

## Summary

### **The reduction in the number of fines and out-of-court settlements for traffic offences further explained**

The Dutch police and the judicial authorities try to maintain law and order by punishing (minor) offences with various types of fines and out-of-court settlements. Most of the fines and settlements concern speeding offences, but other (traffic) offences on some crimes are also fined.

For the past three years the actual proceeds of fines and settlements lag behind the expected proceeds. Up to 2009 the actual proceeds still followed an upward trend, but since 2010 they are declining. The question is what caused this reversal? Why is the prediction error so large? Is the trend reversal a reaction of the general public and police-officers to the various increases in fine rates? From earlier research we know that the forecasts of fine proceeds did take into account the behavioural effects of fine increases by the general public and police-officers, but not in a structured manner. This research also showed that the number fines and settlements for traffic offences exhibits the largest decrease, but that the Justice department experienced no problems in processing the fines and settlements.

To gain more insight into the causes of the trend reversal and the behavioural effects of the general public and police-officers, the fines and settlements of the past four years are analysed. The main focus is on speeding offences detected either by a single (mobile) speed camera or by average speed measuring systems (multiple cameras installed along a fixed route), since this is the largest category within fines and settlements. In addition, fines and settlements for drinking and driving and fines and settlements after being stopped by a police-officer are also included in analysis.

The number of fines and settlements for speeding offences detected by average speed measuring systems have decreased by 59% between 2007 and 2010. It turns out that 35% of this decrease can be attributed to the behavioural effects of motorists. The behavioural effects are not so much caused by the increase in the fine rate, but more by an increased awareness of the probability of being caught and fined when driving past an average speed measuring system. About 32% can be attributed to the number of days that the average speed measuring system is out of order due to planned or unplanned road works and/or weather conditions. About 7% of the decrease is caused by a reduction in traffic due to the economic crisis and/or weather conditions and about 22% is caused by general wear and tear of the average speed measuring systems. The remaining 3% is due to unknown causes. Not only the number of fines and settlements has decreased but also the average speed limit transgression. The price elasticity of an increase in fine rates is estimated to be 0.23, meaning that a 1% increase in fine rates leads to a decrease of 0.23% in the number of fines and settlements detected by average speed measuring systems. Especially (young) frequent offenders of speeding are sensitive to price changes. On roads with a low speed limit, more speeding offences are recorded.

The number of fines and settlements detected by speed cameras on motorways declined with 33% between 2007 and 2010. About 55% of this decrease can be attributed to a reduction in traffic due to the economic crisis. The other 45% can be attributed to behavioural effects of the general public or changing police priorities. Since the average speed limit transgression did not change, changing police priorities is the most likely explanation. The number of fines and settlements detected by speed cameras on other roads than motorways actually increased between 2007 and 2010 with 15%. Again changes in police priorities is the most likely explanation. The average speed limit transgression on roads other than motorways decreased. Because the decrease is very gradual, it cannot be attributed to the changes in fine rate on April 1st, 2008 and January 1st, 2010.

The number of fines and settlements after being stopped by a police-officer decreased by 23% between 2007 and 2010. About 78% can be attributed to a reduction in traffic due to the economic crisis, 9% is caused by letting go of fine targets for police-officers and about 13% can be attributed to behavioural effects of the general public and police-officers. The police strikes in the first quarter of 2008 had a significant negative effect on the number of fines and settlements. No evidence was found for the claim that the increase in the fine rate on April 1st, 2008 led to an decrease in the number of fines and settlements. This number did decrease but as a consequence of economic en demographic developments and seasonal influences. However, after the increase in the fine rate on January 1st, 2010 it turns out that a 1% increase leads to a 0,09% decrease in the number of fines and settlements. Whether this is a behavioural effect of the general public or of individual police-officers cannot be ascertained.

The number of fines and settlements for drinking and driving has decreased with 26% between 2007 and 2008. Whether this is caused to less drunk drivers in general or by less traffic due to the economic crisis cannot be ascertained, because there is no data available on the actual number of motorist being checked. However the average blood alcohol level of those motorists that were fined for drinking and driving, has decreased with 5% between 2007 and 2010. The police strikes in the first quarter of 2008 did not have any effect on the number of fines and settlements for drinking and driving.

The conclusion is that the main reason for the difference between expected and actual number of fines and settlements are several developments that occurred between 2007 and 2010, some of which could not have been foreseen the ministry of Justice. The economic crisis led to less road traffic, there was a lot of general wear and tear in the average speed measuring systems and many of the average speed measuring systems were out of order due to planned and unplanned road works. Also the ministry of Justice did not take sufficiently into account that motorists will adjust their behaviour after having been initially confronted with many or high fines in the first months after an average speed measuring system is installed.

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