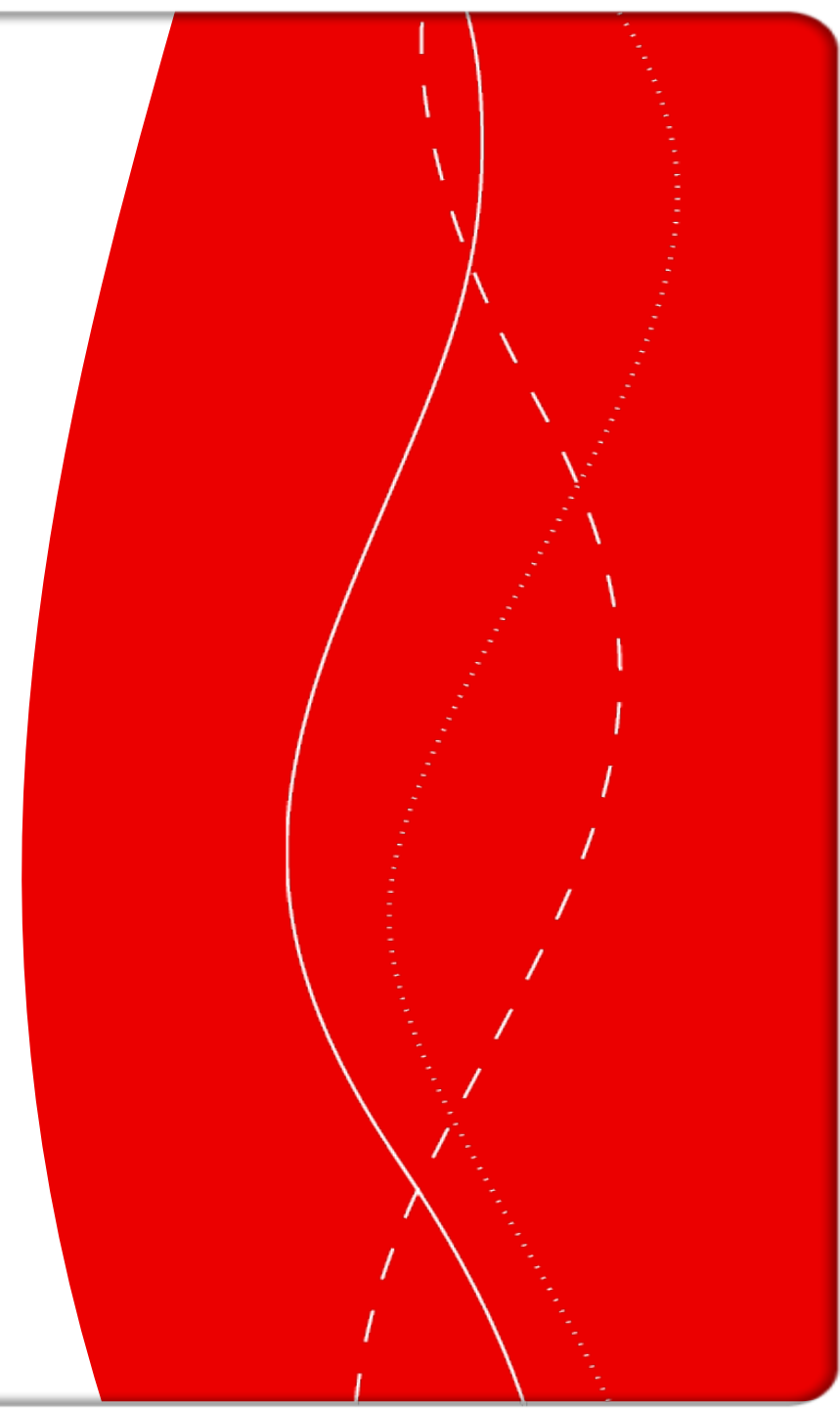




A weight-distance tax in Sweden - the committee proposal

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one out of five committee secretaries



The Road Wear Tax committee (Vägslitageskattekommittén)

- Established by the Government in April 2015 to propose the design of a distance tax for heavy vehicles' wear and tear of roads. This included
 - ... to consider alternative technical designs of the system;
 - ... to develop a proposal for the organisation of tax collection, and clarify the division of responsibility between the stakeholders as well as the necessary procedural rules.
 - ... to develop proposals for the design and extent of tax exemption, including tax levels and grounds for differentiation of tax rates.
 - ... to assess the consequences of the tax for trucking and the industry at large.
- Final report delivered in March 2017; *Vägskatt/Road Tax*; SOU 2017:11
- ... and flushed by the government at delivery

Scope and level of the tax proposal

Which vehicles?

- All trucks and truck combinations \geq 12 ton
- Emergency, military and veteran vehicles exempted

Which roads?

- All national and communal roads and streets (140 000 km)
- ...but private roads exempted.

Who is liable for paying the tax?

- The owner
- except if there is an EETS payment broker, because then the EETS road user is taxable

Two modes for payment

- Monthly declaration - electronic logg
- Route ticket
- Booked and paid via the Transport Agency's website or app (or similar to a petrol station near the border)
- A trip between A and B is described, using a roadmap. The system proposes a route that, after any adjustments, is confirmed by the individual. The ticket must be paid before the journey begins.

The electronic logg alternative

An electronic log is mandatory for those who choose the system with monthly declarations

The log stores how the truck is used within Sweden's borders

The log is handled by a licensed Service Provider

The Service Provider - an (already existing) intermediary for making the market work

The service provider fills several functions for both the truckers and the authorities:

- Stores information about how the truck is used on the roads
- Reports relevant information to the authorities
- Provides safe and secure storage of information that the authorities need in order to verify that the correct tax is paid

The organisation of tax collection

Truck owners must be affiliated with a licensed service provider

The service provider stores information about how the truck is used on the roads. The service provider reports to the Transport Agency every day how the truck has been running

Once a month, the truck owner will confirm or change the information that the service provider has reported to the Transport Agency

Special solutions in the form of route tickets are proposed for seldom and temporary visitors

Control mechanisms

Camera monitoring (about 400 fixed and mobile control stations)

Staffed (random) road-side controls

Automated controls of consistency in the central system

... in combination with the common tax control system

Supervision of service providers

From a user perspective

A monthly tax declaration

- The user hires a service provider
- Vehicle equipment is installed or existing equipment is also used for the new purpose
- The vehicle is then cleared for traffic
- The user (or the service provider) declares electronically every month
- The user (or the service provider) pays the tax.

Route ticket

The rider purchases (= books and pays) a license to use a specific route at a certain time

The vehicle may then drive

No subscription or equipment is required.

Basis for cost estimates

The Eurovignette Directive (1999/62/EG) indicates that the following costs are eligible as a basis for the level of a levy:

Road construction costs

Road surface renewal

Noise

System operation costs

The Directive also stipulates that charges must include an emission cost component

The proposal:

Road surface renewal

Emissions and noise

System operation costs

Eligible as basis for differentiation

... according to the Directive:

- Wear and tear
- Emissions

...and in the proposal:

- Registered vehicle (maximum) weight plus no. of axles and the installation (or not) of towbar; EURO emission class

No differentiation

- ... for actual weight, for time of day, for where the vehicle is used nor for whether trailer actually is attached.
- Motive: Even if the technology for differentiating taxes across these dimensions is available, it is not yet sufficiently robust against manipulation and tax evasion.

The basis for differentiation for weight and emissions (other than CO2)

- Nilsson, J-E., K. Svensson, M Haraldsson (2017). Estimating the marginal costs of road wear. VTI Working Paper
- Nerhagen, L., Björketun, U., Genell, A., Swärdh, J-E. & Yahya, M-R. (2015). Externa kostnader för luftföroreningar och buller från trafiken på det statliga vägnätet – Kunskapsläget och tillgången på beräkningsunderlag i Sverige samt några beräkningsexempel. (VTI notat 4-2015). Linköping: VTI
- Summarized in Nilsson, J-E., L. Nerhagen, M. Haraldsson, J-E. Swärdh, G. Isacsson, S. Yarmukhamedov, K. Odolinski, I. Vierth, J. Österström (2017). The efficient use of infrastructure – is Sweden pricing traffic on its roads, railways, waters and airways at marginal costs? VTI Working Paper

Tax; SEK/km (year 2021)

Vehicle without towbar

| Tax weight, kilogram | EURO I | EURO II | EURO III | EURO IV | EURO V | EURO VI |
|---|--------|---------|----------|---------|--------|---------|
| Heavy vehicles, two axles | | | | | | |
| 12 000–14 499 | 0,64 | 0,63 | 0,57 | 0,48 | 0,45 | 0,38 |
| 14 500–15 499 | 0,79 | 0,75 | 0,70 | 0,60 | 0,57 | 0,46 |
| 15 500–16 499 | 0,88 | 0,85 | 0,79 | 0,70 | 0,66 | 0,56 |
| 16 500– | 1,17 | 1,13 | 1,07 | 0,96 | 0,93 | 0,81 |
| Heavy vehicles, three axles | | | | | | |
| 12 000–23 499 | 0,82 | 0,78 | 0,72 | 0,60 | 0,57 | 0,45 |
| 23 500–24 499 | 0,91 | 0,87 | 0,80 | 0,67 | 0,64 | 0,51 |
| 24 500– | 1,05 | 1,01 | 0,94 | 0,81 | 0,78 | 0,65 |
| Heavy vehicles, four or more axles | | | | | | |
| 12 000–29 499 | 0,87 | 0,83 | 0,76 | 0,63 | 0,60 | 0,47 |
| 29 500–30 499 | 1,05 | 1,00 | 0,92 | 0,75 | 0,70 | 0,57 |
| 30 500– | 1,11 | 1,06 | 0,97 | 0,81 | 0,76 | 0,63 |

Tax; SEK/km (year 2021)

Vehicle with towbar

| Tax weight, kilogram | EURO I | EURO II | EURO III | EURO IV | EURO V | EURO VI |
|--|--------|---------|----------|---------|--------|---------|
| Heavy vehicles, two axles | | | | | | |
| 12 000–28 499 | 0,97 | 0,92 | 0,85 | 0,71 | 0,66 | 0,56 |
| 28 500– | 1,46 | 1,37 | 1,37 | 1,20 | 1,18 | 1,05 |
| Heavy vehicles, three or more axles | | | | | | |
| 12 000– | 1,69 | 1,62 | 1,62 | 1,28 | 1,18 | 1,05 |

Level comparison with other EU Member Countries, year 2021

| Land | Lastbil (utan drag) 14 ton, 2 axlar | Lastbil (utan drag) 18 ton, 2 axlar | Lastbil (med drag) 18 ton, 2 axlar | Lastbil + släp, 40 ton, 2+3 axlar |
|----------------|--|--|---------------------------------------|--------------------------------------|
| Ryssland | 0,23 | 0,23 | 0,23 | 0,23 |
| Polen | 0,64 | 0,64 | 0,64 | 0,64 |
| Sverige | 0,45 | 0,93 | 1,18 | 1,18 |
| Belgien | 1,26 | 1,26 | 1,30 | 1,30 |
| Tjeckien | 0,70 | 0,70 | 0,70 | 1,73 |
| Tyskland | 1,05 | 1,05 | 1,05 | 1,73 |
| Slovakien | 1,75 | 1,75 | 1,75 | 1,85 |
| Ungern | 1,48 | 1,48 | 1,48 | 3,04 |
| Österrike | 2,04 | 2,04 | 2,04 | 4,53 |
| Schweiz | 3,52 | 4,53 | 4,53 | 10,06 |

Not: SEK/km. **EURO V** vehicle. Level for **motorways** in countries that differentiate charges.

Responsibilities of government agencies

The Tax Agency is the tax authority (and thus has the ultimate responsibility for taxation and control)

But the Transport Agency administers the tax and make the most day-to-day decisions. The Transport Agency also issue permits and supervises service providers

The Traffic Administration owns and handles roadside equipment

The police assists in (manual) roadside controls

The Bailiff (Kronofogden) is responsible for collection of bills that have not been paid

Assessment of the impact of the system

- Amount of traffic and modal shift
- Tax revenue
- Consequences for transport policy objectives, incl. internalisation
- Industry; consequences for
- Transport costs
- Production costs
- SMEs
- Regions

Impact on traffic

Samgods: Road - 4,4 % tonkm (-5,4% fkm)
 Railway + 3,7 %
 Sea transport + 2,5 %

Net consequences for revenue, Billion SEK

| | Short run | Long run |
|------------------------------------|---------------------|---------------------|
| Changes in revenue | | |
| Road tax (gross effect) | 3,8–4,7 | 3,9–4,8 |
| Skattefel (?) | -0,03– -0,04 | -0,03– -0,04 |
| Change of corporations' profit tax | -0,65– -0,79 | -0,65– -0,79 |
| Change of fuel tax | 0 | -0,18 |
| Particular charges | 0,069 | 0,069 |
| Vinjett | -0,865 | -0,865 |
| Track user charges | 0 | 0,03 |
| Sum | 2,16–3,22 | 2,11–3,17 |
| Costs increases | | |
| Investment cost | -0,065– -0,085 | -0,065– -0,085 |
| Annual cost | -0,365– -0,485 | -0,365– -0,485 |
| Sum | -0,43– -0,53 | -0,43– -0,53 |
| TOTAL | 1,6–2,8 | 1,5–2,7 |

Economic assessment

Tax revenue – transfer with no net effect for society
except if considering the Marginal Cost of Public Funds ("tax factor")

Economic benefits – reduced externalities (road wear plus emissions)

Economic costs – costs for investing in and operating the system

Positive NPV if the "tax factor" is included in the assessment

User costs

Average haulier (average driving distance)

20 000–50 000 SEK/year

Long haul haulier (90:e percentilen) Timber trucks, trucks delivering freezing products, tractor units that can be used for multiple-type trailers

140 000–220 000 SEK/year

Impact on industry

| | Transport Cost increase | Production cost increase |
|-------------------------------|----------------------------|--------------------------|
| Trade | | |
| Other wood industry | 8 % | 0,2–0,6 % |
| Food industry | 8 % | Ca 0,4 % |
| Forrestry | 6 % | 0,4–0,5 % |
| Metal | 3 % | 0,1–0,2 % |
| Pulp/papper | 3 % | 0,05–0,2 % |
| Engineering | 10 % | 0,2 % |
| Construction | 4 % | 0,10–0,15 % |
| Automotive industry | 6 % | 0,05–0,1 % |
| <i>Engineering industries</i> | 7 % | Ca 0,1 % |
| <i>Manufacturing, average</i> | 5 % | Ca 0,1 % |

Thank you for your attention
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Tänkt tidplan

| | |
|------------|--|
| 2017–2018 | Remiss, lagrådsremiss, proposition, riksdagsbeslut och förberedelseprojekt |
| 2018–2020 | Införandeprojekt, systembyggnation och systemtest |
| 1 maj 2021 | Skatten införs |

Ökad effektivitet i transportsektorn

Hänsynsmålet: positivt (överflyttat till jvg, sjö
överfl till tyngre lastbilar=effektivare)

Funktionsmålet: negativt

Samhällsekonomisk effektivitet & hållbarhet:

- ökat kostnadsansvar
- effektivare styrning med mer precis differentiering
- utjämnade konkurrensvillkor
- minskad asymmetri pga diesel köpt utomlands

Ökad internaliseringsgrad

Fordonsflottan använder mer biodrivmedel

Genomsnittlig drivmedelsskatt minskar

Vägskatten höjer internaliseringsgraden

Vägskatt + drivmedelsskatt: Överinternalisering för enstaka fordonstyper

Övervältringseffekter

Svårt för exportföretag att övervältra på konsumenter

⇒ övervältring "bakåt" i förädlingskedjan, på råvaruproducenter och mellanled:

- * skogsägare och skogsbruk, respektive
- * jordbruk, mjölkbönder och mejerinäring

