

# Supplementary Materials: Environmental Impact of Subsidy Concepts to Stimulate Car Sales in Germany

Malte Scharf <sup>1</sup> , Ludger Heide <sup>2,†,\*</sup> , Alexander Grahl <sup>3,†</sup> , Anne Magdalene Syré <sup>4,†</sup>  and Dietmar Göhlich <sup>5</sup> 

**Table S1.** Direct CO<sub>2</sub> emissions per kilometer

| segment            |        | before 2003 | 2003-2007 | 2008-2009 | 2010-2011 | 2012-2013 | 2014-2015 | 2016-2017 | 2018-2020 |
|--------------------|--------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| mini class         | petrol | 146         | 126       | 119       | 113       | 110       | 108       | 108       | 108       |
|                    | diesel | 106         | 106       | 102       | 103       | 104       | 120       | 110       | 110       |
| small class        | petrol | 146         | 147       | 139       | 131       | 124       | 115       | 112       | 112       |
|                    | diesel | 175         | 124       | 118       | 109       | 106       | 97        | 99        | 99        |
| compact class      | petrol | 175         | 169       | 156       | 147       | 133       | 127       | 125       | 125       |
|                    | diesel | 144         | 144       | 133       | 123       | 114       | 108       | 109       | 109       |
| middle class       | petrol | 187         | 196       | 178       | 169       | 155       | 145       | 148       | 148       |
|                    | diesel | 148         | 166       | 153       | 139       | 131       | 122       | 120       | 120       |
| upper middle class | petrol | 230         | 223       | 204       | 186       | 176       | 173       | 166       | 166       |
|                    | diesel | 159         | 195       | 172       | 154       | 145       | 135       | 129       | 129       |
| upper class        | petrol | 263         | 278       | 269       | 235       | 228       | 228       | 222       | 222       |
|                    | diesel | 216         | 228       | 208       | 183       | 168       | 162       | 154       | 154       |
| SUVs               | petrol | 234         | 234       | 209       | 182       | 156       | 142       | 172       | 172       |
|                    | diesel | 228         | 228       | 199       | 173       | 147       | 135       | 155       | 155       |
| mini vans          | petrol | 169         | 169       | 162       | 152       | 136       | 134       | 133       | 133       |
|                    | diesel | 151         | 151       | 148       | 139       | 118       | 113       | 111       | 111       |
| large vans         | petrol | 191         | 191       | 181       | 163       | 140       | 138       | 143       | 143       |
|                    | diesel | 172         | 172       | 170       | 154       | 137       | 133       | 136       | 136       |

**Table S2.** Fuel consumption per 100 kilometers

| Segments           |        | before 2003 | 2003-2007 | 2008-2009 | 2010-2011 | 2012-2013 | 2014-2015 | 2016-2017 | 2018-2020 |
|--------------------|--------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| mini class         | petrol | 5.1         | 5.1       | 5.1       | 4.9       | 4.7       | 4.7       | 4.6       | 4.6       |
|                    | diesel | 3.9         | 3.9       | 3.9       | 3.9       | 3.9       | 4.4       | 4.2       | 4.2       |
| small class        | petrol | 6           | 6         | 6         | 5.6       | 5.4       | 5.2       | 4.8       | 4.8       |
|                    | diesel | 4.5         | 4.5       | 4.5       | 4.1       | 4         | 3.8       | 3.7       | 3.7       |
| compact class      | petrol | 6.7         | 6.7       | 6.7       | 6.3       | 5.7       | 5.5       | 5.4       | 5.4       |
|                    | diesel | 5           | 5         | 5         | 4.7       | 4.3       | 4.1       | 4.1       | 4.1       |
| middle class       | petrol | 7.7         | 7.7       | 7.7       | 7.3       | 6.7       | 6.4       | 6.4       | 6.4       |
|                    | diesel | 5.8         | 5.8       | 5.8       | 5.2       | 4.9       | 4.8       | 4.5       | 4.5       |
| upper middle class | petrol | 8.8         | 8.8       | 8.8       | 8         | 7.6       | 7.6       | 7.2       | 7.2       |
|                    | diesel | 6.5         | 6.5       | 6.5       | 5.8       | 5.5       | 5.3       | 4.9       | 4.9       |
| upper class        | petrol | 11.6        | 11.6      | 11.6      | 10.1      | 9.8       | 9.9       | 9.6       | 9.6       |
|                    | diesel | 7.8         | 7.8       | 7.8       | 6.9       | 6.3       | 6.2       | 5.8       | 5.8       |
| SUVs               | petrol | 9           | 9         | 9         | 7.8       | 6.7       | 6.4       | 6         | 6         |
|                    | diesel | 7.5         | 7.5       | 7.5       | 6.5       | 5.6       | 5.3       | 4.9       | 4.9       |
| mini vans          | petrol | 7           | 7         | 7         | 6.5       | 5.8       | 5.8       | 5.7       | 5.7       |
|                    | diesel | 5.6         | 5.6       | 5.6       | 5.2       | 4.4       | 4.3       | 4.2       | 4.2       |
| large vans         | petrol | 7.8         | 7.8       | 7.8       | 7         | 6         | 6         | 6.2       | 6.2       |
|                    | diesel | 6.4         | 6.4       | 6.4       | 5.8       | 5.2       | 5         | 5.1       | 5.1       |

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