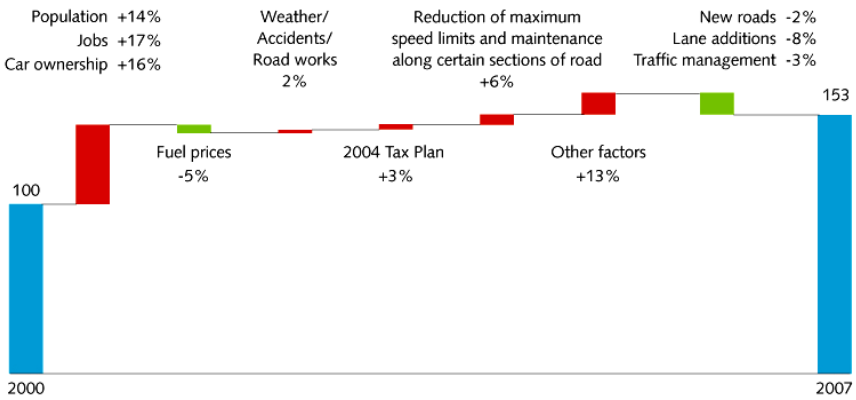
Summary

The Mobility Balance 2008 presents and explains the trends in hours of delay on the trunk road system during the 2000-2007 period. This background document offers supplementary research results, as well as an overview of all results. A clearer pattern in hours of delay has emerged, the explanation of the growth of hours of delay has been worked out in detail and a comparison has been made with previously planned policy.

During the 2000-2007 period, hours of delay on the trunk road system increased by 53%. Hours of delay increased primarily during and around peak hours. The largest increase during and around the morning rush took place between 2003 and 2008 along a limited number of sections of roads that in 2003 already handled the heaviest traffic volumes and recorded the highest hours of delay. Increases in hours of delay were experienced primarily on the trunk roads around Amsterdam and Utrecht.

Changes in the population of municipalities have resulted in higher traffic volumes and, consequently, a 14% increase in hours of delay. Changes in the number of jobs and increased car ownership led to a 17% and 16% increase, respectively. The rise in fuel prices led to a 5% decrease in hours of delay, whereas trends in weather conditions, accidents and road works resulted in a cumulative increase of 2%. The latter could primarily be attributed to road works during the 2000-2003 period.

Figure S1
Explanation of the increase in hours of delay on the trunk road system
Source: KiM in cooperation with MuConsult



The increase in hours of delay can be partly attributed to the 2004 Tax Plan, which reduced taxes on the reimbursement of commuter expenses, primarily by repealing the 30-kilometre threshold. Following the Plan's introduction, the use of cars for commuting purposes, particularly for longer distances, increased substantially. Its share in the increase in hours of delay during the 2000-2007 period is estimated at 3% and will increase in the years to come to 9% (Netherlands Bureau for Economic Policy Analysis, 2004).

The introduction of the 80-kph speed limit, combined with patrols along certain sections of roads, implemented to achieve improvements in air quality, led to a 6% increase in hours of delay in 2007 (compared to 2000). Variability in speed limits and their enforcement along extremely busy sections of road influenced the tempo of traffic flows. The 6% increase not only applies to traffic on sections of roads where the measure was in force, but also on traffic approaching these sections.

The opening of new roads resulted in a 2% reduction. Lanes used during peak hours (peak hour lanes) and road widening schemes led to an 8% reduction. Traffic management measures (primarily route information) resulted in a 3% reduction in hours of delay. Without these measures to expand road network capacity and increase its use, hours of delay would have increased 66% during the 2000-2007 period. The measures implemented made it possible to limit this increase to 53%.

According to the policy documents Samenwerken aan Bereikbaarheid (Working Together to Improve Accessibility), published in 1996, and Benutting 2002 (Capacity Use 2002), hours of delay if driving speed drops to less than 50 kph were forecast to increase 41% – in the absence of policy – during the 2000 2006 period. Road widening schemes, as well as the construction of peak hour lanes and new roads could have limited this increase to 18%. Hours of delay, however, increased by 43% during the 2000-2006 period. Hours of delay in 2006 were 21% higher than previously expected. Of this increase, 11% can be attributed to the fact that, during this period, a large part of the proposed policy was not implemented (e.g. road widening scheme for the Holendrecht Oudenrijn section of the A2 motorway) or was abandoned (e.g. peak hour lane on the A1 motorway near Barneveld in the direction of Hoevelaken). The remaining 10% could be attributed to the fact that other factors resulted in increased hours of delay than had previously been expected: greater economic activity, 2004 Tax Plan and lower speed limits combined with patrols along certain sections of roads. Road-widening schemes and the creation of peak hour lanes and new roads proved as effective as expected.

Figure S2
Hours of delay on the trunk road system according to schedule (Samenwerken aan Bereikbaarheid (Working Together to Improve Accessibility) and Benutting 2002 (Capacity Use 2002) policy documents) and completion