External Effects II

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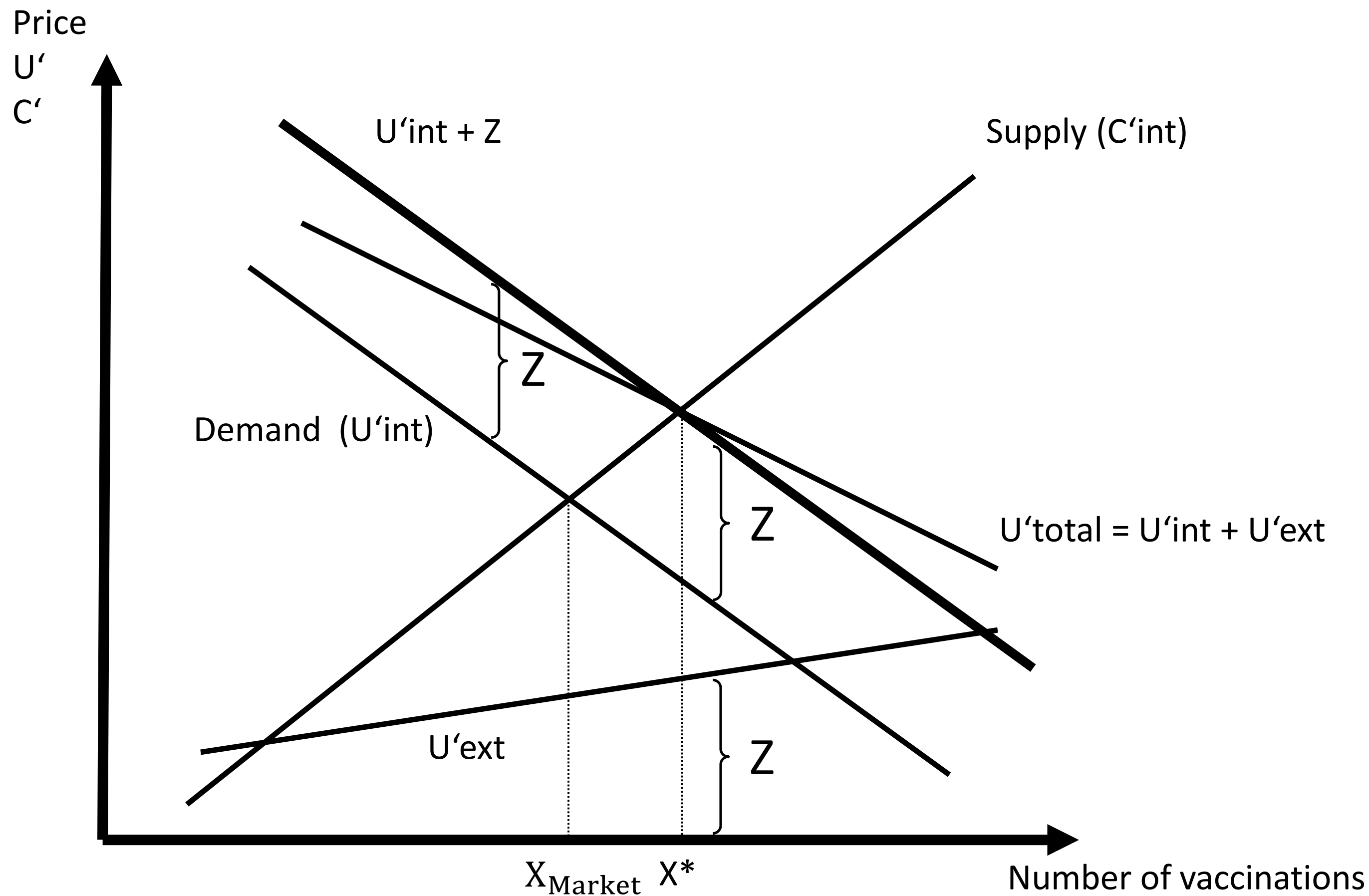
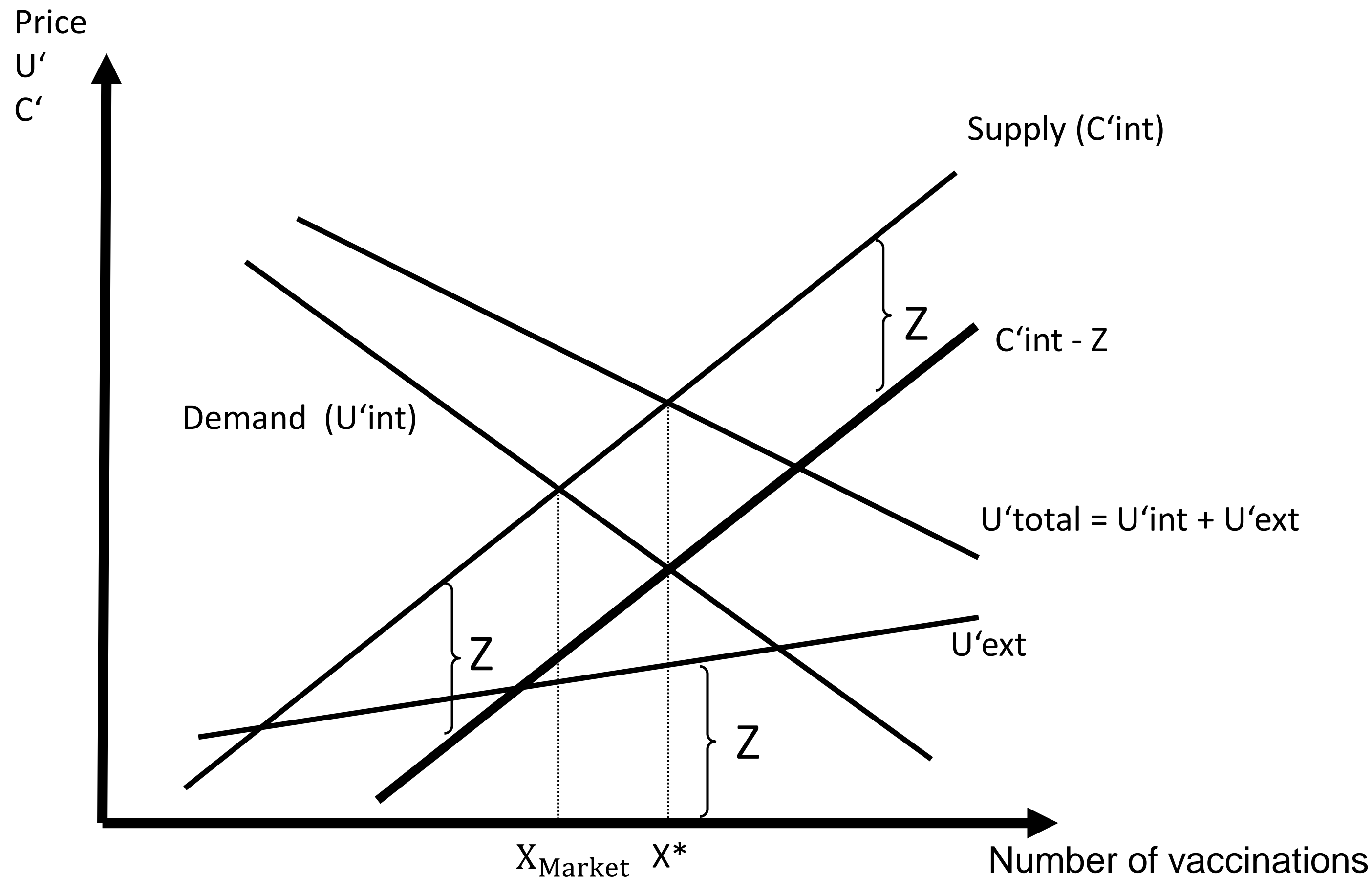
Internalizing positive external effects

- With positive external effects, the manufactured (or consumed) supply is less than the total overall optimal amount would be.
- By paying a subsidy in the amount of optimal externality, the socially optimal supply can be achieved.
- A volume-related subsidy payment to the provider shifts the marginal costs curve downwards.
- A volume-related subsidy payment to the customers shifts the demand curve upwards.

Internalizing positive external effects by subsidizing demand



Internalizing positive external effects by subsidizing supply



Government does not always have to intervene

- Inframarginal externalities can be pareto relevant or pareto irrelevant
- Pecuniary externalities do not lead to welfare loss for society as a whole
- Fixed externality costs can be pareto relevant or pareto irrelevant
- Sometimes internally negotiated solutions can lead to efficient solutions (Coase Theorem)
- Not all externalities of underlying preferences are seen as legitimate (e.g. interfering preferences)

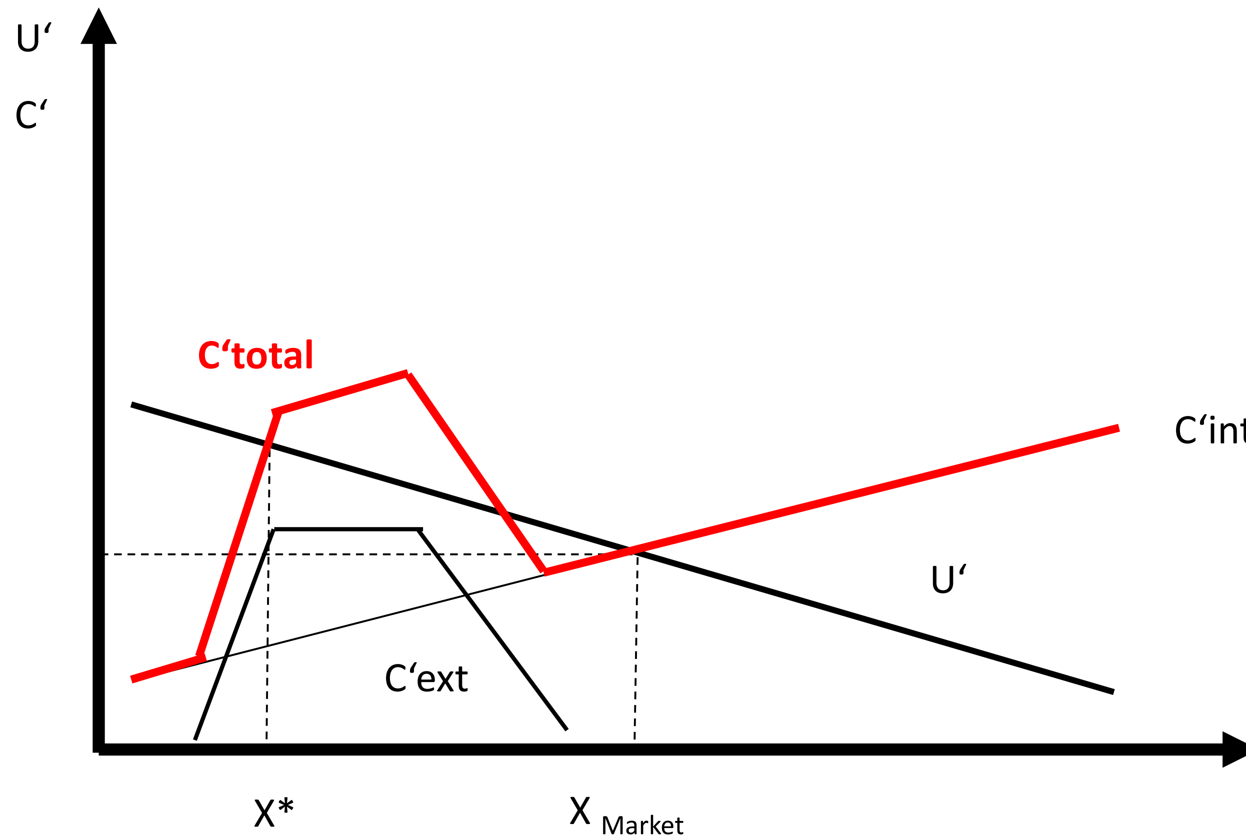
Inframarginal Externalities

- Inframarginal externalities are externalities that arise when there is a low level of production; with current levels they are however at marginal zero: the very last unit produced does not cause externalities.

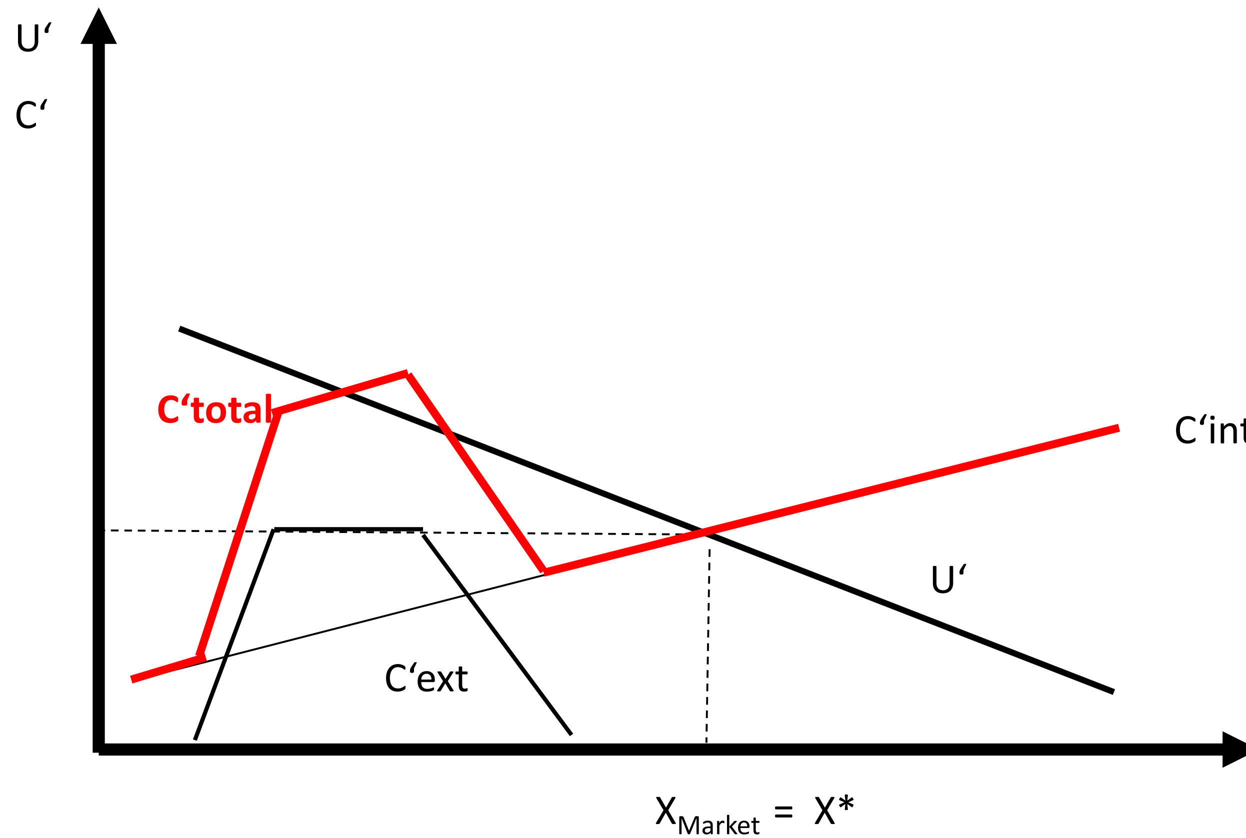
Example:

- Initially, heavy metal pollution of a lake is very significant for local fishermen
- At a certain point, however – when all fish are dead – the fisherman no longer cares how polluted the lake is.

Inframarginal Externalities are sometimes pareto relevant…



…but then, sometimes not.

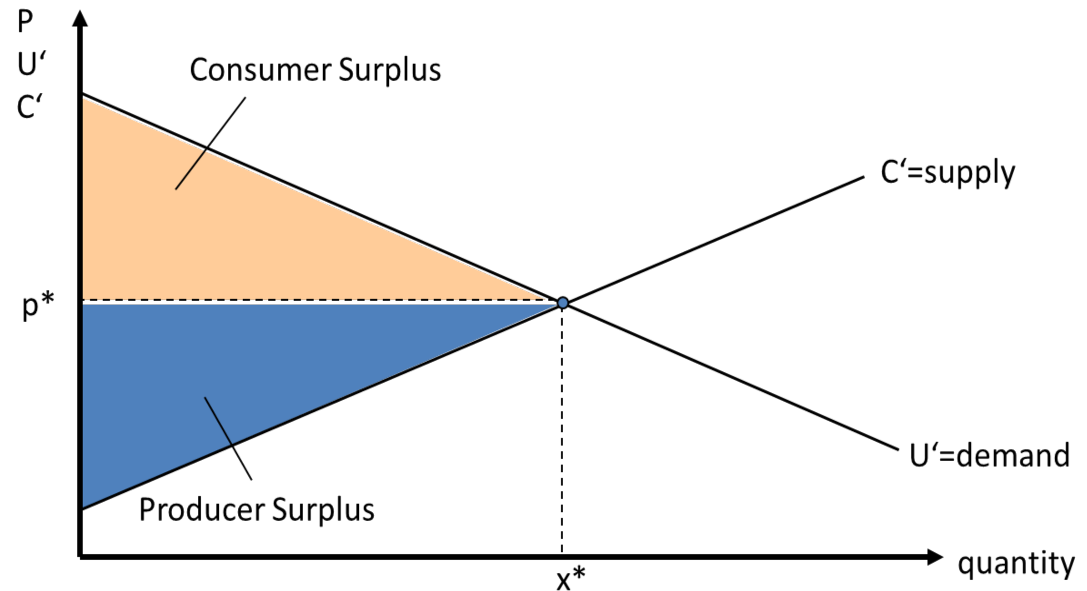


Pecuniary Externalities

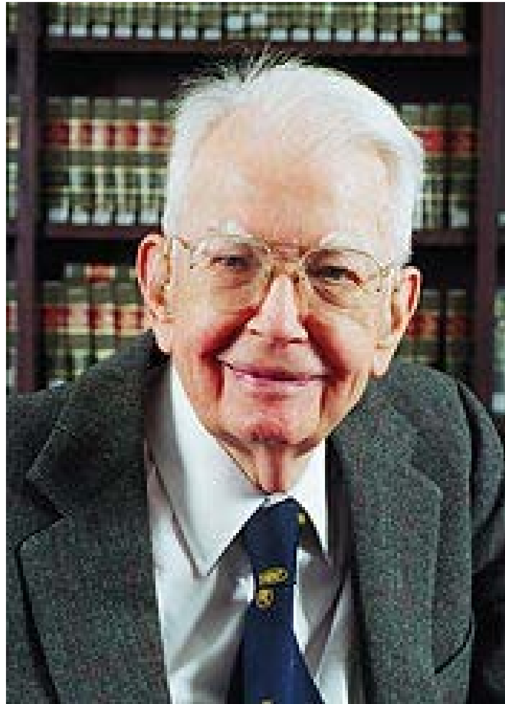
- Pecuniary externalities are genuine externalities
- They are however for the whole of society not relevant to welfare.
- They are typical for functioning markets
  - Ex.: You are selling a successful product, your rivals obtain a lower price
  - After entering the labour market, the wages of your rival sink.

Fixed Externalities

- Fixed externalities arise by taking up a production or consumption activity.
- They are independent of output quantity or level of use.
- If they are larger than social gain of the market, their trading and consumption should be forbidden.



Coase Theorem (1)



Ronald H. Coase (1910-2013)
University
of Chicago Law School

- The Coase Theorem describes the economic efficiency of an economic allocation or outcome in the presence of externalities.

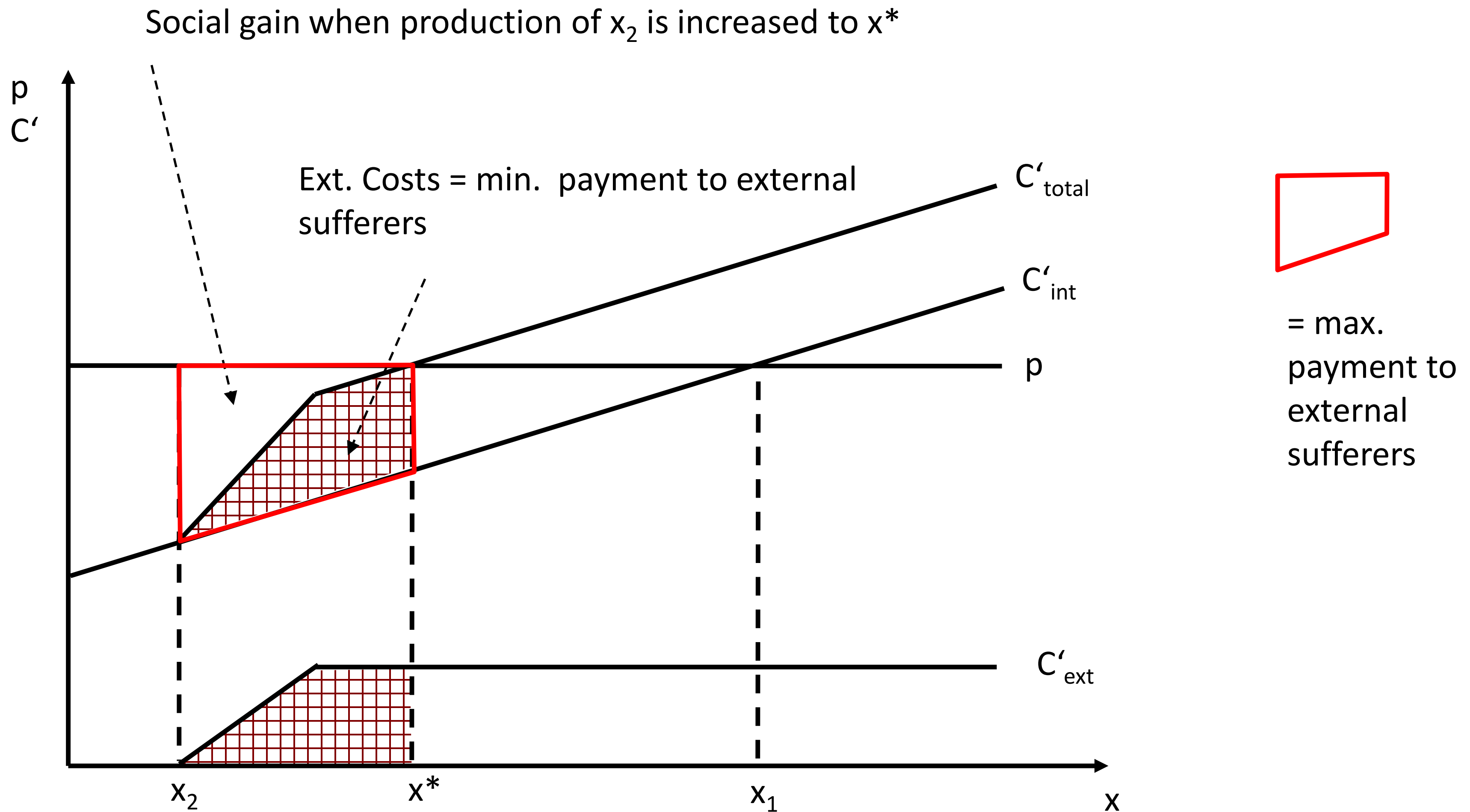
- Ownership rights must be clearly defined; there can be no transaction costs.

Coase Theorem (2)

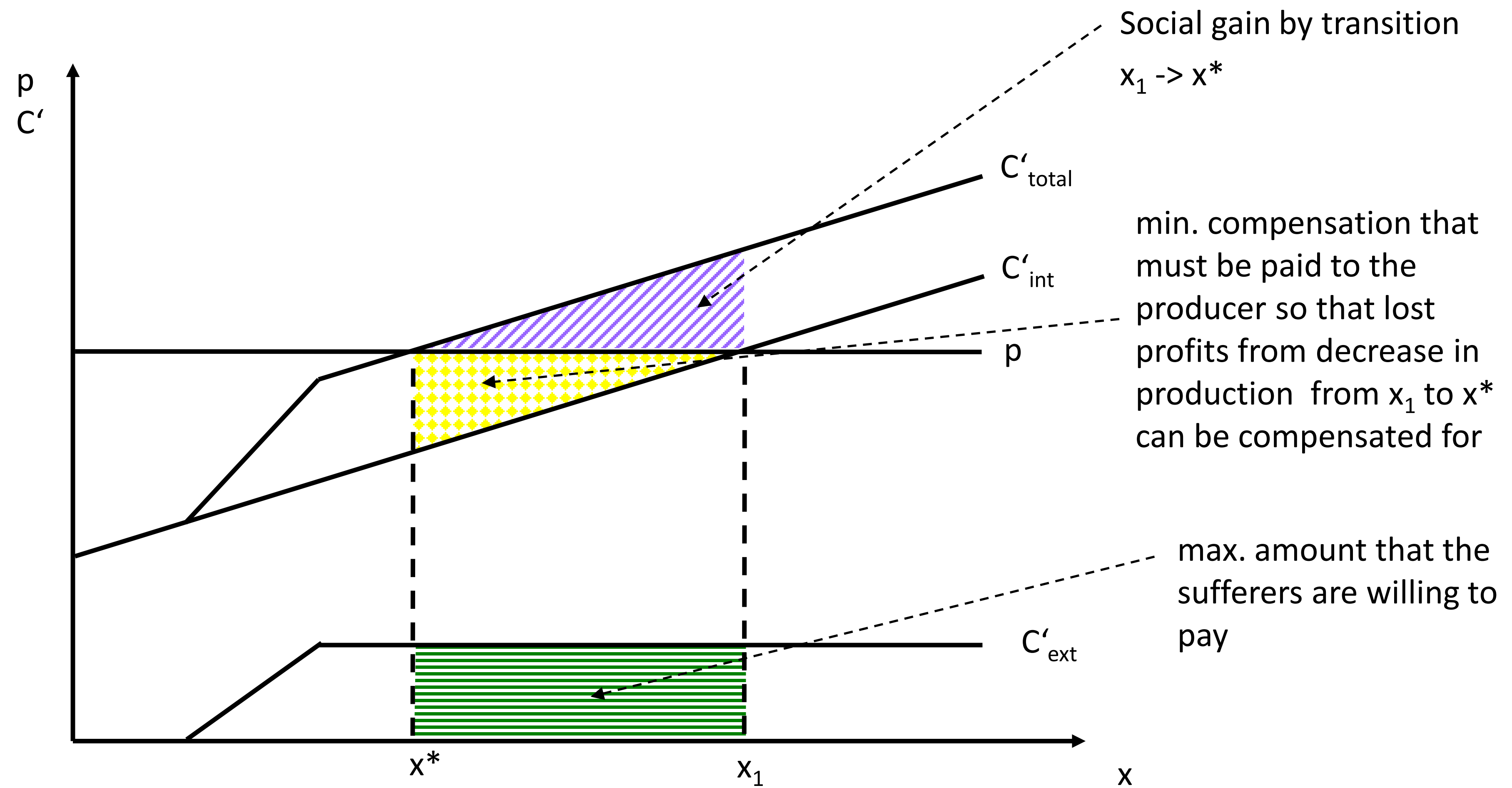
- Efficiency Thesis
  - Bilateral negotiations lead to an efficient internalizing of external effects with feasible ownership rights.

- Invariance Thesis
  - The resulting allocation is always the same – independent of who has ownership

Supposition: Emissions are not allowed; right of disposal is in the hands of external concerned parties.



Supposition: Emissions are allowed, Polluter has the right to dispose of them



Conclusion from the Coase-Theorem

- Enforcement of property rights often helps by itself to stimulate a market. The market participants achieve a pareto-efficient result even when there are external effects by voluntary negotiations.
- This approach is often better than introducing a Pigouvian tax
- Sometimes market platforms could be made available to reduce transaction costs.

Interfering Preferences

- When I am feeling bothered/disturbed by the knowledge or the actions of others although they are not directly hurting me, this is called interfering preferences.
  - Ex. Indignation about the irregular church attendance of a neighbour
- In a free society this must be tolerated as long as there is no other social consensus.