



Banking and the Financial Sector in Transition and Emerging Market Economies

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Robert B. K. Pye

The Evolution of the Insurance Sector in Central and Eastern Europe (CEE) and the Newly Independent States (NIS) of the former Soviet Union

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Robert B. K. Pye
Research Fellow
Emerging Markets Group
Faculty of Finance
Cass Business School, City University
London, United Kingdom

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Abstract

This paper examines the evolution of the insurance industry in the countries of Central and Eastern Europe (CEE) and the Newly Independent States (NIS) of the former Soviet Union between 1990-2001. The purpose of this paper is to redress the shortage of available research on the subject, problems with data accuracy evident in previous studies, and issues related to ‘insurance culture’ that have a direct effect upon the evolution of the insurance sector in the region. In doing so, the author utilizes various sources of data to examine the development of the insurance market in the region with respect to life and non-life coverage. Analysis of the data is made on the basis of insurance density rates; insurance penetration rates; and real average annual growth rates of premium income in relation to host country economic development (GDP). The author concludes that despite some concerted efforts, only a few host countries have been able to successfully transform their insurance markets in accord with international standards.

The Evolution of the Insurance Sector in Central and Eastern Europe (CEE) and the Newly Independent States (NIS) of the former Soviet Union

1 Introduction

Since the dramatic events of 1989 considerable attention has been directed at the nature and scope of the transformation process in the countries of *Central and Eastern Europe (CEE)*¹ and the *Newly Independent States (NIS)*² of the former Soviet Union. Most of this attention has been directed at the economic elements of transition. Indeed, there has been an abundance of literature on the subject from both practitioners and academics alike.

One key area of discussion has been on the development of the financial services sector in these transition economies. In fact, a great deal of interest has been given to the transformation of the banking industry, and to a somewhat lesser extent to the development of local capital markets. In contrast, only limited research has been conducted thus far on the third pillar of the financial services sector, namely the field of insurance.

Yet, this low level of interest in the insurance industry might well stem from its very nature. From the outsiders' perspective, the insurance sector is often far from glamorous. After all, some individuals find it difficult to get excited about an industry that uses terms like 'mortality rates'. Nevertheless, the fundamental role of insurance in the development of a dynamic market economy should not be underestimated (Albouy and Blagoutine, 2001; OECD, 1997; Skipper, 1997; EBRD, 1996).

It is important to recognize the sheer magnitude of the insurance industry. During 2001, the world insurance business generated premiums valued at just under \$2.4 trillion, of which North America accounted for 39.4%, Europe 31.7%, Asia 24.7%, and the rest of the world 4.2%.³ Given the nature of the insurance business, a great deal of this premium income is reinvested in local and international capital markets, which in turn makes insurers very significant institutional investors within the world economy.

Dr. Robert B. K. Pye, Research Fellow, Emerging Markets Group, Faculty of Finance, Cass Business School, City University, 106 Bunhill Row, London EC1Y 8TZ, England, United Kingdom. E-mail: RBKPYE@aol.com.

¹ The term *Central and Eastern Europe (CEE)* refers to the following countries: Albania, Bosnia-Herzegovina, Bulgaria, Croatia, Czech Republic, FYR Macedonia, Hungary, Poland, Romania, Serbia & Montenegro, Slovakia, and Slovenia.

² The term *Newly Independent States (NIS)* refers to the following countries: Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan. These same countries comprised the old republics of the *former Soviet Union (FSU)*.

³ See Birkmaier, U. and Codoni, C. (2002) *World insurance in 2001: turbulent financial markets and high claims burden impact on premium growth*, pp. 29.

This paper provides an overview of the development of the insurance industry in the countries of CEE and the NIS⁴ since the transition began (1989/91). The purpose of this paper is to redress the shortage of available research on the subject, problems with data accuracy evident in previous studies, and issues related to 'insurance culture' that have a direct effect upon the evolution of the insurance sector in the region. In doing so, special attention is given to those eight host countries (the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, and Slovenia) within the CEE and NIS groupings that have formally been invited to join the *European Union (EU)*, thereafter referred to as the *EU Accession Countries Eight (EU-AC8)*.

It should be noted that this paper is the first step in what is intended to be a comprehensive longitudinal study of the evolution of the insurance sector in CEE and the NIS that is intended to provide in-depth coverage of regional and individual host country markets.

The current paper is presented in six sections. In Section II, the author provides an overview of the relevant literature. Section III examines the factors affecting the level of 'insurance culture' exhibited by consumers, both business and private individuals, in CEE and the NIS. Section IV addresses issues pertaining to the data, including availability, reliability, and comparability. Utilizing the data available, Section V examines the evolution of the insurance market in CEE and the NIS between 1990-2001. Accordingly, attention is given to data on insurance premiums with respect to total premium income and its constituent elements, life and non-life insurance. Analysis of the data is made on the basis of insurance density rates; insurance penetration rates; and real average annual growth rates of premium income in relation to host country economic development (GDP). Finally, in Section VI, some conclusions are drawn along with the scope for future research.

2 An Overview of the Literature

As noted, the literature addressing the insurance sector in these transition economies since the events of 1989 has been rather limited and primarily originates from practitioner sources, notably from major Western European reinsurers, like Swiss Reinsurance (Swiss Re). Unfortunately, to date the academic community has made a minimal contribution to this very important third pillar of the financial services industry. Regardless, it is appropriate to examine some of the key literature in a chronological order so as to aid the reader in their understanding of how the insurance sector has evolved since the onset of the transition process.

In terms of the pre-transition period, Rogers (1986) and Rogers *et. al.* (1988) described the general state of the insurance sector with regard to the then Soviet Union and CEE respectively. Marbacher and Furrer (1990), in one of the first of many contributions from Swiss Re to this area of study, addressed the situation as events were unfolding in CEE, utilizing statistical data from the 1987-88 period. A unifying strand of these early studies was the authors' acknowledgement of the clear contrast in the design and application of insurance principles within the countries of

⁴ Please note that due to a lack of available data some of the host countries of the NIS grouping had to be excluded from this present study, namely Kyrgyzstan, Tajikistan, and Turkmenistan.

the East and those of the West, which effectively resulted in an 'insurance culture' gap between the two.

In terms of the development of the insurance sector in CEE and the NIS during the transition era, there have been a number of papers but again mostly from practitioners. Frinquelli *et. al.* (1991), which is a frequently cited paper written from the investment banking perspective⁵, presented an overview of the insurance market in CEE and the then Soviet Union at the outset of the transition period. As such, utilizing the limited information available the authors provided an extensive descriptive overview of the nature of the insurance system in the region in relation to its size, structure, product types available, modes of distribution, and overall performance to date. A focal point of the paper was on the role of Western (American and European) insurers already active within these transition economies as well as the potential for new entrants.

As part of their paper, Frinquelli *et. al.* provided a growth model for the insurance sector within the region, which was based on two main assumptions. First, a positive correlation exists between increases in national wealth and respective insurance penetration rates within a given host country. Secondly, the authors assumed that insurance penetration rates in the countries of CEE would reach convergence with EU levels within a 5-10 year period. However, the validity of such assumptions are questionable as they neglect the very nature of 'insurance culture' found in these countries, which as noted is a product of the insurance system that operated under the former communist economic model.

Regardless, based on their growth rate model, Frinquelli *et. al.* concluded that the Soviet Union represented the greatest growth potential within the region, although it was conceded that political instability had delayed much needed economic reform with little hope of improvement in the near future. The authors also viewed the market potential positively in the then Czechoslovakia, East Germany (GDR), and Poland, but were more pessimistic about opportunities in Romania and Yugoslavia due to a lack of concerted reform efforts in these countries.

Baur and Enz (1994), as part of the ongoing research efforts by Swiss Re in this area, identified a significant decrease in premium volume in most of CEE and the NIS between 1988-92. It was suggested that this decrease had resulted from of a number of factors: a fall in the local standard of living; high rates of inflation; unclear conditions of ownership and the varied pace of the privatization process; and the abolition of various compulsory types of insurance. However, despite these conditions, the authors concluded that future prospects in the insurance market for most of CEE, and to a much lesser extent in the NIS, were favorable. Baur and Hess (1995) advanced this same proposition further by using data from the 1993-94 period. Yet, the authors conceded that while growth rates in premium income had increased on average by 8% over the previous period against the worldwide average of just 6%, the insurance markets of CEE and the NIS were still extremely underdeveloped, representing less than 1% of the world market.

⁵ Frinquelli *et. al.* was written on behalf of the American investment bank Salomon Brothers.

An interesting aspect of Baur and Hess (1995), and promoted again by Hess *et. al.* (1996) was the proposition that a positive correlation exists between the level of per-capita income and insurance penetration, which is referred to as the S-Curve relationship. The authors contend that as GDP per capita increases expenditure on insurance products will also increase. However, again this relationship doesn't seem to factor in the influence of the low level of 'insurance culture' evident in CEE and to a greater extent within the NIS, an issue that is addressed in greater detail in the next section of this paper.

Meyer *et. al.* (1998), in one of the most comprehensive studies by Swiss Re to date, employed data from the 1996-97 period to examine the insurance market in CEE and some of the NIS. Meyer *et. al.* found that while the market share of the former state monopolies was eroding – as a result of increased competition from both local and foreign firms – they were able to retain their dominant position within the local market. The findings also supported the contention that in those host countries where foreign insurers were permitted to operate they were able to capture a significant share of the local market. This was noted to be the case in both Hungary and Latvia, and to a lesser extent in the Czech Republic, Slovakia, and Estonia. It was also shown that non-life insurance continued to be of greater importance than life cover. Moreover, it was stated that the former was being driven by strong activity in motor insurance, as it is in Western Europe. In regard to life insurance, the authors contended that local customers increasingly viewed this type of coverage to be a good form of investment, especially in those countries of CEE that were more economically stable. In addition, it was also presumed that the life insurance sector would benefit greatly from pending reforms in State pension systems.

On a related area of study, Rüstmann (2001) and Baur (2002), again on behalf of Swiss Re, have examined the impact of EU membership on specific EU-AC8. The former study outlining the progress to date in the insurance sector respective of possible EU membership while the latter has focused on the implications to the sector with regard to the specific EU-AC8 grouping. Baur's findings offer further evidence of divergence between these more advanced economies of CEE and the current EU member states. This would again support the point that an 'insurance culture' gap does indeed exist between East and West. Regardless, Baur quite logically asserts that this situation will result in greater competition within the local markets of the EU-AC8, which in turn will lead to further consolidation within the sector.

Based on the available literature it is clear that the insurance sector in the region has a great deal of potential but a number of issues continue to constrain its development. The main constraint being the low level of 'insurance culture' exhibited amongst various consumers, and in some cases providers and regulatory authorities. In regard to the EU-AC8 grouping, such issues are especially important given their implications for integration within the EU structure. Given the important role of 'insurance culture' in the development of the sector in CEE and the NIS, it is prudent to outline the nature of the insurance system as it functioned under the former communist system.

3 Insurance Culture in CEE and the NIS: Insurance À La Communism

In order to understand the dynamic nature of the current insurance system in CEE and the NIS it is vital to have an appreciation for how the system previously functioned. This is especially important in relation to understanding the factors behind the relatively low degree of 'insurance culture' exhibited by individual and business customers within these host countries (Aubrey-Jones, 1996a, 1996b; Faulkner, 2002).

Following the adoption of the *Stalinist* economic model across the Soviet Union during the 1920s⁶, the State assumed near complete control of all aspects of the economy. In CEE, the communist authorities enacted this program of nationalization during the late 1940s. Consequently, with regard to insurance activities the State became the sole provider and thus exerted a monopoly over the market.

In some instances the State operated a two-tier insurance system, one through a *State-owned enterprise (SOE)* that was responsible for handling all domestic insurance and another SOE that dealt with all forms of insurance requiring foreign (hard) currency due to the international nature of the coverage. For example, in the Soviet Union, *Gosstrakh (State Insurance)* was founded in 1921 to handle all domestic and international insurance business. However, in 1947 responsibility for international business was transferred to the newly created SOE called *Ingosstrakh (International State Insurance)*. In 1958, the State further refined the role of Gosstrakh by dividing the firm into separate operating units for each of the 15 Republics, although Gosstrakh retained central control of these via the Ministry of Finance.

A number of countries in CEE had also established similar two-tier systems, although some at a much later date than in the Soviet Union. For instance, in the fairly liberal yet communist Hungary, the State insurer was *Állami Biztosító (ÁB)(State Insurance)*, which had acted as the sole provider of both domestic and international insurance in the country since taking over these duties from the Ministry of Finance in 1954. In 1986, as part of further reform measures, the State enacted legislation that partially liberalized the country's insurance industry by removing ÁB's monopoly with the formation of a second State-owned insurer, *Hungária Biztosító (Hungarian Insurance)*. Government legislation specified that ÁB retain the bulk of the life insurance policies while Hungária took over the portfolios of foreign trade insurance, motor liability, and reinsurance accounts. Hence, these two State providers exercised duopoly control over the Hungarian insurance market.⁷

The situation in Yugoslavia is also noteworthy due to the complexity in which its own insurance system evolved. In Yugoslavia the State insurer was *DOZ (State Insurance Establishment)*, which was established during the 1940s to transact all

⁶ The exceptions to this were the three Baltic States (Estonia, Latvia, and Lithuania) and Moldova, which had their own insurance systems nationalized following their annexation by the Soviet Union in the 1940s.

⁷ For further details of the evolution of the Hungarian insurance market see Pye (1999) *Az Oroszlán visszatért Budapestre: A Generali csoport Magyarországon (A-D)*, pp. 59-92.

domestic and international insurance business. In the early 1960s DOZ's monopoly was abolished and replaced by 128 communal insurance establishments spread throughout the country. Poor performance and national interests led to the restructuring of the system during 1968 into 11 insurance and reinsurance firms based in each of the respective republics. Thereby creating two amalgamated insurer/re-insurers, two sole re-insurers, and seven sole insurers.⁸

In regard to international coverage, in CEE and the Soviet Union, the State provider offered insurance for foreign based construction projects, export credits, State property located on foreign territory, as well as marine and aviation cover. Furthermore, given the nature of these types of insurance and the associated risks involved they were placed on the international reinsurance markets, often via internationally known insurance brokers such as Lloyd's of London.

As for domestic insurance, the State provider offered customers both life and non-life products. Life insurance policies were widely available to citizens, usually through arrangements made between the State provider and the respective SOE employer. Under this system appropriate premium payments were simply deducted directly from the wages of those employees participating in the scheme. However, it should be noted that such policies were often very simplistic in nature and of limited value and utility. After all, given the knowledge that the State would always provide there was little need for such coverage.

Generally non-life policies focused on motor, household, as well as numerous compulsory types of insurance. Non-life policies were paid for in the same manner as life policies and they too were quite basic and of limited scope, especially given the reality of a continuous shortage economy experienced during the 1970-80s. In the case of motor insurance, which was a compulsory line, it tended to concentrate on the aspect of liability for many of the same reasons cited above. Most other types of non-life coverage were seen as non-essential under the communist system since the State guaranteed citizen's basic needs in terms of healthcare, education, employment, and pensions.

In addition, compulsory insurance, such as third party motor and agriculture related policies, had a very unique character. Although a number of forms of compulsory insurance are common in Western countries, in the People's Democracies of CEE and the Soviet Union these types of insurance were widely viewed as another form of taxation and subsequently were resented by the local population. This was despite the fact that such policies, especially agricultural ones, often generated heavy losses for the State provider.

It should be noted that compulsory insurance functioned in a way that was very different from what would be expected by Western insurers. In the West, compulsory insurance imposes an obligation on the individual to locate appropriate coverage and make premium payments for the policy to a provider. These payments are based upon a correlation between the type of coverage and the respective risks involved. Yet, this and other insurance concepts were interpreted quite differently in the

⁸ For further details on the evolution of the Yugoslav insurance market see Rajičić (1997) *Property and Personal Insurance*, pp. 75-90.

countries of CEE and the Soviet Union. There, the obligation to sell the policy and obtain the respective premium was the responsibility of the State's insurer agent and failure to collect it did not relieve the State of its responsibility to cover any losses that might arise. In the event of such a claim, the State would merely deduct the prescribed premium payment from the amount of the claim settlement.

Given the ownership structure of the SOE there was little need for commercial insurance coverage since the State replaced any losses incurred directly. The sole exception to this was commercial activities related to international operations, which were covered by the respective State provider for such services.

Overall, domestic insurance was controlled by the State provider, who established premiums at almost arbitrary levels for each of the few products it offered and for which the State was the sole underwriter. Therefore, premiums charged bore little correlation, if any at all, to the actual risks involved given the nature of the cover. Premium payments were used to offset both losses incurred via claims during the year and the operating expenses of the provider. Subsequently, surpluses from operations were absorbed by the State and deficits guaranteed by it. With respect to non-life products there was little or no attempt to estimate or provide for future liabilities that had not materialized during the course of the year.

Aubrey-Jones (1996b) sums up the overall situation, *"This inverse method of handling the business has left its influence on the way in which much insurance is bought and sold today. Many assureds, corporate as well as private, simply have not learnt their responsibility to go out and seek insurance protection. On the other side, among some of the insurers, the idea of formulating products their customers really want, and then learning to sell them is, in itself, still relatively novel."*⁹

In conclusion, the conditions under which the insurance system functioned for more than 40 years with regard to the countries of CEE, the three Baltic States, and Moldova, and some 70 years in the rest of the NIS, have had a fundamental impact upon the development of the sector. This is especially the case with regard to the low degree of 'insurance culture' currently exhibited by individual and business customers across the region. Accordingly, insurers, with the support of host country governments, face an uphill struggle to educate their respective pool of existing and potential customers on the merits of utilizing a Western style insurance system (Aubrey-Jones, 1996a). In that respect, some host countries have made progress, generally those that have shown signs of being more advanced in the process of transition. Unfortunately, the prognosis in other host countries is not as promising, as certain aspects of the insurance mechanism have been perverted for the purposes of what can be termed 'black business' activities, involving capital transfer, tax evasion, and insurance fraud.

Yet, this situation calls into question the generally held view that the insurance sector in CEE and the NIS will indeed evolve in conjunction with continued economic development, so as to a point of convergence with those found in the developed

⁹ See Aubrey-Jones, S. (1996b), *Developments in Eastern Europe – Part I*, pp. 398.

Western market economies (Faulkner, 2002).¹⁰ It also questions the validity of the S-Curve relationship between per-capita income and insurance penetration as it pertains to the context of CEE and the NIS (Pohl, 2000; Enz, 2000¹¹). Accordingly, this point, and others, is examined as part of the overview of the development of the insurance sector in CEE and the NIS between 1990-2001.

4 The Nature of the Data Set

The data set utilized in this study on insurance activity within CEE and the NIS between 1990-2001 originates from a variety of sources. Wherever possible the author has relied upon primary host country data collected from the respective insurance supervisory authority and/or local insurers' association. In cases where such data was not directly available, the author has relied upon other host country sources, as reported by AXCO Insurance Services, Swiss Re, and/or provided by other reinsurers. All data used in the study has been rigorously crosschecked to ensure accuracy, with a general reliance on primary host country sources. Individual host country data sources are stated in the acknowledgements section at the end of this paper.

In terms of additional data sources, all economic data utilized in this study is that reported by the European Bank for Reconstruction and Development (EBRD) via their *'Transition Report'* series. Data on host country populations is that reported by Euromonitor International via their *'European Marketing Data and Statistics'* series, with the exception of some host countries that rely on EBRD data.

In examining the data set it is important to note three interrelated and sequential concerns, namely data availability, reliability, and comparability. In general terms, the first two concerns are especially relevant to the early stages of the transition process while the third one is crucial to conducting any meaningful type of comparative analysis. Accordingly, each of these three interrelated concerns is now briefly discussed.

4.1 Data Availability

As with any research effort, the availability and accessibility of data is the essential enabling factor for any analysis. This is also the case with regard to examining the availability of data for insurance activities within the countries of CEE and the NIS. In fact, many of the countries of CEE, and a few of the NIS, have established facilities for data collection, analysis, and reporting primarily on the basis of EU standards. This is especially the case for the EU-AC8 grouping, although there do remain some issues of harmonization. In the case of other host countries, notably those in the NIS

¹⁰ Faulkner (2002) developed this same proposition independently referring to the positive correlation between economic development and increased insurance penetration rates as the 'teleological view', which he cites lacks validity in the context of countries of CEE and the NIS due to cultural and social issues that differentiate East and West.

¹¹ Enz (2002) used panel data from a diverse group of host countries to examine the S-Curve relationship. In the context of CEE and the NIS, only Croatia (non-life), Latvia (life & non-life), Poland (life & non-life), and Russia (non-life) were examined. Enz's results for these host countries were quite mixed.

grouping, these same standards are clearly lacking and basic data on insurance activity continues to be either unavailable or suffers in terms of its reliability.

4.2 Data Reliability

On that note, it has often been stated that data accuracy in CEE and the then Soviet Union suffered as a result of the nature of the command style economy as practiced under the communist system. In many instances the fabrication of data was common practice as individuals sought to placate the power structure by satisfying the objectives set out in the State's plan. After switching to a market economy, this practice has been continued in some host countries to varying degrees, either by underestimating results as a means of alleviating tax burdens or overestimating in order to take advantage of certain elements of the insurance mechanism. Furthermore, the very nature of the system of reporting data – voluntary or mandatory – has also contributed to this situation. Regardless, the end result is that this type of distortion calls into question the reliability of the data reported in some host countries, especially in respect to the rather more chaotic early years of the transition period.

Another factor affecting data reliability was the fact that the State insurance provider(s) operated as a direct extension of the Ministry of Finance. As noted, in effect the State covered any losses as well as absorbed all profits on an annual basis. Thus, the insurance system in CEE and the NIS was more a matter of rationalized bookkeeping than a valid risk assessment exercise. As such, it is conceivable that data was subjected to some manipulation as well as suffering from a general lack of proper attention given its low-level economic priority.

4.3 Data Comparability

In conjunction with the previous two concerns, the third point of data comparability is essential with regard to being able to compare the host country specific data, i.e. benchmark it against other host countries. Accordingly, prior to examining the actual data set there are a number of factors that need to be addressed.

First, is the very basic issue of what actually constitutes the term 'premium income'? In that regard, there is some degree of variance on the reported data due to technical differences. To be specific, host countries report total premiums in a variety of ways, such as written premiums with reinsurance excluded, written premiums with reinsurance included, and direct insurance with reinsurance accepted. Hence, there is a certain degree of volatility within the host country data presented due to these different means of reporting. However, wherever possible the data used in this study has been based upon written premiums with the reinsurance element excluded.

Secondly, and very much related to the previous point, is the use of different means of classifying premiums within the respective life and non-life branches. The countries of CEE, especially the EU-AC8 grouping, have generally adopted EU standards of reporting insurance activity, which is in line with international standards of breaking life and non-life cover down into its various components. However, this is still not the case with regard to many of the NIS, where the old Soviet system of classifying insurance into compulsory and voluntary classes blurs the lines of

coverage. The result of this practice is generally to understate the amount of premium income for non-life insurance while overstating the value related to life insurance cover.

The third point involves the high degree of economic volatility experienced by the host countries of CEE and the NIS as part of the process of transition, which in terms of the data set represents the first half of the period covered (1990-1995). In fact, a simple review of inflation rates based on average annual consumer prices during the 1990-95 period reveals high rates of inflation, and in a number of cases hyperinflation. In terms of specific average rates of inflation during this period, CEE achieved a rate of 325%¹², the three Baltic States 253%, and the remaining NIS 1,285%. The EU-AC8 grouping did somewhat better with an average for this six-year period of 139%.

Please note that this high degree of economic volatility has also had a profound impact on exchange rates, making any transposition of nominal growth rates in local currencies using a common denominator, such as US dollars, highly problematic.

However, the situation in most host countries has improved in the post-1995 period, where inflation rates have generally stabilized to more acceptable levels. In fact, average rates of inflation during the 1996-2001 period by groupings was 33% for the CEE, 7.5% for the Baltic States, 31% for the NIS, and 8.9% for the EU-AC8. It should be noted that within the CEE grouping, most of this volatility could be attributed to a few host countries. For example, Bulgaria's rate of inflation hit its highest peak to date with 1,082% in 1997. In the case of Romania and Serbia & Montenegro, these two countries had average annual rates of inflation of 63% and 56% respectively between 1996-2001. In the case of the NIS, while Russia, Ukraine, and Uzbekistan have each experienced double-digit inflation rates, the situation in Belarus continues to be problematic with an average annual rate of inflation of 116% for the period.

Given the severity of economic volatility experienced in CEE and the NIS between 1990-95, it is appropriate to devote more attention to the data from the 1996-2001 period. Moreover, this latter period is also more reflective of the actual development of the insurance sector since the onset of the transition process.

5 The Insurance Market in CEE and the NIS (1990-2001)

5.1 The Market in Transition (1990-93)

At the start of the transition process (1990-93) hopes were high that some of the countries of CEE, and possibly even some of the NIS, would be able to transform their systems to a Western standard within a relatively short period. In fact, some over optimistic pundits were predicting that certain countries in the region would be able to catch-up to economic levels of the West within a decade. However, such

¹² Please note that the inflation rate for Serbia & Montenegro in the 1993 period has not been used in this calculation since it was the highest inflation in recorded history, estimated at around 116 trillion percent.

expectations soon proved unfounded, as the true immensity of the economic, political, and social transition became apparent.

While outside of the related scope of this paper, it is worth noting some key aspects of the transition process.¹³ Shortly after the reforms began, economic conditions within these countries deteriorated rapidly. More specifically, there was a sharp decline in industrial production; high rates of inflation, and in some cases even hyperinflation; new market exchange rates replaced State controlled ones; and a drastic decline in gross domestic product (GDP). Yet, with hindsight, this was probably inevitable given the collapse of the CMEA¹⁴ trading zone as well as the sudden demise of central planning, both of which formed the foundation that these command economies rested.

These conditions also had a major impact upon the insurance sector in CEE and the NIS. In fact, as reform efforts got underway in the countries of CEE (1990-92) and the NIS (1991-93), there was a sharp decline in the level of both insurance premiums and volume. Pohl (2000), of Munich Re, has postulated that during this period premium income in most of CEE contracted by as much as 45% while the countries of the Balkans and Russia experienced more than a 70% reduction. Pohl contends that during the same period only Poland and Slovenia were able to show a positive increase in premium income, which he contributed to an initially low base level as well as strong growth in the life insurance sector.¹⁵

However, such estimates should be treated with a degree of caution given the aforementioned issues of data availability, reliability, and comparability. Given this situation, it is essential that each of these three concerns be addressed in any review of data on the insurance industry in CEE and the NIS.

5.2 The Size and Potential of the Market

Exhibit 1 displays the data available on premium income in local currencies for CEE and the NIS between 1990-2001. In terms of data availability, a visual inspection reveals that there are a number of gaps in the information available for specific host countries, which coincide with the early phase of the transition process (1990-93).

Despite such shortcomings, the data presented in **Exhibit 1** does provide us with some interesting insights into how the insurance sector in CEE and the NIS has developed since the onset of the transition process. For example, it would seem that the insurance industry in CEE experienced some significant adjustments between 1990-92. These adjustments resulted in a contraction of premium income for both the Czech Republic and Slovakia in 1991 and for Hungary in 1992. Alternatively, on the surface, it would appear that Poland, Romania, and Slovenia each experienced a

¹³ The paper by Wyplosz (2000) provides a good overview of the transition process in CEE and the NIS.

¹⁴ At the start of 1991, with the dissolution of the Soviet Union, *The Council for Mutual Economic Assistance*, or COMECON as it was more often referred to in the West, was effectively abolished.

¹⁵ See Pohl (2000) *Changing Insurance Products for the Changing Markets – Aligning Insurance Products with Economic Growth*, pp. 3.

positive rate of growth in premium income from the outset of the transition. If this assumption is correct then it would lend support to Pohl's (2000) earlier point of the growth rates achieved in both Poland and Slovenia during the early phase of the transition period.

Yet, this statement is problematic for a variety of reasons. First, the transition process did not start at the same time and in the same manner in each host country. Secondly, an examination of nominal growth rates in local currencies could be distorted by high rates of inflation that associated with the transition process. Hence, host countries with a high inflation rate may show a positive rate of growth, while when adjusted for inflation they might actually show a decline or be flat.

In order to get a complete and accurate picture of the evolution of the insurance industry in CEE and the NIS between 1990-2001 it is necessary to utilize a number of forms of analysis, namely: insurance density rates; insurance penetration rates; and a comparative analysis in real terms of both average annual growth rates of premium income versus host country economic development (GDP). Therefore, it is appropriate to discuss each in the order presented.

a. Insurance Density Rates

Insurance density rates measure premium volume in relation to a host country's own population, i.e. how much money per capita is spent annually on insurance related products. This measure is a useful indicator, as host country populations generally remain constant over short periods, although in the case of CEE and the NIS, their population levels have generally been flat or in a number of cases gradually decreasing over time.

For comparison sake, premiums have been converted into a common denominator, in this case US dollars. As such this measure is subject to possible deviations stemming from fluctuations in exchange rates. **Exhibit 2a** provides a profile of density rates for total insurance activity in the host countries of CEE and the NIS between 1990-2001. **Exhibit 2b** and **2c** present similar data for the life and non-life insurance branches respectively.

In terms of analysis, as noted there was a great deal of economic volatility during the early phase of the process of transition represented by the period 1990-1995. Given this situation, the author has elected to base the analysis on three specific time periods, namely a six-year (1996-2001), eight-year (1994-2001), and twelve-year (1990-2001) spread. Individual averages were calculated for the total, life, and non-life elements based on these three time periods. These averages were then plotted against one another using a multiple line chart to identify the trends and respective groupings of host countries. For the purposes of grouping and to minimize the impact of economic volatility, the six-year (1996-2001) period was used as a base line while ensuring that the data from the other two periods also fell within the bands identified.

In regard to the data presented in **Exhibit 2a**, the analysis reveals a number of host country groupings¹⁶ that can be classified into six levels of activity based on total insurance spending per capita, as follows:

Group One (Less than \$8.00 per capita): Armenia (\$.069), Uzbekistan (\$.077), Georgia (\$1.24), Azerbaijan (\$1.65), Kazakhstan (\$3.42), Moldova (\$3.97), Albania (\$3.99), Belarus (\$6.32), and Ukraine (\$6.54).

Group Two (\$8.00 – 29.99 per capita): Romania (\$11.61), Bulgaria (\$20.74), Bosnia-Herzegovina (\$23.79), and Lithuania (\$25.20).

Group Three (\$30.00 – 49.99 per capita): Serbia & Montenegro (\$33.69) and the Russian Federation (\$44.00).

Group Four (\$50.00 – 99.99 per capita): the FYR Macedonia (\$51.82), Latvia (\$54.86), and Estonia (\$59.42).

Group Five (\$100.00 – 349.99 per capita): Slovakia (\$104.50), Poland (\$112.27), Hungary (\$119.73), Croatia (\$130.33), and the Czech Republic (\$168.72).

Group Six (More than \$349.99 per capita): Slovenia (\$454.30).

An examination of the data suggests that insurance density rates in a number of host countries have increased during the 1990-2001 period. With the notable exceptions of the FYR Macedonia and Serbia & Montenegro, each of the countries of CEE and NIS has shown improvement during this period. A few host countries have even been able to demonstrate continuous growth rates over the period.

In the context of CEE, Poland was the only host country able to maintain a continuous positive rate of growth in relation to insurance density for the entire 1990-2001 period, with an annual average of \$76.77 per capita. Since 1993 it would appear that Romania has also been able to maintain positive growth but with a very low annual average per capita spending of just \$8.91. Yet, serious economic volatility in the country that occurred between 1991-94 would seem to be a mitigating factor. In the case of the Czech Republic, with the exception of 1990 and a slight flattening between 1999-2000, this country also appears to have achieved positive growth, and with a higher annual average of \$125.16 per capita. Slovenia, after experiencing a plateau in its density ratings between 1991-93 as well as a slight drop off in 2000, has also shown positive growth. Moreover, it would seem that Slovenia has consistently had the highest density rating across the CEE and the NIS groupings.

In the NIS, only Estonia, Armenia, and Georgia posted continuous growth between 1990-2001. However, in regard to Armenia and Georgia, a lack of data meant this was based on a much shorter period of analysis and with per capita spending at very low levels of activity, with \$0.69 and \$1.24 respectively.

¹⁶ Please note that for Uzbekistan specific data on life and non-life cover is not available. In the case of Armenia, there was no life insurance activity reported during the period covered.

In comparative terms, as of 2001, only Slovenia, with an insurance density of \$482 per capita for its population of nearly two million, has been able to achieve density levels comparable to EU member countries. Yet, this is mostly on the basis of non-life cover, which accounted for almost 82% of the total figure. The situation in the Czech Republic has also shown promise, with a density rate of nearly \$207 achieved in 2001 for its population of nearly 10.3 million, and with a somewhat better balanced distribution between life and non-life cover at 35% and 65% respectively.

In contrast, according to Swiss Re data¹⁷, Switzerland with a population of 7.2 million achieved a density rate of \$4,343 per capita in 2001, which positioned the country as the world leader. Of this amount, 62.5% was spent on life insurance products and the remaining 37.5% on non-life. Of course, it is well known that the residents of Switzerland possess a high level of insurance culture. In contrast, Greece, which has a much lower insurance culture but a larger population of 10.6 million, the density rating for 2001 was just under \$223 per person. From this amount, the Greeks spent 49% on life insurance and 51% on non-life cover. It should be noted that this represented the lowest insurance density rating for the whole of the EU.

In respect to all country groupings, the average insurance density rate per capita for total insurance related products during the 1996-2001 period was \$102.96 for CEE and \$17.21 in the NIS. With further extrapolation, the three Baltic States achieved a density rate of \$46.49 while the remaining NIS equated to just \$7.62. The EU-AC8 as a whole achieved a better average level of \$137.38 per capita spending on insurance.

In comparison, within the EU in 2001 the annual average per capita spend on insurance products was \$1,678.94 per capita. Accordingly it would seem clear that there is a definite gap between density ratings in Western Europe and those found in CEE and even a greater gap with respect to the NIS. The real challenge therefore remains whether or not this gap can actually be closed over time, which given the implications is especially relevant to the host countries of the EU-AC8 grouping.

Employing the same methodology to the density rates for life insurance data, as shown in **Exhibit 2b**, also yields six groupings but with much lower levels of activity in respect to spending per capita. These host country groupings are as follows:

Group One (Less than \$0.50 per capita): Georgia (\$0.02), Azerbaijan (\$0.03), Kazakhstan (\$0.03), Albania (\$0.13), Ukraine (\$0.13), Belarus (\$0.15), and Serbia & Montenegro (\$0.22).

Group Two (\$0.50 – 2.99 per capita): the FYR Macedonia (\$0.55), Bosnia-Herzegovina (\$1.30), Moldova (\$1.47), and Romania (\$1.53).

Group Three (\$3.00 – 9.99 per capita): Bulgaria (\$3.07), Lithuania (\$4.75), Latvia (\$5.68), and Estonia (\$9.47).

¹⁷ See Birkmaier, U. and Codoni, C. (2002) *World insurance in 2001: turbulent financial markets and high claims burden impact premium growth*, pp. 34.

Group Four (\$10.00 – 24.99 per capita): the Russian Federation (\$15.09) and Croatia (\$18.50).

Group Five (\$25.00 – 49.99 per capita): Slovakia (\$36.41), Poland (\$39.01), and Hungary (\$46.52).

Group Six (More than \$49.99 per capita): the Czech Republic (\$51.48) and Slovenia (\$83.44).

The low density rates shown above confirm that the life insurance sector has not only yet to takeoff in any great way within the countries of CEE and NIS but that it has also yet to take firm root in many of them. Of course this should not be all that surprising given that under the former communist system life insurance was often viewed by consumers as a non-essential product given the dynamic role of the State. Yet, this is not to underestimate the tremendous progress that this relatively new product offering has made within certain host countries in the region.

From the countries and period examined, only nine have actually made a fair degree of progress in the life sector. The situation has been made more difficult by high economic volatility in most of the region that has continued to play havoc with consumers and providers alike. For consumers, this has not only had an adverse effect on their ability to buy life insurance but also the economic utility of such policies given high rates of inflation. The latter issue has also been a fundamental problem for providers, especially in light of the very limited range of investment opportunities available to them in the respective host countries.

For the more economically stable 1996-2001 period, average annual density rates for life insurance were only \$23.51 in CEE, \$6.63 for the three Baltic States, and a mere \$2.42 for the other members of the NIS grouping. Even the EU-AC8 fared only slightly better overall, with an average of \$34.60 per capita spending on life products.

With regard to specific host countries, the situation found at the end of 2001 is somewhat more promising, where both the Czech Republic and Slovenia achieved a life insurance density rating of \$51.48 and \$83.44 respectively.

However, to put this into perspective, the average density rating for life insurance within the EU in 2001 stood at approximately \$1,059 per capita. This equates to well below the level found in Belgium at \$1,550, but quite above that of Italy with \$721 per capita annual spending on insurance products. In addition, for the entire EU the highest density rating in 2001 could be found in the very insurance conscious United Kingdom at just under \$2,568, while the lowest level was in Greece with around \$109 per capita spending on life insurance products.

Based on the data analyzed for CEE and the NIS, it seems apparent that the entire life insurance concept still requires a great deal more focus, especially the need for providers to better educate potential customers, in what should be a typical push-pull equation. In fact, for life insurers operating within the region this represents one of their greatest challenges, and one that will surely prove to be resource intensive.

An analysis of the data in **Exhibit 2c** reveals six host country groupings for the non-life insurance segment, which are as follows:

Group One (Less than \$5.00 per capita): Armenia (\$0.69), Georgia (\$1.23), Azerbaijan (\$1.61), Moldova (\$2.50), Kazakhstan (\$3.89), and Albania (\$3.93).

Group Two (\$5.00 – 19.99 per capita): Belarus (\$5.74), Ukraine (\$6.41), Romania (\$10.08), and Bulgaria (\$17.67).

Group Three (\$20.00 – 34.99 per capita): Lithuania (\$20.45), Bosnia-Herzegovina (\$22.49), the Russian Federation (\$28.91), and Serbia & Montenegro (\$33.47).

Group Four (\$35.00 – 54.99 per capita): Latvia (\$49.18), Estonia (\$49.95), and the FYR Macedonia (\$51.28).

Group Five (\$55.00 – 99.99 per capita): Slovakia (\$68.08), Hungary (\$73.21), and Poland (\$73.26).

Group Six (More than \$99.99 per capita): Croatia (\$111.83), the Czech Republic (\$117.24), and Slovenia (\$370.86).

It should be noted that motor insurance, both *motor third party liability (MTPL)* and *motor own damage (Casco)*, have been significant contributors to premium income generated by the non-life branch. In an extreme case, in Bosnia-Herzegovina as much as 90% of non-life insurance activity during the period stemmed from motor insurance, primarily MTPL, while thus far life products have generated very little local interest.

In general, the reliance on motor insurance coverage has been a direct result of increased car ownership within the region and the corresponding need for such coverage, which has generally remained compulsory in nature. Yet, with regard to MTPL, the compulsory nature of this type of insurance has also created a situation whereby host country governments have set premium rates, which in the opinion of the many local insurers have been set at artificially low levels that do not reflect economic reality of the operating environment.

That said, many insurers view compulsory MTPL coverage as a means of introducing consumers, notably private individuals, to their more extensive lines of life and non-life insurance products. Yet, it remains to be seen whether this will prove to be an effective means of educating consumers on the merits of a Western style insurance system, and thereby increase the level of local insurance culture. For many insurers operating in CEE and the NIS it is also proving to be a costly education program, since for reasons already cited MTPL is often a marginal line of business, and in a number of cases actually unprofitable.

In regard to overall non-life activity, what is promising is the fact that on the basis of year-end data for 2001 a total of three host countries from CEE – Slovenia, the Czech Republic, and Croatia – have actually achieved density ratings that positioned

them in line with EU member countries. Although it should be noted that in the case of both the Czech Republic and Croatia, this was at the tail end of the grouping, above and below respectively the rather low level set by Greece of nearly \$114 per capita spending. While Slovenia, with a density rate of \$379.28, positioned itself above Greece and Portugal, both of which have a population more than five times greater in size.

In terms of the host country groupings, during the 1996-2001 period CEE achieved an annual average density rate of \$79.45, the Baltic States were at \$39.86, and the remaining NIS at \$6.37. Once again, the EU-AC8 had the highest density rate for the period with \$102.78 per capita spending on non-life cover.

In comparative terms, the average density rate for the EU in 2001 was \$620. Yet, what is more interesting to note is the differences in the distribution of life and non-life coverage between the EU and the countries CEE and the NIS. To be specific, in 2001 life insurance activity accounted for 63% of overall EU activity and non-life only 37%. In contrast, even in the more economically advanced EU-AC8 grouping the distribution favors non-life with 75% of the total, and with life the remaining 25%.

As noted earlier, insurance density rates are subject to exchange rate volatility, which could partially explain some host country differences. Moreover, because purchasing power generally differs between host countries, as do the costs associated with various insurance products, this too could account for host country differences. Given this situation it is necessary to evaluate premium income levels in relation to another host country measure, namely GDP, which is utilized to calculate insurance penetration rates.

b. Insurance Penetration Rates

Insurance penetration rates measure insurance activity in terms of premium volume as a share of GDP. As such, it measures the significance of the insurance industry in comparison to a country's total domestic economic activity. It is a useful measure because it is not affected by currency fluctuations as the calculation utilizes only the national currency with respect to both premium income and GDP. **Exhibit 3a** provides insurance penetration rates for countries within CEE and the NIS between 1990-2001. Penetration rates for both the life and non-life segments are presented in **Exhibit 3b** and **3c** respectively.

As was the case in examining insurance density rates, again three specific time periods have been relied upon to analyze the data on penetration rates, namely a six-year (1996-2001), eight-year (1994-2001), and twelve-year (1990-2001) spread. On this basis, individual host country averages were calculated for the total, life, and non-life elements, which were then plotted utilizing a multiple line chart for each category. This process identified the main trends and respective host country groupings. Due to aforementioned concerns about economic volatility the most recent six-year (1996-2001) period was used as a base line for the grouping process while ensuring that the data from the other two periods also fell within the bands identified.

Based upon the data presented in **Exhibit 3a** and subsequent analysis, five host country groupings¹⁸ can be identified based on total insurance activity as a percentage of GDP, which are as follows:

Group One (Less than 1%): Armenia (.11%), Georgia (.21%), Uzbekistan (.28%), Kazakhstan (.25%), Azerbaijan (.31%), Albania (.41%), Belarus (.49%), Romania (.7%), Ukraine (.87%), Lithuania (.88%), and Moldova (.96%).

Group Two (1.0 – 1.99%): Bulgaria (1.44%) and Estonia (1.71%).

Group Three (2.0 – 2.59%): Bosnia-Herzegovina (2.02%), Latvia (2.08%), the Russian Federation (2.09%), Serbia & Montenegro (2.36%), and Hungary (2.52%).

Group Four (2.6 – 2.99%): the FYR Macedonia (2.76%), Poland (2.81%), Slovakia (2.81%), and Croatia (2.97%).

Group Five (More than 2.99%): the Czech Republic (3.15%) and Slovenia (4.75%).

Overall, a review of the data shows that while insurance penetration rates have predominately increased during the period there have been fluctuations in a number of host countries, some of which could be viewed as slight hiccups in the growth process.

Furthermore, by the close of 2001 a number of individual host countries – Belarus, Croatia, the FYR Macedonia, and Romania – had still yet to surpass their peak penetration rates experienced at the beginning of the period. For example, the penetration rate for Romania was .90% in 1990, and fell to a low of .23% in 1993, after which it has gradually recovered but with very a small rate of growth. However, by 2001 the rate achieved had risen to only .89%, which was just below its peak for the period. Thus, despite over a decade of hard work by insurers active in the Romanian market it would seem that very little progress has been made to develop the sector. It would also seem that this is the result of a combination of the high degree of economic volatility experienced during the period as well as the very low level of insurance culture exhibited by the local population.

It is also interesting to examine the degree of correlation between both total insurance density and penetration rates with respect to the aforementioned host country groupings. For the market leaders in CEE and the NIS there is a positive correlation between the groupings identified by the two forms of analysis. In fact, the case for the top rankings of Slovenia, the Czech Republic, Croatia, Slovakia and Poland is clear, and to a lesser degree with respect to Hungary. An interesting abnormality can be found between the two groupings in respect of the FYR Macedonia, with a favorable penetration rate but a much lower positioning in terms of the density rate achieved.

¹⁸ Again, please note that for Uzbekistan data on life and non-life cover is not available. In the case of Armenia, there was no activity in the life sector reported during the period covered.

As for the middle grouping, here the picture becomes somewhat less clear, although there does seem to be positive correlation between density and penetration rates for the Russian Federation, Latvia, and Serbia & Montenegro. For both Bosnia-Herzegovina and Estonia the degree of variation in the rankings between the two forms of analysis is somewhat more pronounced.

For those host countries forming the lowest grouping with respect to both density and penetration rates, there is a clear positive correlation between the two forms of analysis in the case of Armenia, Georgia, Uzbekistan, Kazakhstan, Azerbaijan, Albania, Belarus, Moldova, and Ukraine. The situation for both Romania and Lithuania is less clear. As for Bulgaria, there is a positive correlation between the two means of analysis, although this places the country within a slightly higher band of activity for both.

In regard to specific host country performance, between 1996-2001 the highest average annual insurance penetration rate for CEE and the NIS was again found in Slovenia, with total premium activity at 4.75% in relation to GDP. Just below this level there was a rather tight grouping for the Czech Republic (3.15%), Croatia (2.97%), Slovakia (2.81%), Poland (2.81%), and the FYR Macedonia (2.76%).

Yet, by the close of 2001 the situation had changed somewhat, with five host countries – Poland, the Russian Federation, Slovakia, the Czech Republic, and Slovenia – above the 3% of GDP threshold. Again, Slovenia was well ahead of other host countries with a penetration rate of 5.04%, with the Czech Republic next with a rate of 3.74% of GDP.

In comparison, according to data reported by Swiss Re¹⁹ the penetration rate for total insurance activity in Switzerland during 2001 was 12.71% of GDP. This placed Switzerland third in the world for penetration rates for the year, just behind South Africa (17.97%) and the United Kingdom (14.18%). In relation to other EU member countries, Greece yielded the lowest penetration rate in the group with 2.04%. At this level of penetration 10 out of the 24 host countries within CEE and the NIS achieved comparable rates of penetration in line with the bottom level of activity within the EU. Regardless, the next country up the scale was Luxembourg with a rate of 3.34% of GDP, which was only surpassed by the Czech Republic and Slovenia.

The average annual penetration rates for 1996-2001 present an even starker picture. The average annual penetration rate achieved for CEE was 2.39%, while in the NIS grouping as a whole it was just .85%. The three Baltic States again fared better as a sub-group thereof, with a rate of 1.18%. In regard to the EU-AC8, the average annual penetration rate was only 2.59% of GDP for the period. Moreover, even based on the average of the data for 2001, the penetration rate for the EU-AC8 had only increased to 2.84%, of which the life insurance branch amounted to just .84% while non-life cover was predominate with 2% of the total.

In contrast, in 2001 the EU posted an average annual penetration rate of 7.26%, of which 4.58% was accounted by life insurance activities and the other 2.68% for non-life cover. While headway has been made in respect of the non-life segment the

¹⁹ See Birkmaier, U. and Codoni, C. (2002) *op. cit.*, pp. 35.

penetration rates differential between the EU and CEE and the NIS for life insurance is quite pronounced.

Based on this evidence, the earlier assertion made by Frinquelli *et. al.* (1991) that insurance penetration rates in the countries of CEE would reach convergence with EU levels within a 5-10 year period has not only proven to be unfounded but is also clearly a case of misplaced optimism. In varying degrees, this is also applicable with regard to a number of other studies that have thus far failed to factor in the dynamic role that the level of insurance culture plays in the development of the insurance sector in the countries of CEE and the NIS.

More importantly, this evidence would also seem to further the case against the established view asserted by Frinquelli *et. al.* (1991), Pohl (2000), Enz (2000), and many others who claim a positive correlation exists between per-capita income and insurance penetration within a given host country. At least this would seem to be the case within the context of CEE and the NIS, which would support the position proposed by the author as well as independently by Faulkner (2002).

In terms of insurance penetration rates the life sector, an analysis of the data in **Exhibit 3b** yields four specific host country groupings, namely:

Group One (Less than 0.15%): Kazakhstan (.0024%), Georgia (.0027%), Albania (.005%), Azerbaijan (.006%), Belarus (.011%), Ukraine (.015%), Serbia & Montenegro (.016%), the FYR Macedonia (.03%), Romania (.09%), and Bosnia-Herzegovina (.1%).

Group Two (0.15 – 0.299%): Lithuania (.17%), Bulgaria (.22%), Latvia (.23%), and Estonia (.27%).

Group Three (0.3 – 0.799%): Moldova (.33%), Croatia (.42%), and the Russian Federation (.76%),

Group Four (More than 0.799%): Slovenia (.87%), the Czech Republic (.96%), Hungary (.98%), Poland (.98%), and Slovakia (.98%).

Based on this analysis, the situation in the first tier grouping looks quite bleak, since it is clear that the life insurance sector has yet to take hold in the respective host countries in any significant way. Again, a combination of high economic volatility and low insurance culture are no doubt major factors affecting the development of the life sector in these host countries. This is also applicable to those host countries associated with the second banding but with a more stable economic component evident in recent years.

In regard to the last two groups identified, it would initially appear that the life sector does indeed show some signs of positive movement in relation to the level of host country activity. However, for some of these host countries looks can be quite deceiving.

To be specific, at first glance it would seem that the life insurance sector is rather buoyant in both the Russian Federation and Moldova. Yet, in the case of Russia the

data on life insurance activity is rather misleading, as it has been estimated that as much as 99% of activity in life insurance stems from various tax avoidance schemes.²⁰ As for the situation in Moldova, one must bear in mind the severe economic conditions in that country that has greatly reduced the real value of life policies and subsequently led to an upsurge in policy surrenders. Moreover, the Moldovan life insurance market is extremely small in terms of gross premium income levels and therefore more comparable with the insurance markets of Albania and Belarus.

That said the situation in the remaining CEE host countries in this grouping – Croatia, Slovenia, the Czech Republic, Hungary, Poland, and Slovakia – do show positive signs of growth with regard to the life insurance segment. Yet, what is interesting to note is that in relation to the 1996-2001 data the latter four host countries concerned would seem to have reached a plateau with an average annual penetration rate of around .96-.98%. In addition, while in both the Czech Republic and Slovakia the life sector has grown consistently since the early 1990s, the same is not true of either Hungary or Poland, where the life sector has actually contracted in recent years.

Thus far, the contribution of the life sector to overall insurance activity has been very minimal. Between 1996-2001 the average annual penetration rate in CEE reached only .47% and the NIS with a mere .16%. As a group, the three Baltic States performed only slightly better with a rate .25%. The EU-AC8 grouping had an average annual penetration rate of .68% for the period. On the basis of 2001 data alone, the EU-AC8 rate had further improved to nearly .84%. Yet, as already noted, this sharply contrasted with the EU's average annual penetration rate of 4.58% for life insurance in the same time frame. It is also clear that to date none of the countries of CEE or the NIS look set to achieve comparable penetration rates, which doesn't bode well for the future development of the life insurance sector.

Despite the aforementioned issues constricting the development of the life sector, the situation in respect of the non-life branch is much more promising. An analysis of non-life insurance penetration rates data in **Exhibit 3c** reveals four main host country groupings, as follows:

Group One (Less than 1%): Armenia (.11%), Georgia (.21%), Kazakhstan (.29%), Azerbaijan (.31%), Albania (.41%), Belarus (.44%), Romania (.61%), Moldova (.63%), Lithuania (.71%), and Ukraine (.86%).

Group Two (1.0 – 1.59%): Bulgaria (1.22%), the Russian Federation (1.33%), Estonia (1.45%), and Hungary (1.55%),

Group Three (1.6 – 1.99%): Slovakia (1.83%), Poland (1.84%), Latvia (1.85%), and Bosnia-Herzegovina (1.91%).

²⁰ Both Ruf-Fiedler (1998) and AXCO (1999a) have previously made this point in their own individual reports on the nature of the life insurance market in Russia.

Group Four (More than 1.99%): the Czech Republic (2.19%), Serbia & Montenegro (2.34%), Croatia (2.55%), the FYR Macedonia (2.73%), and Slovenia (3.87%).

As previously noted, much of the premiums generated in the non-life segment stem from motor insurance policies. This was the case in most of those host countries achieving the market leader position that comprise the latter two bands of average annual penetration activity between 1996-2001. Interesting exceptions to this could be found in Serbia & Montenegro, Croatia, and the FYR Macedonia, where property insurance was the primary contributor to premiums in the non-life branch.

Given the general over reliance on motor insurance within the non-life segment, the key question is whether this type of activity will actually propel the market forward, exposing customers to other insurance products, or will it prove a costly detour where low premium rates adversely affect the profitability of insurers that will in turn further hamper the development of the market. The answer to this question is important given the obvious impact it will have on the future of insurance in CEE and the NIS.

In terms of specific host country groupings, the average annual penetration rate during 1996-2001 was 1.92% for CEE, .93% for the three Baltic States, and .52% for the other NIS. The rate for the EU-AC8 was 1.91%, which was just below that of the CEE grouping. Yet, as of 2001 both the CEE and the EU-AC8 had reached near parity at an average penetration rate of 2%. In comparison, the EU rate for 2001 stood at 2.68%, with the low for the group of just 1% found in Greece and with a high of 4.12% in the Netherlands. Regardless, the EU-AC8 and CEE average penetration rate of 2% for 2001 places them above the levels found in three other EU member states, namely Greece, Finland, and Sweden.

In summary, the data expressly shows the dominance of the non-life sector over life. It is also apparent, that in the countries of CEE and the NIS the life sector is vastly underdeveloped. However, the region does show some signs of limited growth, especially in those host countries that have been able to achieve a certain degree of economic stability. This is especially the case with regard to the EU-AC8, although there are a number of host country deviations.

c. Real Average Annual Growth Rates in PI vs. GDP

While both insurance density and penetration rates are useful means of analysis for assessing the development of the insurance sector within the countries of CEE and the NIS between 1990-2001, they don't necessarily provide us with the complete story. In respect of density rates, this is especially the case given the noted limitations of employing nominal premium income data for analysis. Consequently, it is prudent to examine the data on insurance activities (total premium income) for CEE and the NIS utilizing *real growth rates*, which measure insurance activity on the basis of yearly changes in premium volume that are adjusted to take account the effects of annual average rates of inflation. This is quite a useful measure since it charts 'real' annual growth within the insurance sector. In doing so, this method of analysis can not only assess how these markets have developed but also offer some insight with regard to their future potential.

In terms of analysis, the latter period of 1996-2001 has been utilized so as to minimize the affects of economic volatility that was quite evident during 1990-95 period. In addition, for the purposes of benchmarking, real average annual growth rates in GDP for the same period have been utilized to compare and contrast insurance activity in terms of overall host country performance.

Accordingly, the data presented in **Exhibit 4** provides a profile of average annual growth rates of premium income relative to GDP in the countries of CEE and the NIS between 1996-2001. It should be noted that calculations for Azerbaijan, Georgia, and Moldova have been adjusted to compensate for a lack of data for 2001.

Even at first inspection, it is clear that the real average annual growth rates for total insurance activity has in the vast majority of cases exceeded real GDP growth rates, and in a number of instances greatly surpassed them. In fact, only five host countries – Bulgaria, Moldova, the FYR Macedonia, Albania, and Serbia & Montenegro – posted real average annual growth rates for total premium income below that of GDP. Moreover, in the first three host countries cited, there was actually a negative real rate with regard to total premium income.

It is also interesting to note that there is a fairly tight grouping of the EU-AC8 in the middle of the spectrum. Moreover, with the exception of Slovenia, the rest of the EU-AC8 each show real average annual growth rates in total premium income well in excess of GDP levels. Within this grouping, this is most pronounced in the case of the Czech Republic and Slovakia, and to a somewhat lesser extent in Lithuania, Latvia, and Poland. As for Estonia, the ratio of real average annual growth rates for insurance activity to GDP is almost two to one respectively.

In terms of analyzing the data, real average annual growth rates for total premium income were compared to GDP growth rates and a ratio calculated representing the proportion of the former to the latter. In doing so, two specific time periods have been utilized, namely a six-year (1996-2001) and four-year (1998-2001) spread. A multiple line chart was then utilized to identify the main trends and respective host country groupings, with the more recent four-year period used to form the base line. Based on this analysis four host country groupings²¹ were identified, as follows:

Group One (0 – 0.89): the FYR Macedonia (.05), Azerbaijan (.17), the Russian Federation (.2), Kazakhstan (.38), Latvia (.51), Poland (.54), and Estonia (.77).

Group Two (0.9 – 1.09): Hungary (.94), the Czech Republic (1.07), and Bulgaria (1.09).

Group Three (1.10 – 2.35): Bosnia-Herzegovina (1.19), Lithuania (1.26), Belarus (1.33), Slovenia (1.33), Croatia (1.71), and Ukraine (1.86).

Group Four (More than 2.35): Serbia & Montenegro (2.67), Romania (2.68), Albania (2.89), Moldova (3.0), and Slovakia (4.84).

²¹ Please note that due to data availability issues the analysis has not included Armenia, Georgia, and Uzbekistan.

On the basis of comparing the six-year to four-year spreads, the host countries forming group one show a decrease in the proportion of real average annual growth rates of total premium income compared to GDP. Those host countries associated with group two show relatively balanced proportions between the two. In regard to groups three and four, these both show increasingly higher ratios of real annual growth rates for both total premium income to GDP.

An examination of possible relationships between real growth rates for total premiums and GDP for each the individual host country yields a mixed picture. In some countries it would seem that a positive correlation in movement does exist between real growth rates of total premiums and GDP. Yet, in other host countries there would appear to be an inverse correlation, and in a few countries no discernable relationship can be identified due to fluctuations in the two factors, notably with regard to real growth rates of GDP.

In regard to the EU-AC8 grouping, several host countries show a positive correlation between real growth in total premiums and GDP. For the Czech Republic, Slovakia, and Slovenia, there is an increase in both factors, whereas in Poland, and to a lesser extent Hungary, there is a decrease in total premiums and GDP. In terms of inverse relationships, this applies to the situation found in Latvia, with decreasing premiums but increasing levels of GDP. In Estonia and Lithuania the picture is rather mixed due to fluctuating real growth rates of GDP.

Overall, it is interesting to note that despite the fact that economic conditions in the region have been far from favorable, and indeed even extremely adverse, the growth of the insurance sector relative to GDP has been significant. Yet, this situation might point to structural imbalances in certain host countries with regard to the development of the insurance sector.

6 Conclusions

In the wake of the dramatic events of 1989-91, the countries of CEE and the NIS have sought to transform their political, social, and economic structures. In doing so, they have each taken their own path along the long road of transition, each achieving different levels of progress in the process of transformation. However, it is also quite clear that the legacy of the former Communist system has left a profound mark on the region and its inhabitants.

These factors have also had an influence on the evolution of the insurance industry in the countries of CEE and the NIS between 1990-2001. This is especially the case with regard to the low degree of 'insurance culture' currently exhibited by both individual and business customers across the region.

Based on the data presented in this paper, it is evident that the insurance sector in CEE, and to an even greater extent in most of the NIS, remains greatly undeveloped. Yet, the importance of developing an efficient and effective insurance sector in these countries should not be understated, given its vital role as one of the three key pillars of financial services alongside banking and capital markets. In that regard, the signs are somewhat encouraging in those host countries that are generally more advanced in the process of transition. However, the scene at the other end of the spectrum is

quite concerning, as it is evident that in some countries the insurance mechanism is being utilized for purposes of 'black business' activities for which they were definitely not intended. This type of usage is also causing further damage to the already low level of insurance culture in these countries.

In terms of areas of activity, the non-life segment continues to be the dominant source of premium income, most of which is in the form of motor insurance policies (MTPL and Casco). Yet, for MTPL, the combination of increasing competitive pressures and low profit margins make this a poor engine for growth. Nevertheless, many foreign and local insurers active in the region seem to be relying on motor insurance to not only provide growth but more importantly to introduce consumers to their other product offerings, and hopefully in the process enhance the currently low level of local insurance culture. While this education process is essential, it is sure to be resource intensive, and in the end may not actually yield the necessary critical mass of customers required to support their operations.

As for life insurance, as evident from the analysis, this segment has clearly yet to take root in the countries of CEE, and to an even greater extent in most of the NIS. The combination of high economic volatility and low insurance culture are undoubtedly the two major factors behind this situation. While an examination of the data shows that the former is changing for the better, the same cannot yet be said about the latter. Thus, insurers have their work cut out for them to establish the need to purchase life insurance products in the hearts and minds of the local customer base. Consequently, host country governments will also need to play a vital role in this process, educating their respective citizens to the harsh reality that the State can no longer afford to provide for such needs and it is now the responsibility of the individual to do so. While to a certain extent this process of education is already happening with regard to pensions provisions, more must be done to promote life insurance in general. In addition, both local banking and capital markets need to develop further so as to facilitate a greater range of viable investment opportunities for insurers.

In regard to the development of specific host country insurance markets between 1990-2001, based on the analysis of insurance density rates, penetrations rates, and real annual growth rates, three tiers of development can be identified. The **Tier One** grouping represents those host countries that have generally liberalized their insurance markets early on and therefore have more advanced insurance sectors; adopted international standards of risk management; engendered an effective and efficient legal environment in which insurance operations can function; permitted foreign entrants into the sector; and sought to reduce, partly or fully, their controlling interests in former State insurers via the process of privatization. In addition, these host countries also offer providers and customers a more stable economic environment in which to do business. Thus far, the countries comprising this first tier grouping, in ascending order of their development, include Croatia, Poland, Hungary, Slovakia, the Czech Republic, and Slovenia. Regardless, even in this most advanced tier of development, a great deal of work remains to be done, especially in terms of establishing a viable life segment. In addition, the fact that five out of the six host countries also part of the EU-AC8 grouping, poses its own special set of issues, since it will be necessary for these countries to accelerate the process of

development if their respective local insurance markets are to survive and prosper with integration into the EU.

The second host country grouping involves those host countries that have made considerable progress in recent years but for various reasons have not yet fully implemented the measures noted above and also suffer from a degree of economic volatility. Members of this **Tier Two** grouping in ascending order of development include FYR Macedonia, Lithuania, Latvia, and Estonia. The fact that the three Baltic States are also EU-AC8 is reason for serious concern, since the level of development in their insurance markets is evidently not yet where it should be in relation to levels found in the EU. This is especially the case given that each of the Baltic States has a very small domestic market, which given current conditions may make local operations economically unviable with forthcoming integration within the EU. This might result in these three countries being served by foreign branch operations, as opposed to a truly indigenous insurance sector.

Finally, the remaining host countries fall into what can be classified as a **Tier Three** grouping, as they have yet to take the necessary steps to transform their insurance industries in accord with international standards. There are a variety of reasons for this scenario, some of which include adverse economic conditions, political concerns fueled by fervent nationalism, an inadequate legal environment, a shortage or lack of insurance know-how, or a combination thereof.

Given this situation, the policy implications are different for each host country grouping, although some commonalities do exist. One key commonality between the first two tiers of development is that each of these host countries has to varying degrees sought to internalize the EU's three generations of insurance directives. Yet, this is not to say that the EU's insurance directives represent the ideal vehicle for transformation, rather they simply act as a better guide to development than what these countries previously employed. Another common factor has been their stated desire to join the EU. Yet, the challenge to host countries in the **Tier Two** grouping will be to make concerted efforts to fully implement the necessary measures. For those EU hopefuls that fall within the **Tier Three** grouping, they will have to overcome even more obstacles, some of which may be beyond their immediate control, as well as demonstrate a determination to truly transform their insurance industries in line with international standards. For those remaining host countries outside of the first two tiers of development the choice is clear, to remain in the past with the legacy of an antiquated insurance system that proved inadequate even with State support or to move forward by developing a world-class insurance industry.

In terms of the literature, this study has addressed two important points. First, it has questioned the generally held view that the insurance sector in CEE and the NIS will indeed evolve in conjunction with continued economic development to a point of convergence with those found in developed Western market economies. For the region as a whole, the evidence does not support such a view, although in time some of the host countries in the **Tier One** grouping could prove otherwise.

Secondly, this study has also questioned the viability of S-curve relationship, whereby a positive correlation is claimed to exist between per-capita income and insurance penetration within a given host country. In the context of the countries of

CEE and the NIS, the evidence suggests that this is not necessarily the case. While some could argue that the non-life segment shows signs of developing such a relationship, it must be remembered that the bulk of premiums continue to be generated by motor insurance, which in a number of host countries is compulsory in nature. Therefore, there is no real choice involved in purchasing such coverage. As for the life insurance branch, the general lack of activity provides little evidence to support any positive correlation between penetration rates and per-capita income.

Overall, it is quite evident that the low level of insurance culture exhibited by business and private individuals continues to play a fundamental role in the development of the insurance sector in CEE and the NIS. Accordingly, this general culture must change if the insurance sector is to become an effective third pillar of the financial services sector in these countries.

In closing, at the outset this paper had two main objectives. Primarily, this study has sought to provide an overview of the development of the insurance industry in the countries of CEE and the NIS since the onset of the transition process. Secondly, this study has been the first step in a comprehensive longitudinal study of the evolution of the insurance sector in these transition economies that will provide in-depth coverage of individual host country markets. Moreover, it is hoped that this paper will serve as a catalyst to others, especially within the academic community, to engage in further research and discussion of the insurance industry, and the financial services sector in general, in the countries of CEE and the NIS. Thus, it is hoped that this paper has fulfilled the first objective and encouraged the latter.

Exhibit 1, Premium Income (in Local Currency) by Insurance Type in CEE and the NIS, 1990-2001

Host Country (in millions of Local Currency)	Currency Unit	Year																	
		1990			1991			1992			1993			1994			1995		
		Total	Life	Non-Life	Total	Life	Non-Life	Total	Life	Non-Life	Total	Life	Non-Life	Total	Life	Non-Life	Total	Life	Non-Life
Albania	ALL							270	0	270	1,204	0	1,204	1,123	0	1,123	1,347	0	1,347
Bulgaria	BGL							2.2	0.08	2.2	5.7	1.5	4.2	12	3.6	8.5	18	6.3	12
Czechoslovakia:	CSK	23,269	7,859	15,410															
Czech Republic	CZK	16,104	6,164	9,940	14,403	4,632	9,771	16,821	5,222	11,598	23,396	5,905	17,491	29,088	7,418	21,670	33,732	9,225	24,507
Slovakia	SKK	7,165	1,695	5,470	5,659	1,745	3,914	6,265	1,832	4,433	8,075	1,971	6,104	8,983	2,118	6,865	10,706	2,554	8,152
Hungary	HUF	39,797	4,356	35,441	62,213	12,814	49,399	58,950	7,685	51,265	73,398	16,920	56,478	94,005	24,115	69,890	119,014	35,449	83,565
Poland	PLN	701	52	649	1,483	208	1,275	2,082	542	1,540	3,096	887	2,209	4,147	1,284	2,862	5,583	1,852	3,731
Romania	ROL	7,716	2,943	4,773	10,951	1,781	9,170	20,196	3,141	17,055	45,894	4,395	41,499	163,942	16,144	147,798	289,826	31,473	258,353
Yugoslavia:	YUD																		
Bosnia-Herzegovina	BAKM																53	0	53
Croatia	HRK										1,654	56	1,598	2,711	94	2,618	2,804	157	2,646
FYR Macedonia	MKD										2,419	76	2,344	4,506	243	4,263	5,437	380	5,057
Serbia & Montenegro	SXM													501	-	-	906	7.9	899
Slovenia	SIT				11,519	780	10,739	32,902	2,457	30,445	47,415	5,015	42,400	62,962	9,031	53,931	102,375	15,151	87,224
USSR/NIS:	SUR																		
Armenia	AMD																		
Azerbaijan	AZM							40	-	-	485	-	-	873	-	-	17,271	-	-
Belarus	BYR										7.1	0.5	6.6	88	7.0	81	457	21	435
Estonia	EEK	11	7.1	4.1	13	7.3	5.7	72	16	57	191	32	159	345	33	311	548	43	505
Georgia	GGL																		
Kazakhstan	KZT													158	-	-	682	-	-
Latvia	LVL										15	4.7	10	18	5.4	13	32	9.0	23
Lithuania	LTL										56	26	30	107	53	54	124	53	71
Moldova	MDL							1.0	-	-	8	-	-	28	15	12	66	27	39
Russian Federation	RSR				14	8.4	5.3	103	24	80	1,109	488	621	7,539	4,298	3,241	28,145	4,963	23,183
Ukraine	UAH										9	4	5.2	144	61	83	244	61	183
Uzbekistan	UZS																		

Continued...

Exhibit 1, Premium Income (in Local Currency) by Insurance Type in CEE and the NIS, 1990-2001 (Cont'd.)

Host Country (in millions of Local Currency)	Currency Unit	Year																	
		1996			1997			1998			1999			2000			2001		
		Total	Life	Non-Life	Total	Life	Non-Life	Total	Life	Non-Life	Total	Life	Non-Life	Total	Life	Non-Life	Total	Life	Non-Life
Albania	ALL	1,521	0	1,521	1,211	1.4	1,209	1,538	2.3	1,535	1,847	3.7	1,843	2,016	8.5	2,008	2,967	175.0	2,792
Bulgaria	BGL	37	8.4	29	195	18	177	233	28	205	310	32	278	388	44	343	478	87	391
Czechoslovakia:	CSK																		
Czech Republic	CZK	40,243	10,989	29,254	47,986	12,690	35,296	54,797	14,965	39,832	62,442	19,917	42,524	69,285	22,770	46,514	80,745	28,282	52,463
Slovakia	SKK	13,786	3,545	10,241	16,968	4,723	12,245	21,281	6,487	14,795	23,659	8,510	15,149	27,322	11,347	15,974	31,858	13,878	17,981
Hungary	HUF	152,741	48,247	104,494	194,654	63,753	130,901	245,543	89,759	155,784	297,756	120,016	177,740	384,090	177,634	206,456	419,470	175,039	244,431
Poland	PLN	8,210	2,790	5,420	12,323	4,073	8,250	15,589	5,378	10,210	18,505	6,957	11,548	20,576	6,997	13,579	22,149	7,703	14,446
Romania	ROL	550,035	53,586	496,449	1,304,041	80,758	1,223,283	2,414,840	199,447	2,215,393	4,273,930	505,690	3,768,240	6,738,873	1,066,586	5,672,287	10,012,425	2,114,733	7,897,692
Yugoslavia:	YUD																		
Bosnia-Herzegovina	BAKM	62	0.4	62	110	3.1	107	132	4.3	127	198	13	186	227	18	209	227	17	211
Croatia	HRK	3,096	257	2,839	3,516	396	3,120	4,072	590	3,481	4,336	685	3,652	4,531	759	3,771	5,099	925	4,174
FYR Macedonia	MKD	5,367	18	5,350	5,235	46	5,189	5,617	64	5,553	5,976	78	5,898	5,836	88	5,748	5,906	92	5,814
Serbia & Montenegro	SXM	1,989	11	1,978	2,774	22	2,752	2,464	21	2,443	5,010	26	4,985	8,778	47	8,731	18,666	156	18,511
Slovenia	SIT	121,814	20,127	101,687	129,589	22,878	106,711	154,046	26,302	127,744	171,381	30,906	140,475	192,866	37,361	155,505	230,030	49,148	180,882
USSR/NIS:	SUR																		
Armenia	AMD				428	0	428	841	0	841	1,105	0	1,105	1,276	0	1,276	2,062	0	2,062
Azerbaijan	AZM	36,939	619	36,320	54,312	881	53,431	57,625	1,606	56,020	61,242	1,231	60,011	61,056	1,252	59,804	na	na	na
Belarus	BYR	764	33	731	1,250	56	1,194	2,463	70	2,393	15,227	132	15,095	58,131	563	57,568	119,255	na	na
Estonia	EEK	797	64	733	1,054	128	926	1,237	206	1,030	1,343	216	1,126	1,594	304	1,290	1,783	356	1,427
Georgia	GGL				5.6	0.2	5.5	9.0	0.1	8.9	14	0.2	14	18.1	0.1	18	na	na	na
Kazakhstan	KZT	1,000	-	-	3,342	88	3,254	4,139	31	4,108	5,862	37	5,825	8,155	1.5	8,154	13,341	96	13,244
Latvia	LVL	44	9.5	34	62	8.5	54	87	10	77	95	11	83	94	4.8	89	96	4.5	91
Lithuania	LTL	185	54	130	253	58	195	447	67	381	439	74	365	437	76	361	478	93	385
Moldova	MDL	97	50	47	137	67	70	100	32	68	93	7.4	85	108	6.0	102	na	na	na
Russian Federation	RSR	36,866	7,758	29,108	44,443	8,076	36,368	42,692	12,416	30,277	96,640	35,523	61,116	170,999	79,790	91,209	276,600	139,700	136,900
Ukraine	UAH	318	33	284	408	19	390	789	13	776	1,164	7.6	1,156	2,136	10	2,126	3,031	16	3,015
Uzbekistan	UZS							4,927	-	-	8,349	-	-	16,346	-	-	-	-	-

Notes: Wherever possible the researcher has utilized data obtained directly from host country sources (local insurers' association and/or the respective supervisory authority). These individual host country sources are identified in the rear section of this paper.

Exhibit 2a, Insurance Density Rates in CEE and the NIS, 1990-2001

Host Country (in US Dollars)	Year											
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Albania			1.04	3.60	3.70	4.49	4.44	2.43	3.03	3.95	4.10	5.98
Bulgaria			0.011	0.024	26.66	32.60	24.87	14.00	15.97	20.50	22.28	26.83
Czechoslovakia:	82.58											
Czech Republic	86.34	47.11	57.63	77.60	97.74	123.19	143.88	146.84	164.73	175.38	174.60	206.90
Slovakia	75.48	36.30	41.80	45.77	52.61	67.30	83.65	93.89	112.21	105.97	109.51	121.76
Hungary	60.69	80.32	72.19	77.47	87.03	92.41	98.01	102.42	112.95	124.33	135.07	145.61
Poland	19.40	36.72	39.87	44.47	46.82	60.30	78.76	96.64	115.21	119.64	123.75	139.64
Romania	14.84	6.21	2.87	2.65	4.35	6.28	7.87	8.06	12.08	12.39	13.85	15.42
Yugoslavia:												
Bosnia-Herzegovina						8.69	12.70	20.60	20.45	31.91	30.32	26.73
Croatia				100.84	97.29	115.73	125.16	125.11	140.22	135.24	120.47	135.79
FYR Macedonia				49.81	53.85	73.11	67.94	52.80	51.48	52.18	43.80	42.74
Serbia & Montenegro					29.84	47.80	37.65	45.93	24.96	42.46	24.97	26.18
Slovenia		208.68	202.48	209.99	245.77	434.35	452.09	408.38	467.22	476.59	439.16	482.34
USSR/NIS:												
Armenia								0.28	0.54	0.67	0.76	1.20
Azerbaijan					0.08	0.51	1.10	1.73	1.86	1.86	1.69	na
Belarus				2.53	2.31	3.86	5.59	4.66	5.20	6.01	7.98	8.48
Estonia	na	na	3.83	9.47	17.59	31.95	45.01	51.87	60.33	63.17	65.25	70.90
Georgia								0.80	1.20	1.31	1.66	na
Kazakhstan					0.27	0.70	0.94	2.85	3.46	3.28	3.87	6.13
Latvia				8.57	12.77	24.16	32.12	43.77	60.44	65.68	63.78	63.36
Lithuania				3.49	7.18	8.33	12.43	17.08	30.19	29.68	29.53	32.29
Moldova			1.14	1.21	1.54	3.35	4.76	6.70	4.17	2.01	2.19	na
Russian Federation		1.37	3.14	8.01	23.10	41.36	48.97	52.08	29.09	26.85	41.66	65.35
Ukraine				3.61	8.42	3.23	3.40	4.31	6.41	5.65	7.95	11.51
Uzbekistan										0.78	0.69	0.83

Notes: Insurance Density Rates (premium income in US Dollars / population). Premium income figures given in US Dollars are based upon the appropriate average annual exchange rates reported by the EBRD. Population figures are based upon Euromonitor International data, with the exception of Armenia, Azerbaijan, Kazakhstan, and Uzbekistan, which rely on EBRD data.

Exhibit 2b, Life Insurance Density Rates in CEE and the NIS, 1990-2001

Host Country (in US Dollars)	Year											
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Albania			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.008	0.017	0.35
Bulgaria			0.0004	0.006	7.96	11.08	5.65	1.29	1.94	2.09	2.54	4.90
Czechoslovakia:	27.89											
Czech Republic	33.05	15.15	17.89	19.59	24.92	33.69	39.29	38.83	44.99	55.94	57.38	72.47
Slovakia	17.86	11.19	12.22	11.17	12.41	16.06	21.51	26.13	34.20	38.11	45.48	53.04
Hungary	6.64	16.54	9.41	17.86	22.33	27.52	30.96	33.55	41.29	50.11	62.47	60.76
Poland	1.43	5.15	10.38	12.74	14.50	20.00	26.77	31.94	39.75	44.98	42.08	48.56
Romania	5.66	1.01	0.45	0.25	0.43	0.68	0.77	0.50	1.00	1.47	2.19	3.26
Yugoslavia:												
Bosnia-Herzegovina							0.08	0.58	0.67	2.06	2.42	1.95
Croatia				3.44	3.36	6.50	10.40	14.10	20.33	21.36	20.19	24.64
FYR Macedonia				1.55	2.91	5.11	0.22	0.46	0.58	0.68	0.66	0.66
Serbia & Montenegro					na	0.42	0.21	0.36	0.22	0.22	0.13	0.22
Slovenia		14.13	15.12	22.21	35.25	64.28	74.70	72.10	79.77	85.95	85.07	103.06
USSR/NIS:												
Armenia								0.0	0.0	0.0	0.0	0.0
Azerbaijan					na	na	0.018	0.028	0.052	0.037	0.035	na
Belarus				0.16	0.18	0.18	0.24	0.21	0.15	0.05	0.08	na
Estonia	na	na	0.82	1.58	1.70	2.49	3.64	6.31	10.07	10.18	12.46	14.15
Georgia								0.022	0.012	0.021	0.011	na
Kazakhstan					na	na	na	0.075	0.026	0.021	0.001	0.04
Latvia				2.70	3.79	6.82	6.94	5.99	7.12	7.81	3.26	2.94
Lithuania				1.62	3.56	3.55	3.66	3.93	4.49	5.00	5.15	6.27
Moldova			na	na	0.86	1.38	2.47	3.28	1.33	0.16	0.12	na
Russian Federation		0.84	0.72	3.53	13.17	7.29	10.31	9.46	8.46	9.87	19.44	33.01
Ukraine				1.60	3.58	0.81	0.36	0.20	0.10	0.037	0.037	0.060
Uzbekistan										na	na	na

Notes: Insurance Density Rates (premium income in US Dollars / population). Premium income figures given in US Dollars are based upon the appropriate average annual exchange rates reported by the EBRD. Population figures are based upon Euromonitor International data, with the exception of Armenia, Azerbaijan, Kazakhstan, and Uzbekistan, which rely on EBRD data.

Exhibit 2c, Non-Life Insurance Density Rates in CEE and the NIS, 1990-2001

Host Country (in US Dollars)	Year											
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Albania			1.04	3.60	3.70	4.49	4.44	2.43	3.03	3.94	4.08	5.63
Bulgaria			0.011	0.018	18.70	21.52	19.22	12.70	14.03	18.41	19.74	21.94
Czechoslovakia:	82.58											
Czech Republic	86.34	31.96	39.74	58.01	72.81	89.50	104.59	108.01	119.74	119.44	117.22	134.43
Slovakia	75.48	25.11	29.58	34.60	40.20	51.25	62.14	67.75	78.01	67.85	64.03	68.72
Hungary	60.69	63.78	62.78	59.61	64.71	64.88	67.05	68.88	71.66	74.22	72.60	84.85
Poland	19.40	31.57	29.49	31.73	32.32	40.30	51.99	64.71	75.46	74.66	81.67	91.07
Romania	14.84	5.20	2.43	2.40	3.93	5.60	7.11	7.56	11.08	10.93	11.66	12.16
Yugoslavia:												
Bosnia-Herzegovina						8.69	12.62	20.02	19.78	29.85	27.90	24.78
Croatia				97.40	93.93	109.23	114.76	111.01	119.90	113.88	100.28	111.15
FYR Macedonia				48.25	50.95	68.00	67.72	52.34	50.89	51.50	43.14	42.08
Serbia & Montenegro					na	47.38	37.44	45.58	24.75	42.25	24.83	25.97
Slovenia		194.55	187.36	187.78	210.52	370.07	377.39	336.28	387.45	390.64	354.09	379.28
USSR/NIS:												
Armenia								0.28	0.54	0.67	0.76	1.20
Azerbaijan					na	na	1.08	1.70	1.81	1.82	1.65	na
Belarus				2.37	2.13	3.68	5.35	4.45	5.05	5.96	7.90	na
Estonia	na	na	3.01	7.89	15.89	29.46	41.37	45.57	50.26	52.99	52.79	56.75
Georgia								0.78	1.19	1.29	1.65	na
Kazakhstan					na	na	na	2.78	3.44	3.26	3.87	6.08
Latvia				5.87	8.98	17.35	25.19	37.79	53.32	57.87	60.52	60.42
Lithuania				1.87	3.63	4.78	8.77	13.15	25.70	24.67	24.38	26.02
Moldova			na	na	0.68	1.97	2.29	3.42	2.84	1.85	2.07	na
Russian Federation		0.53	2.42	4.49	9.93	34.07	38.67	42.62	20.63	16.98	22.22	32.35
Ukraine				2.00	4.84	2.42	3.04	4.12	6.31	5.62	7.92	11.45
Uzbekistan										na	na	na

Notes: Insurance Density Rates (premium income in US Dollars / population). Premium income figures given in US Dollars are based upon the appropriate average annual exchange rates reported by the EBRD. Population figures are based upon Euromonitor International data, with the exception of Armenia, Azerbaijan, Kazakhstan, and Uzbekistan, which rely on EBRD data.

Exhibit 3a, Insurance Penetration Rates in CEE and the NIS, 1990-2001

Host Country	Year											
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Albania			0.51%	0.96%	0.61%	0.59%	0.54%	0.35%	0.33%	0.36%	0.37%	0.50%
Bulgaria			1.11%	1.89%	2.32%	2.09%	2.11%	1.12%	1.04%	1.30%	1.45%	1.61%
Czechoslovakia:	2.78%											
Czech Republic	2.78%	1.92%	1.99%	2.33%	2.46%	2.44%	2.57%	2.86%	2.98%	3.28%	3.49%	3.74%
Slovakia	2.78%	1.77%	1.88%	2.07%	1.93%	1.96%	2.27%	2.47%	2.83%	2.90%	3.08%	3.30%
Hungary	1.91%	2.49%	2.00%	2.07%	2.15%	2.12%	2.22%	2.28%	2.43%	2.61%	2.86%	2.75%
Poland	1.19%	1.79%	1.81%	1.99%	1.97%	1.93%	2.26%	2.77%	2.84%	3.03%	2.98%	3.01%
Romania	0.90%	0.50%	0.33%	0.23%	0.33%	0.40%	0.50%	0.52%	0.65%	0.79%	0.85%	0.89%
Yugoslavia:												
Bosnia-Herzegovina						1.99%	1.51%	1.80%	1.79%	2.31%	2.40%	2.29%
Croatia				4.24%	3.10%	2.85%	2.87%	2.84%	2.96%	3.06%	2.97%	3.13%
FYR Macedonia				4.09%	3.08%	3.21%	3.04%	2.81%	2.88%	2.86%	2.47%	2.48%
Serbia & Montenegro					na	na	2.36%	2.47%	1.68%	2.60%	2.45%	2.58%
Slovenia		3.30%	3.23%	3.30%	3.40%	4.61%	4.77%	4.46%	4.73%	4.70%	4.78%	5.04%
USSR/NIS:												
Armenia								0.05%	0.09%	0.11%	0.12%	0.18%
Azerbaijan			0.17%	0.31%	0.05%	0.16%	0.27%	0.34%	0.33%	0.32%	0.26%	na
Belarus				0.72%	0.50%	0.38%	0.40%	0.34%	0.35%	0.51%	0.64%	0.71%
Estonia	na	na	0.55%	0.88%	1.15%	1.34%	1.52%	1.65%	1.68%	1.76%	1.83%	1.85%
Georgia								0.12%	0.16%	0.25%	0.30%	na
Kazakhstan					0.04%	0.07%	0.07%	0.20%	0.24%	0.29%	0.31%	0.41%
Latvia				1.02%	0.89%	1.38%	1.56%	1.91%	2.42%	2.43%	2.17%	1.99%
Lithuania				0.48%	0.63%	0.50%	0.59%	0.66%	1.03%	1.03%	0.98%	1.01%
Moldova			0.52%	0.43%	0.58%	0.87%	1.10%	1.35%	0.97%	0.75%	0.61%	na
Russian Federation		0.98%	0.54%	0.65%	1.23%	1.83%	1.72%	1.79%	1.58%	2.03%	2.34%	3.06%
Ukraine				0.63%	1.20%	0.45%	0.39%	0.44%	0.77%	0.89%	1.26%	1.50%
Uzbekistan										0.23%	0.26%	0.35%

Notes: Insurance Penetration Rates (premium income / GDP). Premium income figures utilized are obtained directly from host country sources (local insurers' association and/or the respective supervisory authority). GDP figures are those reported by the EBRD.

Exhibit 3b, Life Insurance Penetration Rates in CEE and the NIS, 1990-2001

Host Country	Year											
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Albania			0.0%	0.0%	0.0%	0.0%	0.0%	0.0004%	0.0005%	0.0007%	0.0016%	0.0296%
Bulgaria			0.04%	0.50%	0.69%	0.71%	0.48%	0.10%	0.13%	0.13%	0.17%	0.29%
Czechoslovakia:	0.94%											
Czech Republic	1.06%	0.62%	0.62%	0.59%	0.63%	0.67%	0.70%	0.76%	0.81%	1.05%	1.15%	1.31%
Slovakia	0.66%	0.55%	0.55%	0.50%	0.45%	0.47%	0.58%	0.69%	0.86%	1.04%	1.28%	1.44%
Hungary	0.21%	0.51%	0.26%	0.48%	0.55%	0.63%	0.70%	0.75%	0.89%	1.05%	1.32%	1.15%
Poland	0.087%	0.25%	0.47%	0.57%	0.61%	0.64%	0.77%	0.91%	0.98%	1.14%	1.01%	1.05%
Romania	0.34%	0.081%	0.052%	0.022%	0.032%	0.044%	0.049%	0.032%	0.054%	0.094%	0.13%	0.19%
Yugoslavia:												
Bosnia-Herzegovina						0.0%	0.010%	0.051%	0.059%	0.15%	0.19%	0.17%
Croatia				0.14%	0.11%	0.16%	0.24%	0.32%	0.43%	0.48%	0.50%	0.57%
FYR Macedonia				0.13%	0.17%	0.22%	0.010%	0.025%	0.033%	0.037%	0.037%	0.038%
Serbia & Montenegro					na	na	0.013%	0.019%	0.015%	0.013%	0.013%	0.021%
Slovenia		0.22%	0.24%	0.35%	0.49%	0.68%	0.79%	0.79%	0.81%	0.85%	0.93%	1.08%
USSR/NIS:												
Armenia								0.0%	0.0%	0.0%	0.0%	0.0%
Azerbaijan			na	na	na	na	0.005%	0.006%	0.009%	0.007%	na	na
Belarus				0.047%	0.039%	0.018%	0.017%	0.015%	0.010%	0.004%	0.006%	na
Estonia	na	na	0.12%	0.15%	0.11%	0.10%	0.12%	0.20%	0.28%	0.28%	0.35%	0.37%
Georgia								0.0033%	0.0016%	0.0040%	0.0020%	na
Kazakhstan					na	na	na	0.005%	0.002%	0.00%	0.0001%	0.003%
Latvia				0.32%	0.26%	0.39%	0.34%	0.26%	0.29%	0.29%	0.11%	0.09%
Lithuania				0.22%	0.31%	0.21%	0.17%	0.15%	0.15%	0.17%	0.17%	0.20%
Moldova			na	na	0.32%	0.36%	0.57%	0.66%	0.31%	0.060%	0.034%	na
Russian Federation		0.60%	0.12%	0.28%	0.70%	0.32%	0.36%	0.33%	0.46%	0.75%	1.09%	1.55%
Ukraine				0.28%	0.51%	0.11%	0.041%	0.020%	0.013%	0.006%	0.006%	0.008%
Uzbekistan										na	na	na

Notes: Insurance Penetration Rates (premium income / GDP). Premium income figures utilized are obtained directly from host country sources (local insurers' association and/or the respective supervisory authority). GDP figures are those reported by the EBRD.

Exhibit 3c, Non-Life Insurance Penetration Rates in CEE and the NIS, 1990-2001

Host Country	Year											
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Albania			0.51%	0.96%	0.61%	0.59%	0.54%	0.35%	0.33%	0.36%	0.37%	0.47%
Bulgaria			1.07%	1.40%	1.62%	1.38%	1.63%	1.02%	0.91%	1.17%	1.28%	1.32%
Czechoslovakia:	1.84%											
Czech Republic	1.72%	1.30%	1.37%	1.75%	1.83%	1.77%	1.87%	2.10%	2.17%	2.24%	2.34%	2.43%
Slovakia	2.12%	1.22%	1.33%	1.56%	1.47%	1.49%	1.69%	1.78%	1.97%	1.86%	1.80%	1.86%
Hungary	1.70%	1.98%	1.74%	1.59%	1.60%	1.49%	1.52%	1.53%	1.54%	1.56%	1.53%	1.60%
Poland	1.10%	1.54%	1.34%	1.42%	1.36%	1.29%	1.49%	1.85%	1.86%	1.89%	1.97%	1.96%
Romania	0.56%	0.42%	0.28%	0.21%	0.30%	0.36%	0.46%	0.48%	0.60%	0.70%	0.71%	0.70%
Yugoslavia:												
Bosnia-Herzegovina						1.99%	1.50%	1.75%	1.74%	2.16%	2.21%	2.12%
Croatia				4.10%	2.99%	2.69%	2.63%	2.52%	2.53%	2.58%	2.47%	2.56%
FYR Macedonia				3.96%	2.91%	2.98%	3.03%	2.79%	2.85%	2.82%	2.43%	2.44%
Serbia & Montenegro					na	na	2.35%	2.45%	1.67%	2.58%	2.44%	2.56%
Slovenia		3.08%	2.99%	2.95%	2.91%	3.93%	3.98%	3.67%	3.93%	3.85%	3.85%	3.96%
USSR/NIS:												
Armenia								0.05%	0.09%	0.11%	0.12%	0.18%
Azerbaijan			na	na	na	na	0.27%	0.34%	0.33%	0.32%	na	na
Belarus				0.67%	0.46%	0.36%	0.38%	0.33%	0.34%	0.51%	0.63%	na
Estonia	na	na	0.44%	0.74%	1.04%	1.24%	1.40%	1.45%	1.40%	1.48%	1.48%	1.48%
Georgia								0.12%	0.16%	0.25%	0.30%	na
Kazakhstan					na	na	na	0.19%	0.24%	0.29%	0.31%	0.40%
Latvia				0.70%	0.62%	0.99%	1.22%	1.65%	2.14%	2.14%	2.05%	1.90%
Lithuania				0.26%	0.32%	0.29%	0.41%	0.51%	0.87%	0.86%	0.81%	0.81%
Moldova			na	na	0.26%	0.51%	0.53%	0.69%	0.66%	0.69%	0.57%	na
Russian Federation		0.38%	0.42%	0.36%	0.53%	1.51%	1.36%	1.47%	1.12%	1.28%	1.25%	1.51%
Ukraine			0.00%	0.35%	0.69%	0.34%	0.35%	0.42%	0.76%	0.89%	1.25%	1.49%
Uzbekistan										na	na	na

Notes: Insurance Penetration Rates (premium income / GDP). Premium income figures utilized are obtained directly from host country sources (local insurers' association and/or the respective supervisory authority). GDP figures are those reported by the EBRD.

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Sources

Source (period covered): AXCO (1990-02); Swiss Re (1989-02); **Albania:** Insurance Institute of Albania (1995-02) and Albanian Insurance Supervisory Commission (1998-02); **Armenia:** Supervisor of Insurance, Ministry of Finance and Economy (1997-02); **Azerbaijan:** State Insurance Supervision Committee (1993-01); **Belarus:** Insurance Activity Supervisory Committee (1993-01); **Bosnia-Herzegovina:** Insurance Supervisory Office (1995-99), Insurance Bureau of Bosnia and Herzegovina (1995-98), and BosnaRe (1996-02); **Bulgaria:** Insurance Supervision Directorate (1997-01), Insurance Supervision Agency (2002), National Statistical Institute (1992-96), and the Association of Bulgarian Insurers (1994-99); **Croatia:** Croatian Insurance Bureau (1993-02); **Czechoslovakia:** Czecho-Slovak Association of Insurance Companies (1991-92); **Czech Republic:** Czech Insurance Association (1992-02); **Estonia:** Financial Supervision Authority (1990-02)(formerly the 'Estonian Insurance Supervisory Authority'); **FYR Macedonia:** Ministry of Finance, Republic of Macedonia (1995-99); **Georgia:** Insurance State Supervision Service (1997-1999); **Hungary:** Association of Hungarian Insurance Companies (1989-02); **Latvia:** Financial and Capital Market Commission (1993-02)(formerly the 'Latvian State Insurance Supervision Inspectorate') and the Latvian Insurers Association (1993-02); **Lithuania:** State Insurance Supervisory Authority under the Ministry of Finance (1995-02)(formerly the 'State Insurance Council') and Lithuanian Insurers' Association (1995-02); **Moldova:** State Insurance Supervision Office, Ministry of Finance of the Republic of Moldova (1992-02); **Poland:** State Office for Insurance Supervision (1991-02); **Romania:** Supervisory Office of Insurance and Reinsurance Activity and the National Union of Insurance & Reinsurance Companies - Romania (1993-02); **Russian Federation:** Department of Insurance Supervision (1992-00) and the All Russian Insurers' Alliance (1992-00); **Serbia & Montenegro:** Association of Yugoslav Insurance Organizations (1994-02); **Slovakia:** Slovak Insurance Association (1992-02); **Slovenia:** Slovenian Insurance Bureau and the Slovenian Insurance Association (1991-03); **Ukraine:** The League of Insurance Organizations of Ukraine (1993-01) and Insurance Supervisory Authority, Department of Financial Markets and Organizations (1993-01); **Uzbekistan:** State Insurance Supervisory Inspection (1999-01); and the Author's own calculations.

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