of serious financial imbalance, misleading price signals and distortions in incentives.

In an increasingly integrated economy, financial sector stability is most likely to be achieved when markets operate competitively, professionally and transparently. Therefore, if it is true that most developing countries, e.g., have a supply-leading causality pattern of development (cf. Jung, 1986), the special attention has to be given to structural, financial and technical constraints which have a significant impact on the supply capabilities of insurance companies. These factors are mainly the small size of the local markets, under-capitalization of insurance companies, lack of sufficient expertise, and suffer from shortage of skilled personnel (see Outreville, 1996, for Central America).

To cope with these problems, the paper is organized as follows: in the first part some observations with regard to the role of insurance in the economy are given followed by some remarks about the structure of insurance markets in CEEC in the second part. In the third part some explanation on the measure of economic importance of insurance and factors explaining the growth of insurance are given. The role of supervision and liberalization of insurance markets will be considered in the forth part. Some concluding comments are presented in the fifth part.

I. The role of insurance in the economy

I.1. A general view

Insurance can be looked at as a secondary sector depending in its development mostly on the development of the economy as a whole: insurance serves in production, consumption, distribution of goods and services, in money and credit exchange as well as in creating and conservation of (physical and financial) wealth.

Two recent developments, however, are changing the role of services and, therefore, of insurance in the economy. On the one hand, the *importance of the pure cost of production* or of manufacturing is diminishing, and the part of «services» making the complex service and delivery system work accounts for a larger and larger part. Most of these service functions –

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Johann Wolfgang Goethe-Universität, Department of Economics, Frankfurt/Main.

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research and development, financing, quality control, safety, logistics, distribution network, maintenance, leasing, waste management, recycling etc. – reach into the future, so that an ever higher part of cost reflects a probabilistic judgment on future costs, similar to the insurance «reversed cycle» pricing (see Giarini, 1997, p. 5).

On the other hand, again linked to modern technology, is *the growth of vulnerability*, which is the result of a paradox: the more technologically advanced a system is, the narrower the acceptable margin of error in the way it functions, and the greater the consequences of accidents or mismanagement (see ibid, p. 8). And this is a field where insurers feel at home: events with low frequency, high damages. The control of vulnerability in the industrial, environmental and social field will need more efficient insurance backing.

Both these reasons point to the great and growing importance of insurance in risk management in the service economy, and management of uncertainty in a vulnerable environment. Therefore, a well-functioning insurance market plays an important role in economic growth and development.

In a modern market economy insurance fosters economic growth and development in at least *four* different ways, where each route itself has two lines, a stabilization and a growth line:

- risk allocation
- accumulation of capital
- mobilization of financial resources
- governance control.

The *efficient allocation of risks* minimizes transaction costs and reduces damages via prompt settlement of claims and via technical controls and loss nutigration services. Both these functions contribute to growth and stability of the economy. Furthermore, because insurance reduces the uncertainty of the individual, the undertaking of riskier, but more profitable business is possible: the individual gains more action space which can be used to chance additional risks. But these risks will be entered voluntarily and – via insurance – the expected returns will increase despite the increase in risk, so the final result is an increase in welfare. Also business operates with less volatility and risk of failure which is also conducive to greater financial and social stability and, hence, to economic growth.

With necessity insurance leads to a capital fund, insurance acts as hoarding or *accumulation of capital*: normally insurance premiums are paid in advance at the beginning of the insurance period; therefore, a premium fund will be created, out of which in the course of the year the claims and other expenditures will be paid. Additionally, there are catastrophe reserves and reserves for long-tail claims, so these funds are on average larger than the premium income of one year (the *funds-generating coefficient* is normally larger than one; it can be interpreted as the average of investible funds per dollar of annual premiums). These funds are now available for the capital markets. Taking into account that in personal lines (life and health insurance, accident insurance) the premiums contain a «savings component» or «age related component», the picture changes dramatically.

The investment of these funds at the capital markets is an important portion of all available capital and influences the structure and liquidity of the capital markets. Insofar as these funds are steadily available, they contribute to the growth and stability of the economy.

Besides this accumulation function insurance also serves a *mobilization of capital function*. On the one hand, this is based on the «saving incentive» of different insurance products. In a pay-as-you-go-system the premium receipts are expensed fully in the course of the year; macroeconomically there is no capital stock (except the building up of revolving funds), but individually each one insured regards his premium as a savings contribution, which accumulates and matures for rent payment later. In a certain sense, insurance mobilizes savings and is channelling them into investment. This fosters economic growth and development. On the other hand, the individual can manage her/his living standard in old age via insurance, and this in turn may lead to increased savings (the so called goal achievement hypothesis). Insofar as insurance leads to stabilization of the individual income stream (over the life time), this in turn will lead to stabilization of the macroeconomic income stream.

Normally, insurance premiums are calculated on a risk-related basis, i.e. for a given economic value, the premium is the higher the higher is the risk or the probability of an accident. This leads not only to an optimal risk allocation in the sense that this individual will bear the risk which one can afford with the least cost. Additionally, this causation principle leads also to an incentive of the entrepreneur to reduce the risk, insofar as risk reduction is cheaper than insurance of the risk. Therefore, insurance – like banks and the capital market – exert a certain *control over the firms*, which ensures that the used resources go to the most productive usage (growth), and will not be wasted (stabilization). Furthermore, by means of information on evaluation of firms and of projects, insurance fosters efficient capital accumulation. As lenders and investment, insurance companies also send signals to other market participants.

The risk allocation and distribution function of insurance and, therefore, the *governance control* are of special importance with respect to environmental degradation. Normally,

environmental pollution and overutilization result because environmental goods, such as clean air and water, are public (consumption) goods (according to Paul Samuelson). The production of these goods is a case of «negative joint production» between private and public goods. Since there is some substitutability in this production process, pricing for power and energy, taking into account real resource costs and externalities, taxation and/or technical controls, as well as enlarged private/social poperty rights, can mitigate environmental damages. It is in the latter case that insurance can play a decisive role because individuals (communities, states) can raise claims against polluters; hence, polluting entities have an incentive to buy insurance. If the premium is «risk adjusted» this leads to the right incentives (see Eisen, 1992, for some arguments in favour of environmental liability insurance).

I.2. Insurance in transition economies

In a socialist command economy the insurance sector plays an inferior role. Normally, the primacy of plan fulfilment dominates all financial and insurance transactions. Additionally, in most former socialist countries insurance was a state monopoly. In order to develop a market oriented economy every CEE country has undergone a profound transformation process. Most important are the results with regard to the macroeconomic framework – inflation, taxation, public spending, stability of domestic and international (relative) prices, convertibility, etc. This framework is a factor of fundamental importance for effective enterprise decision making and performance.

Seen from an insurance industry perspective, advances in privatization are of utmost importance. In most CEE countries this process has made definite steps further (see Figure 1); especially in the case of housing and small enterprises. The main problems still rest with large (formerly state owned) firms or conglomerates.

Macroeconomic stability as a critical precondition boosts the quantity and quality of investment which is one of the key determinants of economic growth and rising living standards. In turn, both economic growth and stability are necessary ingredients for a flourishing insurance industry. Decreasing income – as experienced by all CEE countries – leads to a reduction in insurance demand. The effects of inflation on insurance depend on the stage of development of capital markets and on the possibilities of insurers to utilize these markets to offer products which are «inflation proof». Without securing real values, insurance looses most of its function for the insured.

After a deep «adjustment crisis» following the break-down of the economies of former socialist countries and characterized by a sometimes dramatic slump of production and hyperinflation (see for an overwiew Figure 2), we can observe after 1993 a recovery of most CEE countries. The vicious cycle of production slump, income and demand decline followed by production decline, etc., seems now broken, even for Russia and Ukraine. Also inflation rates have declined significantly. It is expected that this process will continue in 1997.

Figure 1: **Privatization (percent of GDP), selected CEE countries, 1992 and 1995 (rough EBRD estimates)**

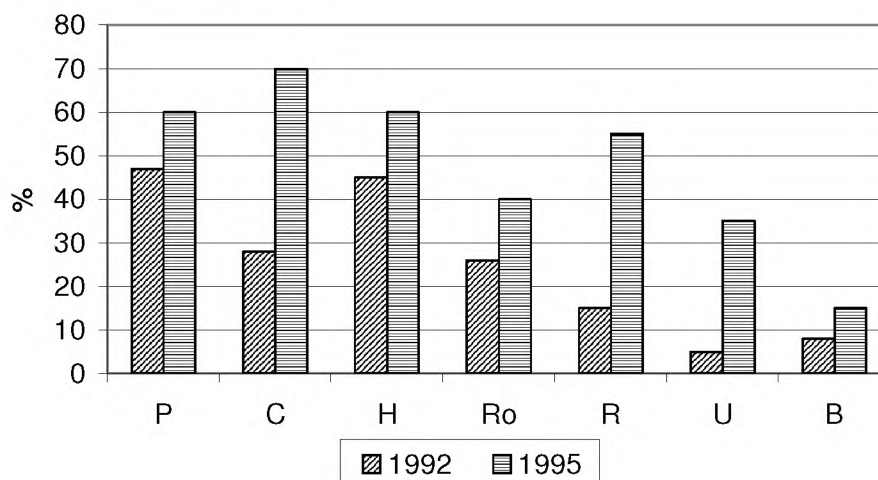
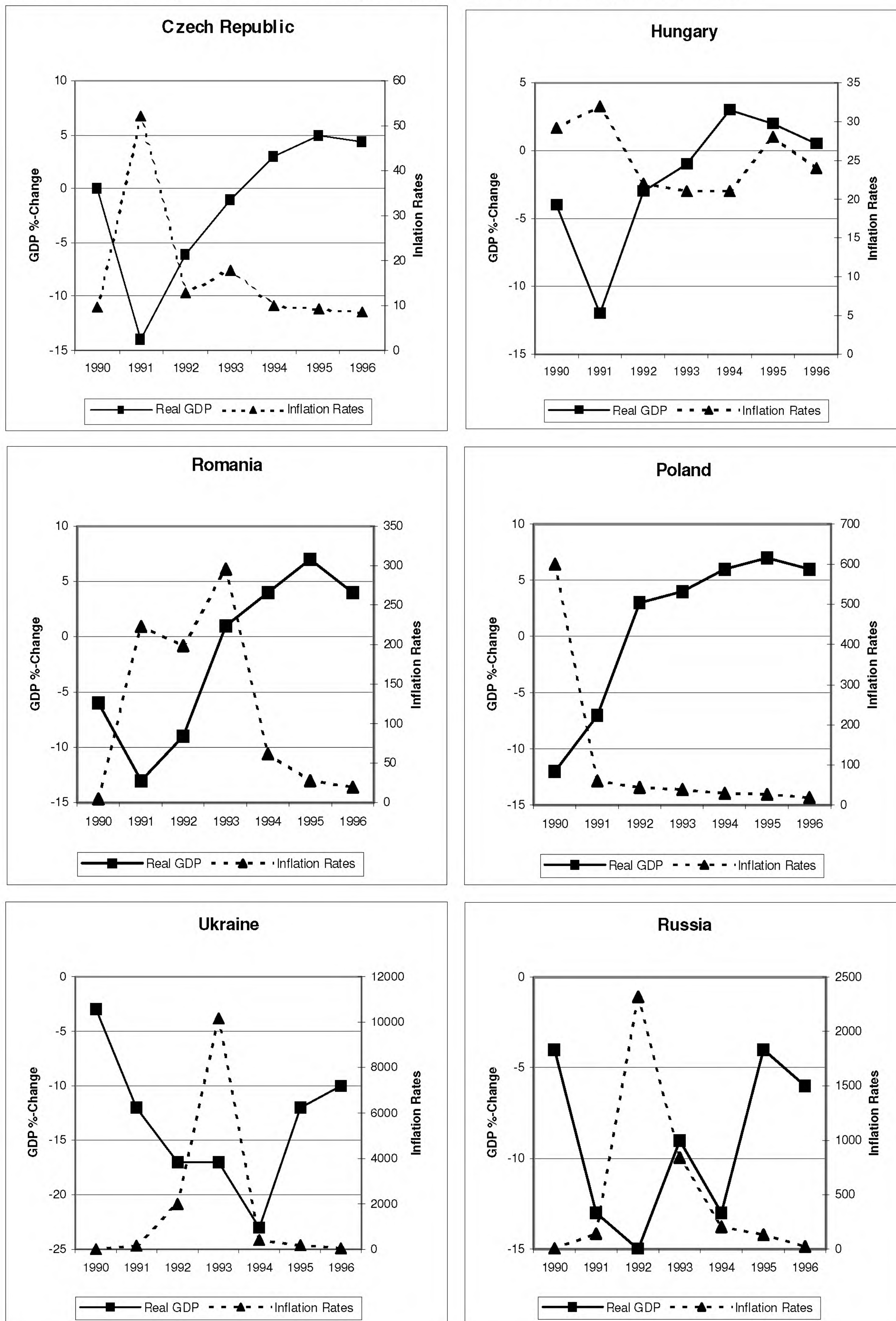


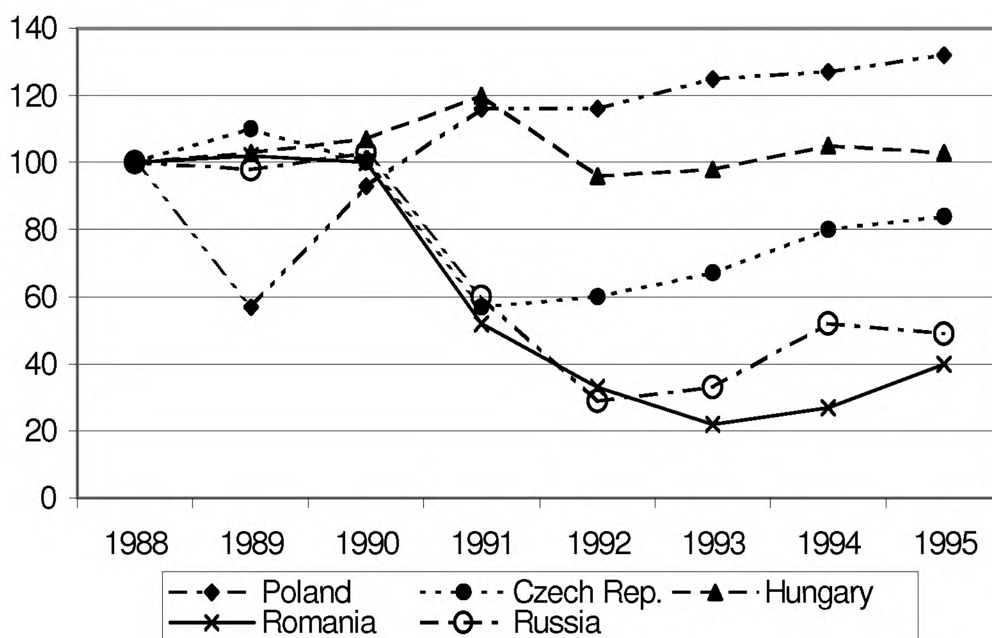
Figure 2: **Macroeconomic performance**
Ref.: Stern (1997), p. 39; Fisher et al. (1997), p. 82; BMWI-Dok. (1997) no. 420



II. The structure of insurance markets in CEE countries

Since 1989, in CEE countries the insurance industry as all other industries has undergone a profound transformation process which started with privatization and de-monopolization. Therefore, an ongoing structural change is to be expected. The deep adjustment crisis and the hyperinflation hit the insurance sector more than the economies on average – the total slump in premium volume was more pronounced than that of macroeconomic activity (see Figure 3). Since the period of recovery, the importance of insurance in GDP is also increasing in most CEE countries.

Figure 3: **Premium income (1988=100)**



The structure of insurance demand is still characterized by the history of command economies where to a lesser degree non-life insurance dominates; and within this sector motor vehicle and liability insurance, as well as property and fire insurance, have the largest share (with the exception of Russia and Ukraine where until now motor liability insurance is not mandatory). Life insurance – mostly due to the low income levels in the CEE countries – is also still underdeveloped.

In most of the CEEC insurance markets the number of insurers is increasing (see Table 1). This seems to be a tendency towards more efficient market structures, because the pressure to introduce more consumer adapted products and to calculate premiums according to risks will increase. Table 1 gives for some CEE countries an overview over the number of companies, the market volume, and market shares. Despite de-monopolization and free market entry, the market share of the former state monopoly insurers is still high but shrinking. This development seems to be more pronounced in non-life than in life insurance. Interestingly, demonopolization is more advanced in Russia and Ukraine than in other countries. In part this

[1] This chapter draws heavily on data published by Swiss-Re; cf. Swiss-Re (1997).

can be explained by the still existing state monopoly, e.g. in motor insurance in some countries. At the same time the share of foreign or foreign dominated insurers is increasing. Compared to Western Europe the share is still small, with the exception of Hungary where the insurance industry practically is under foreign control (see Table 1).

Table 1: **Characteristics of insurance markets of selected CEEcountries, 1994 (1995)**

Country	No. of insurance companies			volume	1–share[2]		3–share[3]		foreign[4]		insurance density (US–S)	insurance penetration
	total	L	NL	(Mio US–$)	L	NL	L	NL	L	NL		
Poland (P)	41[5]	13	28	1,824 (2,287)	95.8	60.6	100	82.8	5.2	2.9	47.30 (59.2)	1.96 (1.90)
Czech Republic (C)	34[1]	5	20	1,015 (1,268)	78.7	76.1	95	93.3	12.8	1.2	98.30 (123.1)	2.82 (2.84)
Hungary (H)	14			894 (947)	41.0	50.6	87.6	80.8	100	96	88.00 (92.8)	2.27 (2.17)
Romania (Ro)	43[5]			104 (150)	(58.3)		(8.7)				4.60 (6.6)	0.34 (0.42)
Russia (R)	2745[5]			3,483 (4,803)	(3.2)		(7.9)				23.50 (32.4)	1.26 (1.32)
Ukraine (U)	658			455 (–)							8.90 (–)	1.27 (–)
Belarus (B)	87			25 (–)	(26.8)		(46.9)				2.40 (–)	0.49 (–)

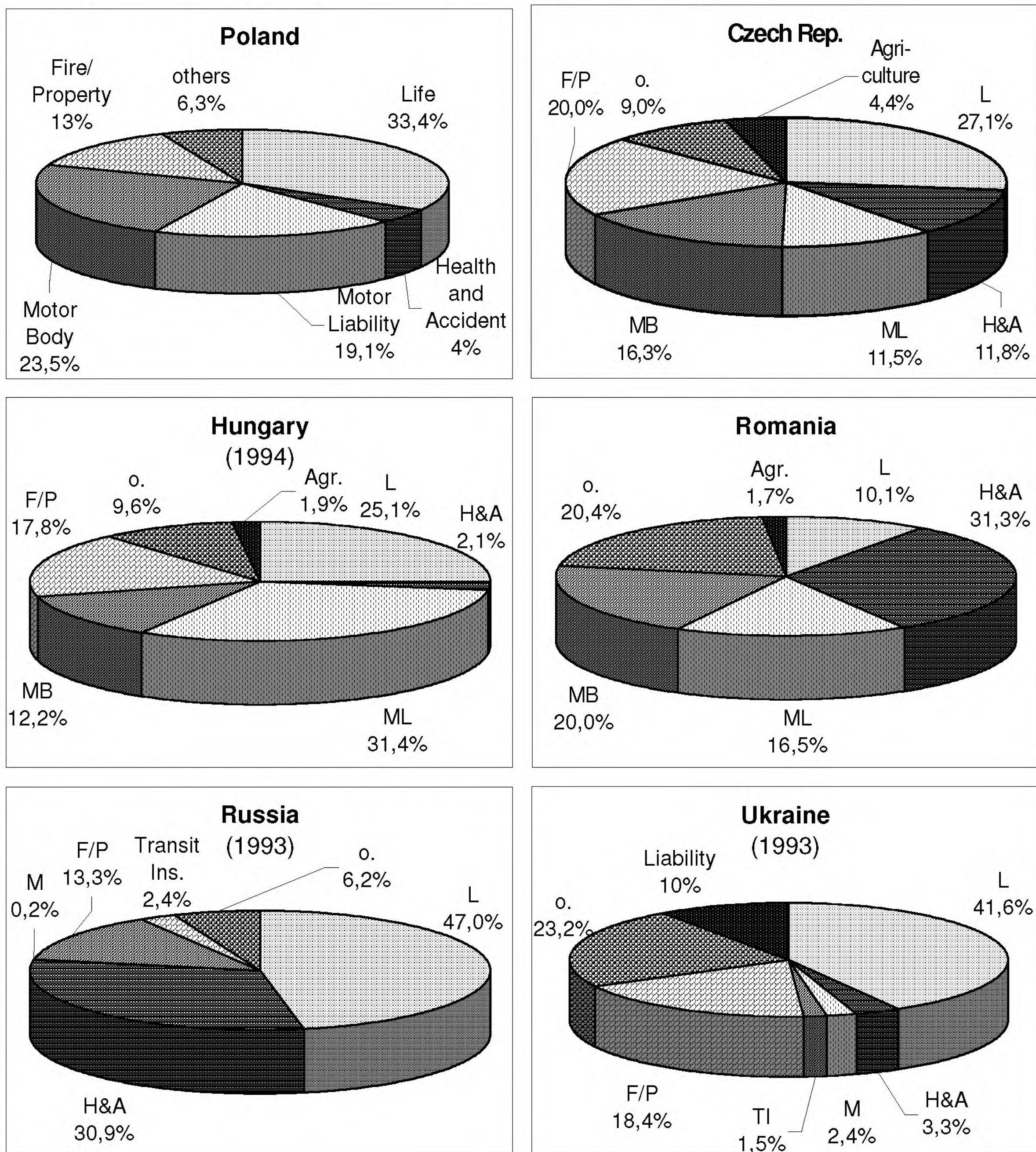
1) 9 of these companies offer combined policies.
2) 1– share: market share of the largest company.
3) 3–share: market share of the 3 largest companies.
4) foreign: share of foreign-owned companies
5) Figures relate to 1995
NL=Non-Life, L-Life
Source: Swiss-Re, Sigma 8/1996.

As mentioned above, the total structure of demand shows the dominance of non-life insurance. In total, the non-life business also shows a dramatic decline in premium volume. Since 1993 there is, however, a recovery. Parallel with the recovery of the macroeconomy, the non-life business will also prosper. At the start, there was certainly the slump in agricultural insurance which dominated the picture. This follows not only from the abolishment of the compulsory insurance, but also from the high debts of farmers which cannot afford to pay the premiums.

To a large extend this, however, fostered the development of new branches, especially motor vehicle insurance and motor third party liability insurance which are almost everywhere obligatory – traffic density increases, the average value of cars is rising, accident probability is increasing, and, the last but not the least, burglary and theft are becoming more common. Also, because of privatization, property and fire insurance are growing. Besides, the coverage is also increasing: there is a change from book value to replacement value. Furthermore, liability insurance, especially product liability is gaining in importance. Figure 4 shows similarities and differences between certain CEE countries.

Life insurance business was especially affected by hyperinflation. The existing life policies, used under the communist regimes mostly to absorb excessive purchasing power, were not indexed, and, therefore, lost their values. Life insurance was forced to start anew, but in the first phase with great difficulties caused be decreasing real incomes and problems of insurers to secure real values in an environment of high inflation and great turmoil. Only within a stable and growing macroeconomic framework the situation is steadily improving.

Figure 4: **Structure of insurance lines (selected CEEC, 1995)**



III. Some measures of the insurance importance and factors explaining its growth

Insurance is a financial service and belongs therefore to the third or service sector. According to the 3-sector hypothesis, developed by Colin Clark (1940) and Jean Fourastié (1949), and its demand interpretation, the development of insurance markets is highly correlated with Gross National Product (GNP). Therefore, to gain some insight into the future importance of insurance, Swiss Re-Insurance calculates for most countries two indicators: *insurance density*, measuring premiums in US$ per capita, and *insurance penetration*, measuring the relation between insurance premiums and GDP, also per capita.

On the one hand, these indicators allow some uncertain projections into the future. Given, e.g. that insurance premiums per capita in South Korea (in 1994 at a level of US$ 1,016.5) will come near the level of Japan (in 1994 US$ 4,849.7), the total premium income in South Korea will be double as the German total insurance premiums. On the other hand, these as indicators also reveal structural differences between insurance markets of various countries, e.g. the different importance of private versus social insurance.

The figures for *insurance density* range for the CEEC from US$245.6 for Slovenia, US$47.3 for Poland, US$23.5 for Russia, US$8.9 for Ukraine, to US$2.4 for Belarus, as compared e.g. with US$1,577.9 for Germany. The figures for *insurance penetration* in CEEC are relatively low, ranking from 3.48% for Slovenia, 1.96% for Poland, 1.26% for Russia, 1.27% for Ukraine, to 0.34% for Romania, as compared to 7.00 for Germany (all figures are for 1994) (see Table 1).

Given that the 3-sector hypothesis is correct, Figure 5 gives the picture for the year 1989 for different countries with \`developed´ insurance markets. The slope of the regression line is 1.27. Central and Eastern European countries are shown in Figure 6. The slope of the regression line is 1.13 (R-square of 0.75), indicating that these insurance markets are \`small´ and \`less developed‘. Nevertheless, also this means that these countries will also profit from economic growth: 1 percent growth in the economy as a whole (in GDP) may lead to a growth in insurance premiums by 1.13 percent. A more accurate picture can be obtained by subdividing insurance premiums into non-life and life business. The results are shown in Figures 7a and 7b. The slope of the regression lines are 1.06 resp. 1.31 (with R-square of 0.72 resp. 0.71), showing the great importance of life insurance. But the future picture may even be brighter: the economic reforms have reduced inflation rates radically and will do so in the future, which in turn will not only favour the development of life insurance but all insurance business.

This (broadly defined) *income elasticity* is certainly an important economic indicator as seen from the demand side. All in all, however, this view is too narrow, especially when we look at insurance as a financial service. One of the most interesting questions in development theory is which sector, financial or real, leads in the dynamic process of economic development. In principle, there are two possible patterns in the causal relationship between financial development and economic growth. In the first, growth induces expansion of the financial system. We can call this the «*demand-followin*» *view* – as the real sector of the economy develops, there is an increasing demand for various financial services, and this demand is passively met by the financial sector. In the second pattern, the expansion of the financial sector precedes the demand for its services by channeling scarce resources from normally small savers to large investors according to relative rates of return, the financial sector leads and induces real growth. We may call this accordingly the «*supply-leading*» *relationship*. As Jung (1986) has shown, LDCs have a supply-leading causality pattern more frequently than a demand-following pattern. It can also be seen that countries with a higher-than-average growth rate of GDP are rather strongly associated with a supply-leading pattern.

It is always somewhat dangerous to draw comparisons, but when most LDCs have a supply-leading causality pattern of development, then special attention has to be given to financial development in the transition countries. Financial institutions are both central to market economy and were almost entirely absent under command economy. This point is stressed by Zecchini (1997, p. 24 sqq.) and Stern (1997, p. 47 sqq.). The functions of financial institutions «are absolutely fundamental to the market economy» (Stern, ibid, p. 47). But «Financial development has been one of the weakest points in the transition strategy for most RCs» (=Reforming Countries) (Zecchini, 1997, p. 24). Therefore, Zecchini pleads for «a series of structural

changes» (ibid, p. 25) to «create the necessary overall conditions to turn passive lenders, namely the banks, into institutions capable of promoting efficient allocation of credit». This applies to insurance likewise – special attention has to be given to structural, financial and technical constraints which significantly influence the supply capabilities of insurers. As mentioned, these factors are mainly the small size of local markets (except for Russia), under-capitalization of insurance companies, lack of sufficient expertice, and shortage of skilled personnel (see Outreville, 1996).

Figure 5: **Economic development and insurance**

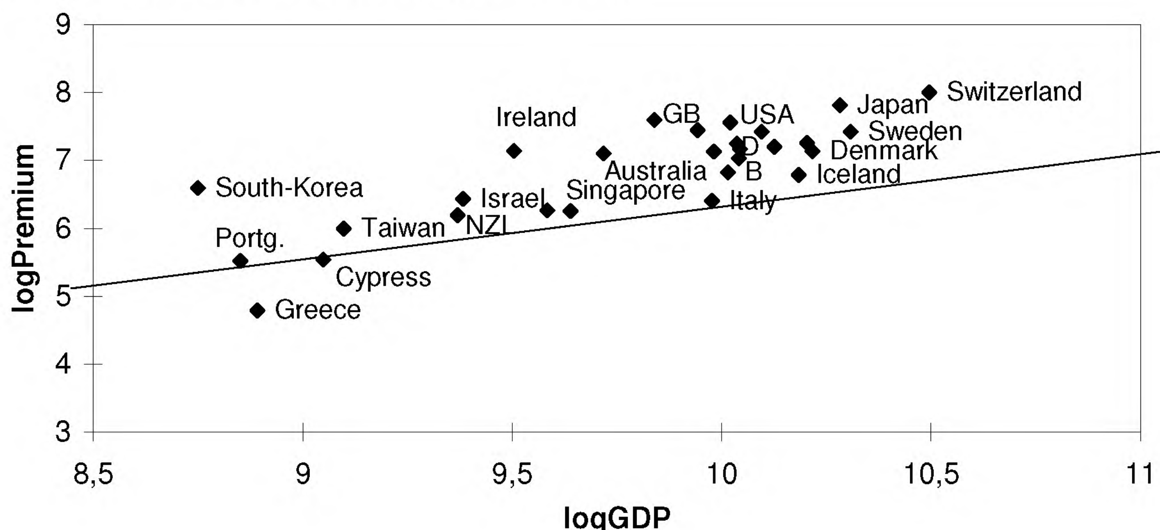


Figure 6: **Economic development and insurance (CEE-countries)**

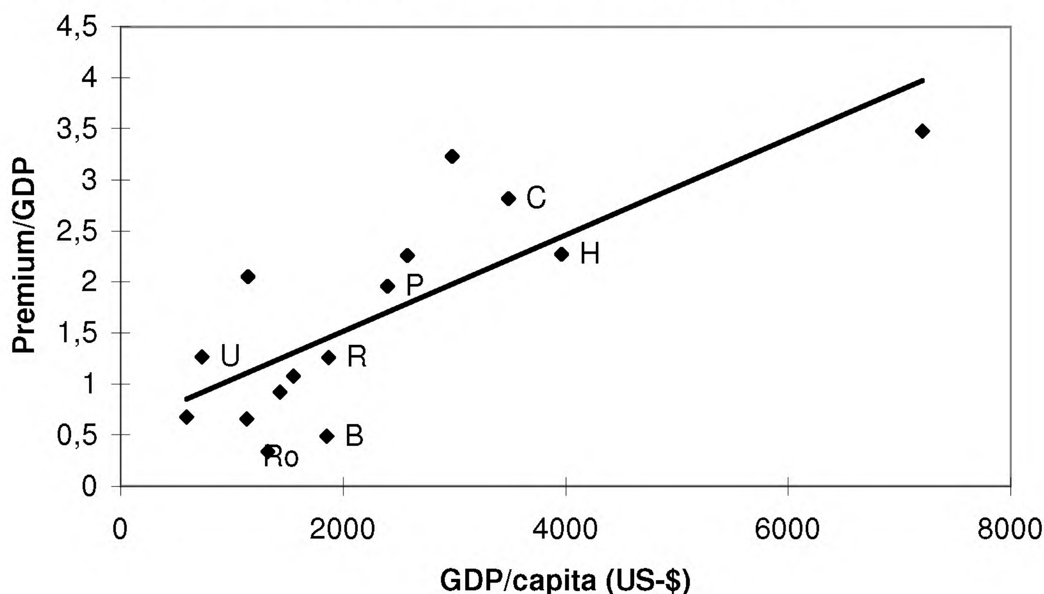


Figure 7a: **NL-premium/GDP (in %) and GDP/capita**

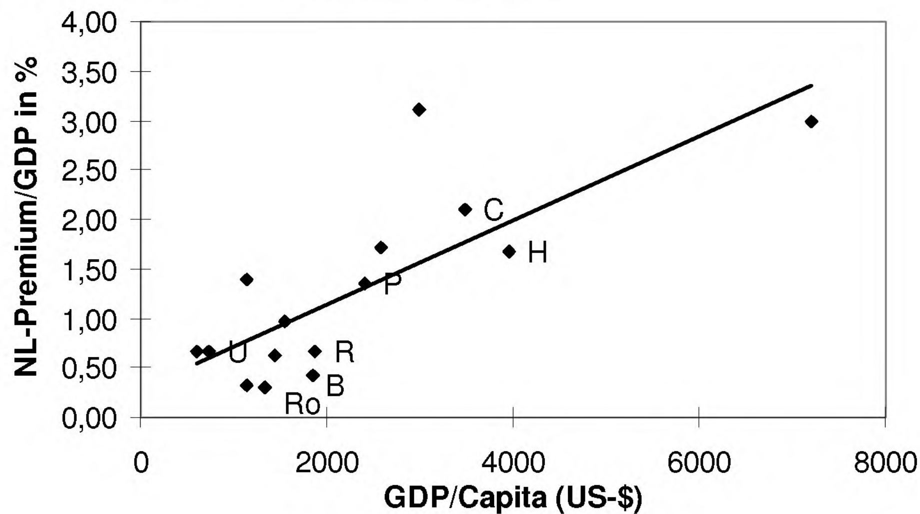
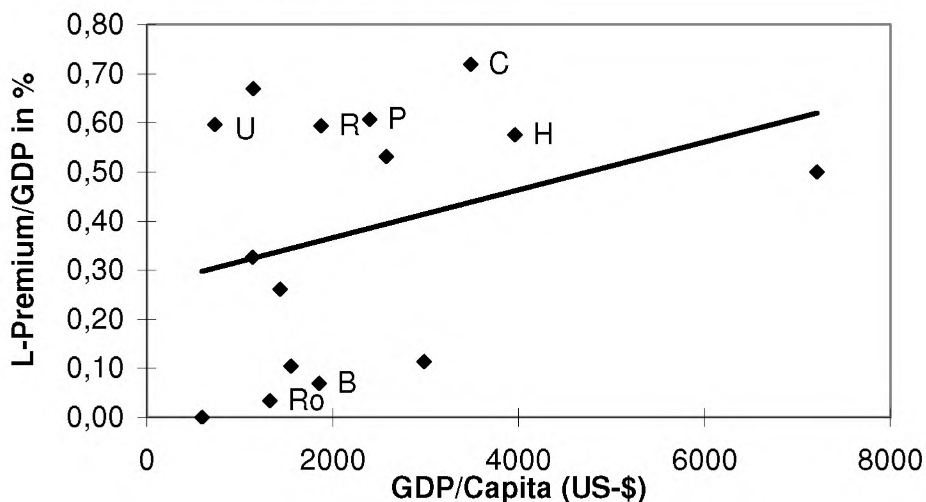


Figure 7b: **L-premium/GDP (in %) and GDP/capita**



Quantitative measures of both the financial and economic development of an economy are bound to be imperfect – the development is highly qualitative and/or multi-dimensional. Measurement of financial development seems particularly controversial because countries differ in their institutional environment and have drastically different financial structures. The best way to cope with such problems is to employ different proxies for financial development. On the one hand, the «*currency ratio*» can be used, defined as the ratio of currency to the narrow definition of money (M1), the sum of currency and demand deposit. This ratio measures the «complexity» of the financial structure – a decrease in the currency ratio will accompany real growth in the economy. On the other hand, the «*monetization ratio*» can be used to measure financial development; it is defined as the ratio of M2, a somewhat broader definition of money, to nominal GDP. The monetization ratio is designed to show the real size of the financial sector of a growing economy, i.e. the higher the development status of the economy, the lower the importance of M1 (as a source of liquidity). We would expect to see this ratio to increase over time if the financial sector develops faster than the real sector. Both ratios together will capture quantitative and qualitative developments of the financial sector of the economy.

In the theory of economic growth the role of investment is twofold. On the one hand, investment is used to supply workers with capital while keeping capital per worker constant. This is «capital widening». On the other hand, investment is used to raise capital per capita, the so called «capital deepening» or «capital intensity». Translated into the financial sector, the relation between money (or insurance premiums) and GDP measures «financial (or insurance) widening» while this ratio measures «financial deepening», the growth of the financial sector relative to the real economy. Therefore, in order to characterize the role and importance of insurance within financial development, we use (cf. also Outreville, 1996) the relationship between insurance penetration (premium income in relation to GDP) and «financial deepening» (broad money in relation to GDP). We call this relationship «*insurance intensity*». Figure 8a shows this relationship for various Latin American countries and figure 8b for various CEE countries. However, as the figure shows, the relationship is not very strong for CEE countries (R-square of 0.13) compared to LA (R-square of 0.44). Different reasons can be put forward to explain this fact. The most obvious seems to be the bad quality of the M2 figures for CEEC.

Figure 8a: **Insurance intensity in Latin America**

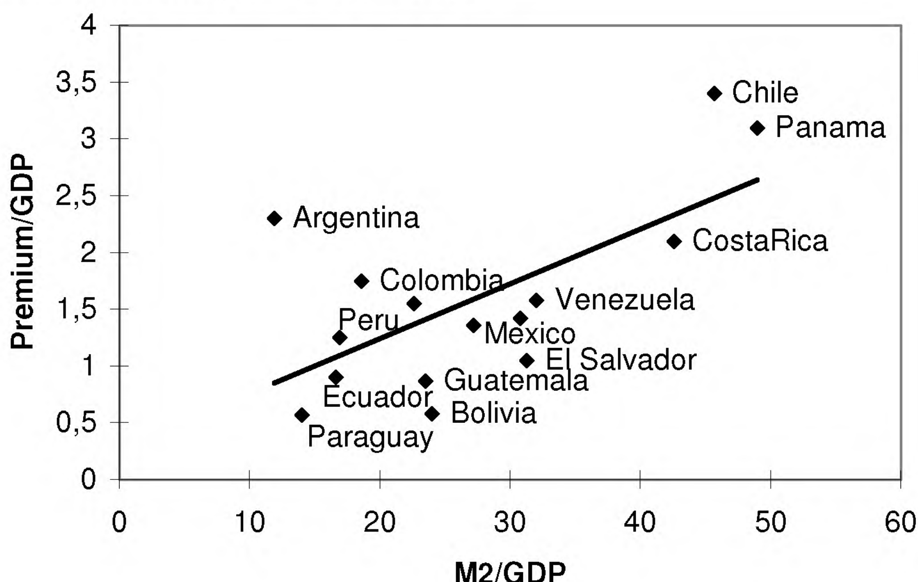
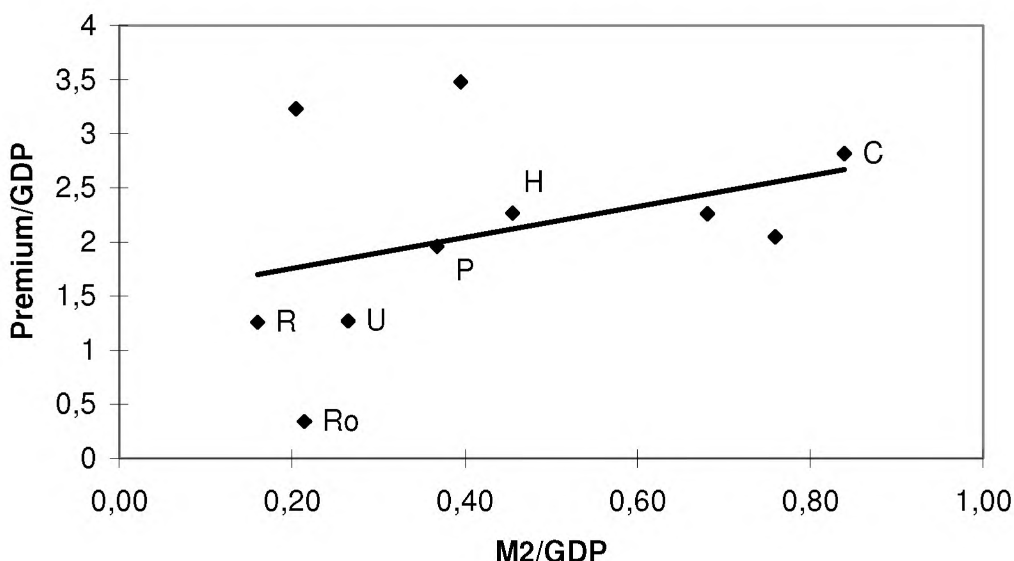


Figure 8b: **Financial Development and insurance («insurance intensity»)**



IV. The role of supervision/regulation and liberalization

With respect to capital markets and non-bank financial institutions, most CEE countries have followed a rather liberal approach. In this largely unregulated environment, capital markets have developed with remarkable pace. This approach seems justified by different needs to diversify enterprises' financial resources outside the banking system, and also to ease the privatization process. However, despite their positive role in trading government debt instruments, «capital markets have not yet become a major source of funds for entreprises, mainly because the surrounding environment has not been favourable enough to market-participation» (Zecchini, 1997, p. 26). Special mention is given to the inadequate information of users of funds, to the still developing market infrastructure, to the limited range of investors, to government securities crowding out other financial instruments, and to the unstable macroeconomic environment.

Nevertheless, banks, insurers and other non-bank financial intermediaries, as well as the financial markets have to be subject to laws and regulations in all countries. Because insurance is held to be «affected with public interest» (Outreville, 1996, p. 580), it should be subjected, like banks and other financial services, to a great degree of public control – it is the nature of a contingent service and the «inversion of the production cycle» which explain why insurance supervision has been recognised and adopted in almost all countries. How regulations are implemented in practice and enforced is at least as important as their requirement on paper. It is, therefore, no wonder that Zecchini (1997, p. 26) concludes, «Moreover, the gap that has arisen between financial liberalisation and the effective application of prudential regulations must be filled by developing a capacity to supervise all financial institutions. In its absence, the financial system will most likely remain vulnerable to financial crises that can undermine the economy's growth prospects». In carrying out this task, the government must balance the advantages of competition and the requirements for safety and confidence in the system which are necessary for it to function effectively (cf. Stern, 1997, p.48).

In most CEE countries, insurance laws are effective and operative, which follow mainly the pattern of the European Union. The supervisory authority should have adequate autonomy, independence and expertise. The safety and soundness of institutions should be the prime objective of regulators. The next aims and objectives of supervision are to protect policy holders against fraud and insolvencies, to improve the quality and availability of insurance services, and to induce the insurance sector to play fully its role as an institutional investor in the economy (cf. Outreville, 1996, p. 582). Prudential regulation, therefore, is not confined to financial statements. «Inappropriate policies, inadequate rates, and improper actions and activities of agents and brokers, can all contribute to an insolvency» (ibid, p. 583).

The example of the EU shows that supervision is also possible when the insurer is not established in the territory. What is necessary is to obtaine guaranties by the supervising authority of the country where the insurer is established. This mutual recognition of licensing and supervisory authorities will gradually eliminate existing barriers of market entry.

The Chilean experience, after the liberalisation in 1980, is not only a good source of convincing evidence in matters of insurance regulation. It is also a good example for the effects of changing the social security system, necessary in CEE countries. In my paper (Eisen, 1996) I discuss the needs and ways of changing the social security system. According to the World Bank vision (cf. World Bank, 1994), the private portion of pension income has to be enlarged. This opens up a quite new world for life insurance business. Private life insurance policies (as well as employer-based pension systems) are well-suited complements to social insurance schemes based on a pay-as-you-go system. Besides smoothing of demographic waves, they favour private savings and mitigate the capital shortage in all CEE countries. But as said earlier, there is a need to introduce prudential regulations even before allowing the growth of these markets. Combined with a stable macroeconomic environment, financial liberalisation will likely result in a high degree of financial stability.

V. Conclusions

The process of transformation of socialist command economies into market economies in the CEE countries seems well established and unreversable. The steady progress in macroeconomic stabilisation and growth in these countries increasingly changes the environment in which insurance and other financial intermediaries can work. Besides this, the ongoing privatization even of large enterprises opens up new possibilities for property/liability insurance. Hopefully, the capital markets will also grow and function without crises, which is especially important for the life insurance sector. To secure the long term claims, life insurers depend very much on attractive and inflation indexed investment possibilities. The picture for life insurance is still more favourable because the future of social insurance is changing.

The structural change will also continue within the insurance industry. Given the enactment of new insurance laws where needed, and the establishment of an effective supervision and regulation, the concentration of the markets will – first of all to the debit of still existing state monopolists – diminish. Beneficiaries will be the newly established insurance companies. The share of foreign-owned companies may also increase. The under-capitalization of some insurance companies will, however, lead to some bankruptcies.

The question is no longer whether or not to encourage the building up of an insurance sector. The establishment of insurance companies has already responded to the incentives of commercial profitability. The problems in the future may be due to factors such as under-capitalisation, lack of proper supervion and/or insurance legislation, and inadequate levels of technical experience. The last two points relate to the need for professional training in the field of insurance education. As can be said, the most valuable asset of an insurance company is the know-how of its personnel. However, general training is a public good with great externalities; therefore, firms are normally not prepared to finance training and education. This seems to be the task for the state or organization that can issue specific certifications, which, in turn, induce rational enterprises to agree to share the cost of professional qualification through specialized institutions and programmes. These institutions may also provide for the necessary training of the staff of the insurance supervisory authorities.

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