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Study of Insurance Economics

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World Fire Statistics

Information Bulletin of the World Fire Statistics

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NATIONAL FIRE STRATEGY - LOOKING EASTWARD

For the first time, the Bulletin includes an editorial, which looks back at the way in which human and property losses from fire have developed among countries participating in the annual UN survey of national fire costs over the past two decades. However, it then goes on to draw attention to the much more serious problems in tackling fire which apparently face a number of countries in Eastern Europe, including in particular several members of the former Soviet Union. The Centre has reached this view after estimating fire death rates in relation to population, based on statistics published by the World Health Organization in respect of “deaths from accidents caused by smoke, fire and flames”, an analysis not previously undertaken by any other body.

The article concludes by arguing that the governments of these countries need urgently to collect relevant data to enable them to measure the extent of the national fire problem and to develop a strategy to reduce the cost of fire.

The Geneva Association

The International Association for the Study of Insurance Economics, or by its short name "The Geneva Association", is a unique world organisation formed by a maximum of 80 chief executive officers from the most important insurance companies in the world (Europe, North and South America, Asia, Africa and Australia). Our main goal is to research the growing importance of worldwide insurance activities in all sectors of the economy. We try to identify fundamental trends and strategic issues where insurance plays a substantial role or which influence the insurance sector. In parallel, we develop and encourage various initiatives concerning the evolution – in economic and cultural terms – of risk management and the notion of uncertainty in the modern economy.

The Geneva Association also acts as a forum for its members, providing a worldwide unique platform for the top insurance CEOs. We organise the framework for our members in order that they may exchange ideas and discuss key strategic issues, especially at the General Assembly where once per year over 50 of the top insurance CEOs gather. The Geneva Association serves as a catalyst for progress in this unprecedented period of fundamental change in the insurance industry and its growing importance for the further development of the modern economy. It is a non-profit organisation.

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Dr. Christophe COURBAGE (Health & Ageing)

Aims and Activities of the World Fire Statistics Centre

The Centre's main objective is to persuade governments to adopt strategies aimed at reducing the cost of fire which, although running at around 1% of GDP in most advanced countries, has generally received much less attention than the cost of crime or of road accidents. In pursuit of this objective, the Centre collects from over 20 leading countries statistics on national fire costs (see Contents above).

A further important effort is devoted to persuading the European Union to identify fire safety as a topic for collective action, leading to a European fire strategy.

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The Geneva Association Newsletter - "World Fire Statistics", No 19, October 2003 Information Bulletin of the World Fire Statistic Centre

This information bulletin of the World Statistics Centre appears annually. It presents statistics on national fire costs from over 20 leading countries in an effort to persuade governments to adopt strategies aimed at reducing the cost of fire. It has been published since March 1984.

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NATIONAL FIRE STRATEGY - LOOKING EASTWARD

The World Fire Statistics Centre has now been collecting national fire cost statistics from some 20 countries worldwide for over twenty years, and despite some minor changes in the composition of the group of contributing countries and in the consistency of the data sources which they have been using, we can be reasonably confident of some broad trends which seem to have been emerging :

- For most countries, and for most of the time, the cost of fire losses has gradually been declining.
- This trend has applied both to property losses (direct and indirect), measured in relation to gross domestic product (GDP), and to human losses (fire deaths), measured in relation to population.
- Progress has in the main been particularly marked in those countries which had in the 1980s been suffering relatively high losses (particularly fire deaths), while - naturally enough - those countries already enjoying relatively low loss rates have had difficulty in improving much further.
- Among the improving countries, particular mention must be made of the USA and Canada, both of which were suffering fire death rates far above the levels of most of the other participating countries at the start of the period, but have since made dramatic progress in reducing the human toll of fire.

Although, despite this good progress, much remains to be done among the countries taking part in the UN fire cost statistics scheme in dealing with fire, it is now apparent that some of the countries of Eastern Europe, and certain members of the former Soviet Union, face much more severe problems. Recently the Centre started publishing figures of fire deaths in East European countries and certain members of the former Soviet Union, an exercise thought not to have been previously attempted. Based on World Health Organization data for "deaths from accidents caused by smoke, fire and flames", our estimates suggest that several of these countries are facing very severe human losses compared with Western Europe:

Country	Estimated Fire Deaths per 100,000 Population (Average, 1998-2000)
Azerbaijan	3.7
Belarus	7.6
Estonia	14.2
Kazakhstan	4.6
Latvia	11.6
Lithuania	5.0
Russia	8.1
Ukraine	4.2
West European countries	generally between 0.5 and 1.5

Exceptions to this picture include the Czech Republic, Poland, Slovakia and Slovenia, where fire death rates are comparable with those in Western Europe.

The Centre has long argued for the adoption by national governments of considered long-term strategies for tackling fire, following the example of the USA from the early 1970s with its report "America Burning". Experience has shown that the most effective approach to reducing the human cost of fire is through better building fire protection (including smoke alarms, which are relatively cheap to install), coupled with fire safety education. To co-ordinate such measures, urgent action is needed by the governments of the countries in the table, which would include:

- collecting and publishing figures showing the extent of the national fire problem, and
- developing a coherent policy for addressing all fire safety issues.

1. United Nations Fire Statistics Study

The Centre presented its annual report to the UN Committee on Human Settlements at the meeting in Geneva in September 20023

The following 8 tables of international fire costs comparisons appeared in the report:

Cost of Direct Fire Losses

Table 1

Adjusted direct losses (in millions, except for Japan - billions)

Country	Currency	1998 Direct Losses	1999 Direct Losses	2000 Direct Losses	Percentage of GDP 1998-2000
Japan	Yen	490	455	520	0.10
Slovenia	SIT	1,850	2,250	6,550	0.10
Czech Republik	CzKr	2,150	2,350	1,600	0.11
United States	\$US	9,100	10,500	10,500	0.11
Hungary	Ft				0.12 (1986-88)
Spain	Pta				0.12 (1984)
Poland	Zl	600	965	805	0.13
United Kingdom	£	1,250	1,300	1,200	0.14
Finland	€	175	185	185	0.15
Germany	€	2,900	3,200	2,900	0.15
Australia	\$A				0.16 (1992-93)
Canada	\$Can	1,600	1,700	1,650	0.17
New Zealand	\$NZ				0.17 (1993-94)
France	€	2,300	2,550	2,450	0.18
Netherlands	f				0.18 (1995-96)
Italy	€	2,150	1,750	2,450	0.19
Denmark	DKr	2,350	2,250	2,550	0.20
Sweden	SKr	4,250	4,200	4,200	0.20
Switzerland	SwF				0.23 (1989)
Belgium	€	490	570	665	0.24
Austria	Sch	5,250	4,250	5,700	0.26
Norway	NKr	3,000	3,450	3,550	0.26

Note : Fire losses include explosion losses following fires, but exclude explosion loss where no fire occurs, for example, some acts of terrorism

Costs of Indirect Fire Losses**Table 2**

Average percentage of GDP (1997-99)

Country	%
Norway	0.002
Sweden	0.008
Finland	0.009
USA	0.009
UK	0.013
Czech Republic	0.014
Italy	0.014 [1993-94]
Austria	0.016
Japan	0.016 [1985-86]
France	0.019
Canada	0.022 [1991]
Germany	0.024
Netherlands	0.027 [1995-96]
Slovenia	0.027
Denmark	0.029 [1993-95]
Hungary	0.029 [1992-93]
Switzerland	0.095 [1989]

Note: This table must be regarded with serious reservations - the figures are produced on widely varying bases and some of the differences look too large for credibility.

Fire Deaths**Table 3**

Country	Adjusted figures (fire deaths)		
	1998	1999	2000
Singapore	11	2	7
Switzerland	41	40	
Spain	250	275	260
Australia	140	140	125
Italy	435	420	410
Germany	650	630	585
Slovenia	22	17	15
France	580	575	
Czech Republic	100	110	
New Zealand	53	37	33
UK	690	655	645
Canada	370	425	380
Norway	53	61	57
Greece	145	120	
Poland	505	560	515
Austria	55	53	225
Sweden	180	115	110
USA	4,400	3,900	4,400
Denmark	79	84	87
Japan	2,100	2,150	2,050
Finland	91	105	94
Hungary	205	190	200
Ireland	61	85	

Population Comparisons for Fire Deaths (1998-2000)**Table 4**Population comparisons for fire deaths

Country	Deaths per 100,000 persons
Singapore	0.16
Switzerland	0.64 (1997 – 1999)
Spain	0.66
Netherlands	0.68 (1994 – 1996)
Australia	0.71
Italy	0.73
Germany	0.76
Slovenia	0.91
France	0.95 (1997 – 1999)
Czech Republic	1.02
New Zealand	1.08
UK	1.11
Canada	1.26
Norway	1.28
Greece	1.34 (1997 – 1999)
Belgium	1.35 (1995 – 1997)
Poland	1.36 (1999 – 2000)
Austria	1.37
Sweden	1.53
USA	1.55
Denmark	1.57
Japan	1.66
Finland	1.87
Hungary	1.96
Ireland	1.97 (1997 – 1999)

Note : Population figures used are derived from the United Nations Demographic Yearbook.

Cost of Fire Fighting Organisations**Table 5**Average percentage of GDP (1998-2000)

Country	%
Slovenia	0.05
Denmark	0.08
Norway	0.10
Austria	0.11 (1994)
New Zealand	0.13 (1996 – 1998)
Belgium	0.14
Netherlands	0.15 (1994 – 1996)
Sweden	0.15
Poland	0.19
Finland	0.20 (1999 – 2000)
UK	0.21
USA	0.23
Japan	0.33
Canada	0.35 (1991)
Czech Republic	0.38

Note: The low Danish cost is largely due to the private company, Falck, which runs many fire brigades, together with ambulance, rescue and motor breakdown services.

Costs of Fire Insurance Administration**Table 6**

Average percentage of GDP (1998-2000)

Country	%
Hungary	0.01 (1987 – 1988)
Finland	0.03
Netherlands	0.04 (1987 – 1988)
Italy	0.04
Spain	0.05 (1986)
Canada	0.06
Germany	0.06
Sweden	0.06
Slovenia	0.07
UK	0.07
USA	0.07
France	0.08
Norway	0.08
Japan	0.10
Denmark	0.11
Austria	0.14 (1979 – 1980)
New Zealand	0.19 (1993 – 1994)
Belgium	0.23

Costs of Fire Protection to Buildings**Table 7**

Country	Fire Protection	Currency	Cost in millions (except for Japan – billions)		
			1998	1999	2000
Belgium	2.5	€	620	700	750
Canada	3.9	\$C	2,350	2,450	2,550
Czech Republic	3.0	CzKr	3,150	3,150	3,350
Denmark	5.0	DKr	4,950	6,050	6,800
France	2.5	€	1,800	1,950	2,200
Italy	4.0	€	3,350	3,500	3,800
Japan	2.5	Yen	875	865	840
New Zealand	2.5	\$NZ	160	170	
Norway	3.75	NKr	5,050	4,800	4,950
Singapore	4.0	\$S	665	525	800
Slovenia	2.5	SIT	4,900	6,600	7,150
Sweden	2.5	SKr	2,400	2,800	3,200
UK	2.5	€	1,550	1,750	1,850
USA		\$US	34,500	35,000	38,000

Note: In the United Kingdom, the estimated fire protection costs varied from 1 per cent for housing to 7 per cent for hospitals and office buildings, in the United States, from 2.5 per cent for housing to 12 per cent for private non-residential structures, and in Canada from 2 per cent for single homes to 13.2 per cent for high-rise apartments.

Fire Protection to Buildings**Table 8**

Average percentage of GDP (1998-2000)

Country	%
Sweden	0.13
France	0.15
Czech Republic	0.17
Japan	0.17
New Zealand	0.17 (1997 – 1999)
Slovenia	0.17
UK	0.19
Canada	0.25
Belgium	0.29
Switzerland	0.29 (1989)
Netherlands	0.30 (1993 – 1995)
Italy	0.32
Norway	0.39
USA	0.39
Hungary	0.42 (1987 – 1988)
Denmark	0.49
Singapore	0.49

UN Scheme Endorsed

In their session held in Geneva on September 17, 2003, the United Nations Committee expressed its interest in the Report, thanked Mr. Wilmot, invited him to present a similar report to its next session and encouraged countries which had not yet done so to participate in the study.

European Parliament and Fire Costs

Following a meeting with Sir Christopher Prout MEP and with DG III (Industry), Sir Christopher in 1994 drafted the following Motion for resolution by the European Parliament:

"Whereas fire is currently costing countries of the European Union approximately 1% of GDP,

Whereas in comparison with road safety, crime prevention and industrial safety, little or nothing is being done to monitor progress on safety measures,

Whereas the rewards have been high for Governments, such as the United States of America, which have organised a determined campaign to cut fire costs,

NOW THEREFORE

1. The European Parliament urges the Council of Ministers to make a public announcement stating their concern over the level of fire costs in the EU.
2. The European Parliament calls on the European Commission to establish a Working Party of fire experts whose terms of reference would be to recommend ways of tackling the fire problem."

Sir Christopher (now Lord Kingsland) is no longer an MEP, but in 1995 Ms Christine Crawley MEP put down a similar Motion, which went to the Environment Committee in 1996. However, only three of the twenty proposed motions before the Committee were accepted for pursuit and, although the fire resolution was "recognized to be an issue of great importance", it was not accepted. Lord Kingsland in 1997 raised it again with the Chairman of the Environment Committee, who took it up with the Commission, only to receive a stonewalling response.

European Fire Safety Action Programme – League of Augsburg 2000

In April 1999, an international conference, “Firesafe Europe 99”, was organised in Chester, UK on behalf of FEU¹ and CACFOA² with EU financial support. This resulted in a suggested European fire safety action programme, and the Centre helped FEU to carry this forward by jointly organising an FEU/WFSC seminar in Augsburg in June 2000 on “European Fire Strategy – the Part of Statistics”.

As a result of the seminar, the “League of Augsburg 2000” was formed to develop proposals for a European fire statistical database which would meet the needs of likely users of the figures. A core group was formed from among the likely users: fire services, fire protection associations, fire equipment suppliers, fire insurers, government, industry and commerce, and academics. A questionnaire has been circulated to core group members seeking (i) views on additional fire statistics that would be useful, and (ii) information on existing statistics available for publication, the responses have been analysed, and a report is now to be prepared. The European Commission is being kept informed of the progress of the core group, whose role is to produce a report suggesting the best way of carrying forward the proposals.

Another European fire initiative is being organised by the Swedish Fire and Rescue Service (SRSA), which has been contracted by the European Commission’s DG III (Environment) to undertake a project “Fire Prevention and other incidents”. This aims to find common problems associated with fires and to prepare principles and guidance to handle these problems. A group of five countries is working on the project, and held their first meeting in March 2003.

- 1 Federation of European Union Fire Officers’ Associations.
- 2 Chief and Assistant Chief Fire Officers’ Association (UK).

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Conferences organised and /or sponsored by The Geneva Association

2003

September

26 Rome **Montepaschi Vita** "The Paradigms of Value: The risk shift from public to private: what role for insurance and financial groups?"

October

8 Zurich **Insurance Summit**, hosted by Swiss Re at the Rüslikon Center and in Association with The Geneva Association and the European Financial Forum

November

5 Athens **1st Annual Round Table of C.R.O.s (Chief Risk Officers)**

6-7 Athens **18th M.O.R.E Seminar on Uninsured Risks**

25 Geneva **President's Lecture** on the occasion of the 30th Anniversary of the Geneva Association

27-28 Zurich **Seminar on The Economics of an Ageing Society: The Future of Funded Systems in Europe** in co-operation with SwissRe Rüslikon Dialogue Centre and Fondation Avenir Suisse

December

4 Zurich **Meeting of The Geneva Association's Communication Advisory Council**, hosted by Zurich Financial Services

4-5 Zurich **1st Chief Communication Officers' Meeting**, hosted by Zurich Financial Services

9 Paris **3rd International Conference on Risk and Insurance Economics**, co-organised with the FFSA

2004

January

13 New York **Joint Industry Forum for P&C Insurance Industry**, co-sponsored by The Geneva Association

February

6 Amsterdam **6th Meeting of the Geneva Association's Amsterdam Circle of Chief Economists (ACCE)**, hosted by ING

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Den Haag **4th ASEC Seminar on Vulnerabilities in Infrastructure: Rethinking the New Service Economy**