Alcohol and traffic accidents in insurance perspective

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ABSTRACT

Both experimental and epidemiological research show that driving under influence of alcohol entails an elevated accident risk.

The contribution from drunken driving to the level of traffic accidents differs between countries as do the legal system and contents of counter-measures.

It is not so well observed or analysed which influence motor insurance with its terms and conditions has on traffic safety and drunken driving. Still it looks reasonable to anticipate that the insurance system together with the legal system are of importance for a more sober traffic with less accidents.

The paper gives some notes with examples from Scandinavia.

STATISTICS OF PRIVATE CARS AND ACCIDENTS IN SWEDEN 1971-1995

The statistics from the Swedish insurance industry show the development of the number of cars and accidents. During the last 25 years the number of private cars has changed from an increase during the first two decades to a stable level in the 1990's. This is shown in Table 1. It is a reflection of changes in the private economy among people from a long period of growth to a period of recession. The population figures during the same period have increased from 8.1 million to 8.9 million. It means that during 25 years the number of inhabitants per car has decreased from 3.4 in 1971 to 2.4 in 1990 and then remained at that level during the years thereafter.
As far as accidents in traffic are concerned the statistics (see table 1) indicate that traffic has become more safe. Since 1988, the number of advised claims has decreased in motor third party insurance, which is compulsory for every car owner according to the law. As percentage of the number of cars in traffic, claims frequencies were 14.4 % in year 1971, 11.8 % in 1980, 11.4 % in 1990 and 8.7 % in 1995. This means a decrease of approx 40 % in relative risk for a car accident during those 25 years.

The development of fatalities in traffic was furthermore encouraging. The absolute figure decreased from 862 in 1971 to 527 in 1995. As percent of the number of cars, it means a decrease of the claims frequency from 0.37 per mille to 0.15. This change is as big as 60 % towards safer traffic in Sweden.

The number and frequencies of serious personal injuries in traffic accidents correspond with deaths and are regularly about five time higher than fatalities. On the other hand, the development of slight non-fatal personal injuries is not equally good. The definition of those claims - if there is a small injury or not - can be subject to different practices depending on the source of information.

TRAFFIC SAFETY POLICY

The number of vehicles and the density in traffic during the last five years are influenced by a less favourable private economy, increased car and petrol prices as well as other economically based factors. An active public traffic safety policy has to be added to the factors of explanation and is definitely of utmost importance for what is described as safer traffic. During the last 25 years, different new rules and regulations have been introduced for traffic safety reasons, such as:

- speed limits, differentiated at 50, 70, 90 and 110 kilometres per hour
- yearly car inspections of vehicles older than two years
- stricter per mille rules concerning driving under the influence of alcohol (DUI)
- information campaigns following up the revolutionary reform in 1967 when all drivers had to change from driving on the left side of the road to the right side.
• new insurance rules in terms, conditions and tariff structure were introduced together with a unified no-claim-bonus system and car classification system (1964) for policyholders in all companies and a new Traffic Insurance law in 1976.

Public opinions have mostly preceded the law-making. Swedish popular movements dealing with traffic safety have played an important role in this context. An example is the campaign at the end of the 1980's for "Zero per mille" of alcohol in traffic, which The Abstaining Motorists' Association (MHF) initiated and successfully performed.

It seems like the road and traffic authorities do not stop at the positions reached. They have adopted idealistic movements' views and seem to be prepared to use a visionary philosophy. "Vision of zero" has been introduced by the public authority for traffic safety (Vägverket), described as "an idea of a road transport system without health risks".

ALCOHOL CONSUMPTION, TRAFFIC ACCIDENTS AND DUI-CASES.

As in most European countries the alcohol consumption in Sweden has decreased during many years. The official sales figures give a good estimation of the consumption. The average consumption, calculated as sales of alcoholic beverages in litres of absolute alcohol per inhabitant aged 15 or over, was 6.10 litres in 1995. It was the lowest figure during the last 25 years, some 13 % lower than 1971 and 21 % lower than in 1976 when the consumption reached its peak during the period (table 1).

The number of cases concerning driving under the influence of alcohol (DUI) has also decreased as shown in table 1 and diagram 1. The statistics concerning traffic accidents, which have been investigated by the police and in which the drivers have been suspected to have a blood alcohol content above the legal limit. The development since 1971 is very satisfying with a decreasing number of cases. DUI-development seems to be better than the total number of traffic accidents and the number of fatalities. Compared with the sales of alcohol, there is a clear correlation with DUI-cases as shown (Table 1 and diagram 2).
POSITIVE DEVELOPMENT DURING THE 1990'S

As indicated in the statistics, the situation for DUI-cases has been especially favourable during the last 5-7 years. This is confirmed by more profound investigations. In post-mortem examinations by legal pathologists of fatalities in traffic a yearly decrease of DUI-cases has been shown, from 31% in 1990 to 21% in 1994.

It is reasonable to anticipate that changes in law have played an important role to the changed DUI-behaviours:

• the legal per mille limit concerning drunken drinking was lowered on 1 July, 1990 from 0.5 to 0.2. The per mille law was originally introduced in 1941 with a lower level of 0.8 and then changed in 1957 to 0.5. Above the level of 1.5 the regular sentence was prison.
• breath tests on suspected drunken drivers was introduced as from 1 July, 1990.
• stricter rules from 1 July, 1991 in order to get the driving licence back after being sentenced for DUI, and with an additional requirement of a sober lifestyle.
• the upper limit for the more qualified drunken driving was lowered from 1.5 per mille to 1.0 from 1 February, 1994.
• the sanctions according to the law are fines or imprisonment up to two years if the per mille level is above 1.0. One month's imprisonment is the normal sentence for drunken driving at the upper per mille limit. Seizure of the driving license for one month or more is an additional sentence as well as a possible but not so often used forfeit of the vehicle. A more nuanced range of sentences has been recommended during the last decade, which considers that drunken drivers often have alcohol problems and need care and treatment.

The effects of those changes have been analysed and a public report have been presented during 1996. The researchers have informed that there are statistical proof of fewer accidents because of the lower per mille limit. Fatalities decreased with some 8%.

As far as sanctions are concerned judges have been criticized for using different practice when sentencing people for drunken driving. An investigation shows that in 1995 in cases of 1.0 per mille or more, 60% of all cases were sentenced to prison, 31% to protective supervision or rehabilitation and in 8% conditional sentence. There is a wide spread round