



The electricity market in Germany: RegTP or REGTP?

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July 2004

Overview

- **Institutional background**
 - The road to rTPA and REGTP
- **What happened?**
 - The margin squeeze
- **What can be expected next?**
 - Competition, concentration and unbundling
 - New entry
 - CO2 prices as a capacity element?
- **Concluding remarks**

Institutional background

- **Energy Act 1998**
 - 100% end-user eligibility
 - low degree of unbundling, while high degree of V.I.
 - negotiated third party access (nTPA)
- **Competition Law / Federal Cartel Office**
 - essential facilities doctrine (clause 19.4.4):
 - access to networks
 - non-discriminatory, and,
 - fair and reasonable charges
- **nTPA**
 - Association Agreements: VVI, VVII, VVII+
 - soon VVIII?

Institutional background (cont'd)

- **Cartel Office**
 - **Review of network access, April 2001**
 - highly critical
 - expresses concern about ex-post control
- **Ministry of Economics**
 - **Monitoringreport: Aug. 2003**
 - prepares way to regulated-TPA
 - nTPA in electricity “works”, but access charges very high
 - nTPA in gas disaster
- **Energy Act 2004:**
 - implementing the EU Directive 2003
 - rTPA as from July 2004 plus REGTP

Institutional background (cont'd)

- **Energy Act 2004**
- **Legal and management unbundling as minimally required by EU directive**
- **Regulated-TPA**
 - **ex-ante approval of the *method* to calculate charges (thus control of level is ex post)**
 - **justified by existence of 900 network operators**
 - **following cost principles as in VVII+**
 - **basically RoR regulation (6.5%), but possibility for incentive regulation left open**

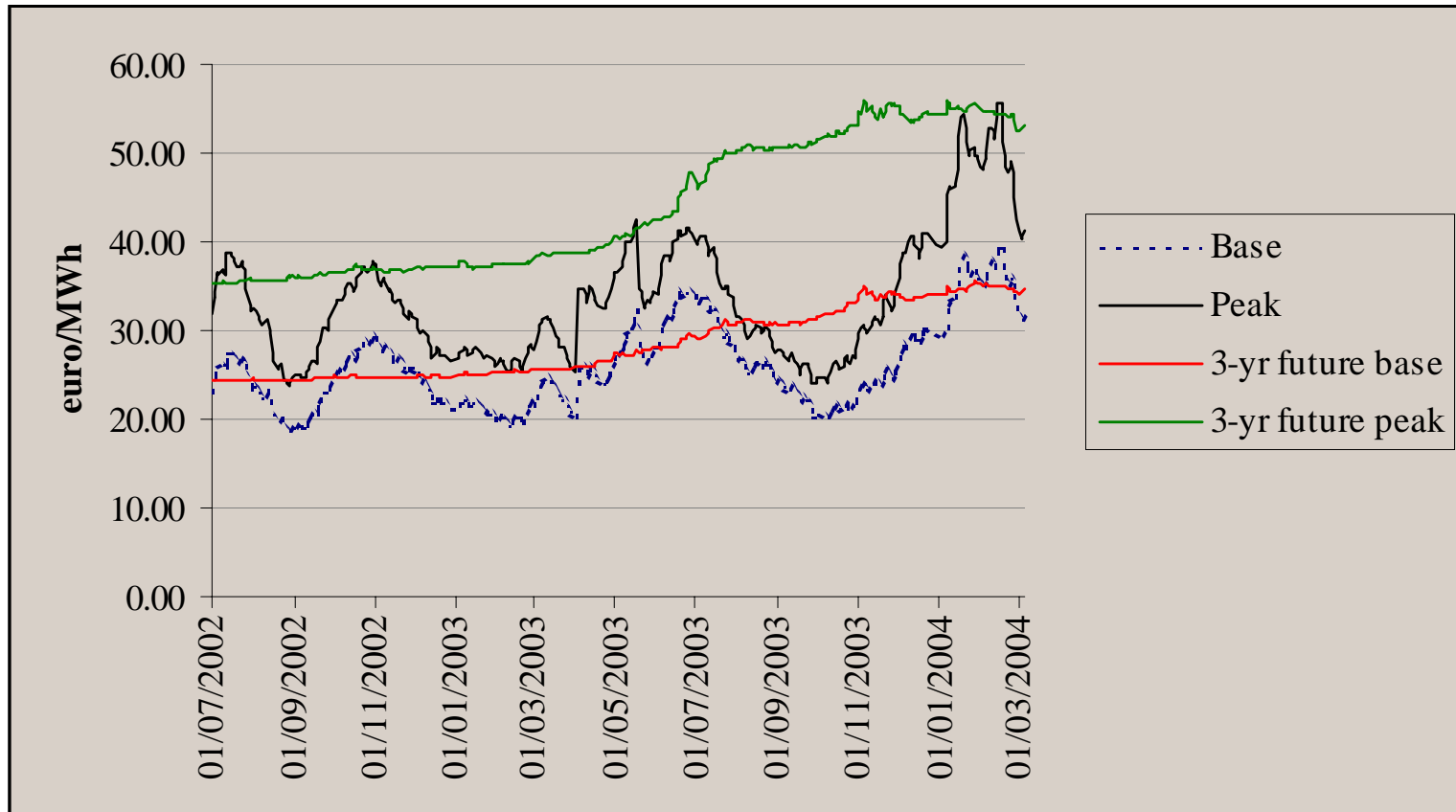
What happened?

- **VVI**
 - very bad
- **VVII**
 - structure of network access (charges) good,
 - level left to network owners
- **VVII+**
 - following the 2001-Review of Cartel Office
 - self-regulation of level of network charges
 - allows comparison of network charges

What happened? - The margin squeeze

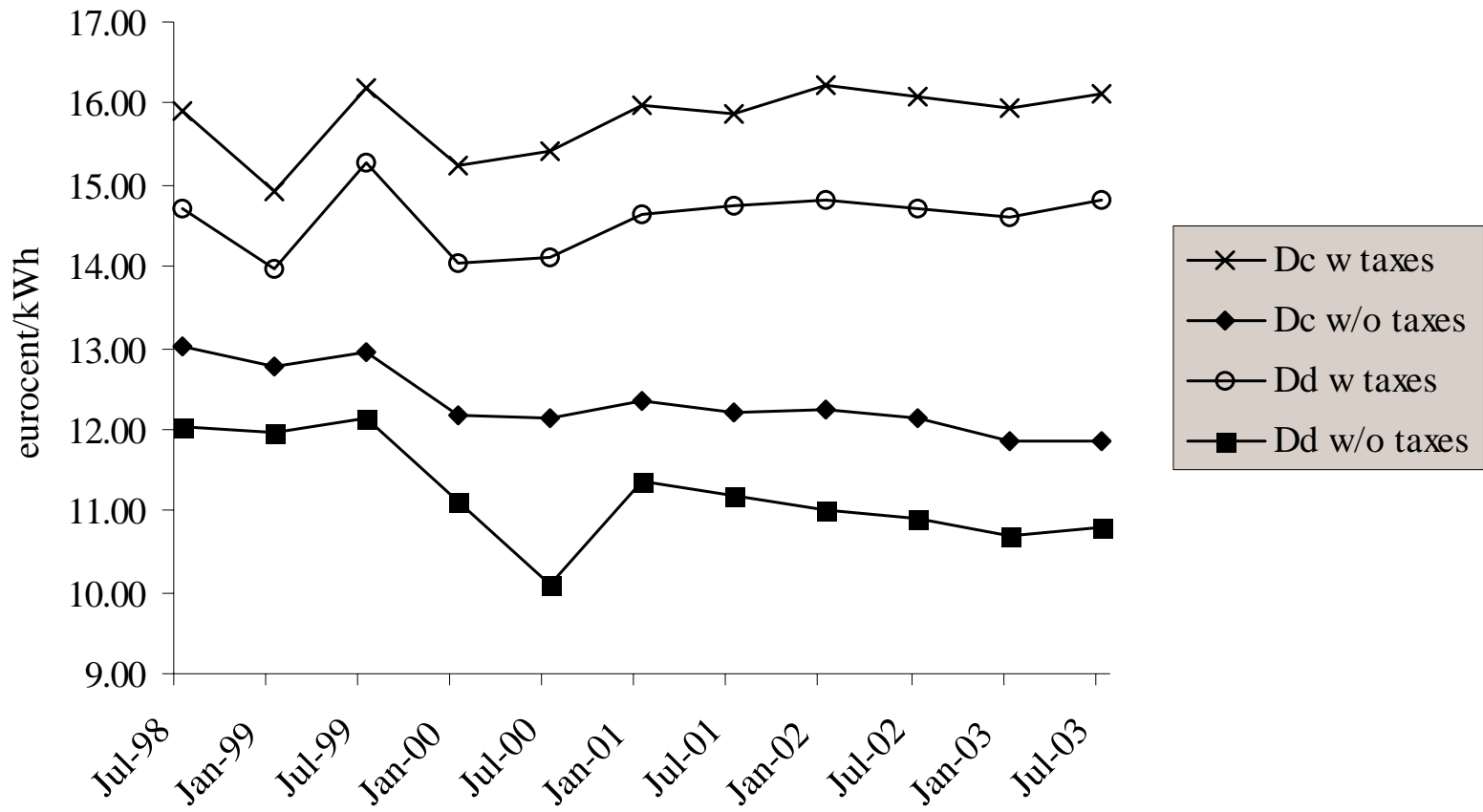
- **Combination of**
 - **vertically integrated firms**
 - i.e. network and competitive business
 - **unregulated network charges**
- **leads to margin squeeze of competitive businesses**
 - **Violation of level playing field**
 - **Low competitive activity**
 - **Low entry activity**
 - **bad for investment**
 - **bad for security of supply**

What happened? - wholesale prices (EEX)



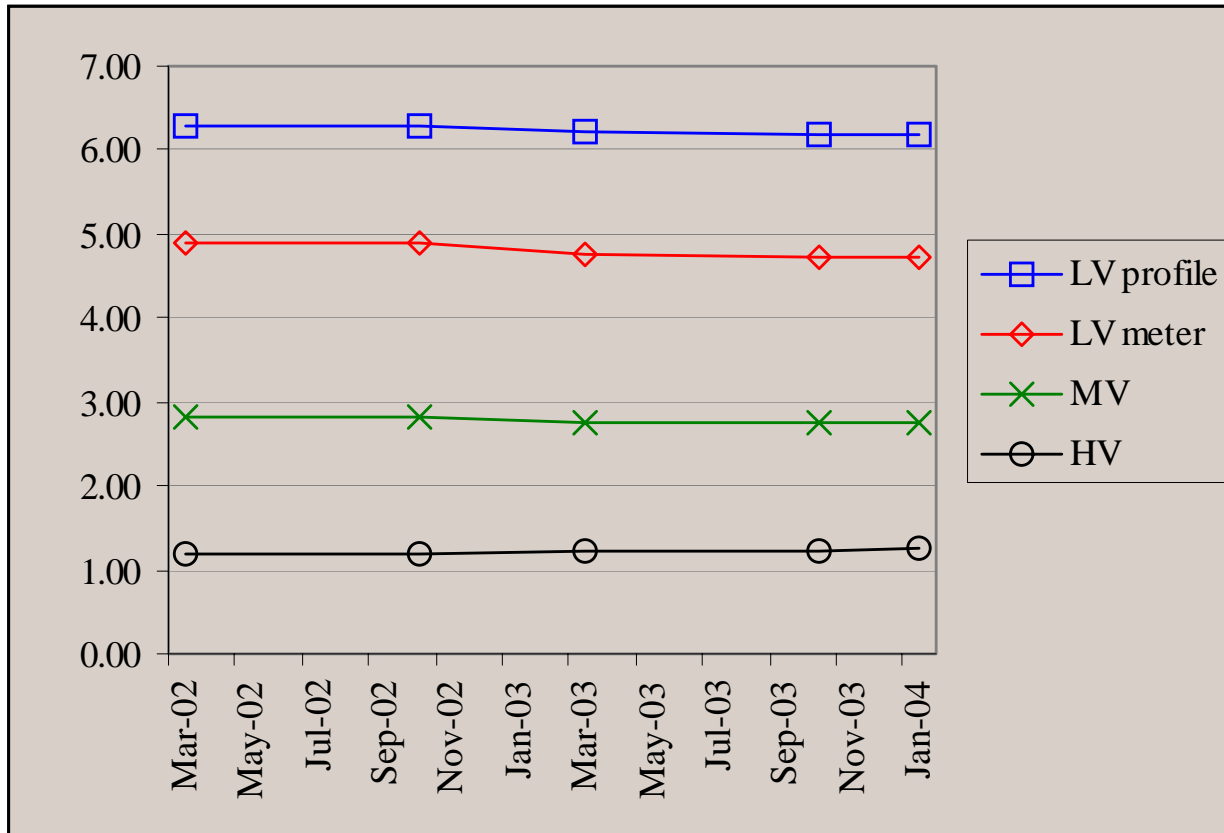
Source: EEX

What happened? - End-user prices



Source: Eurostat

What happened? - Network charges



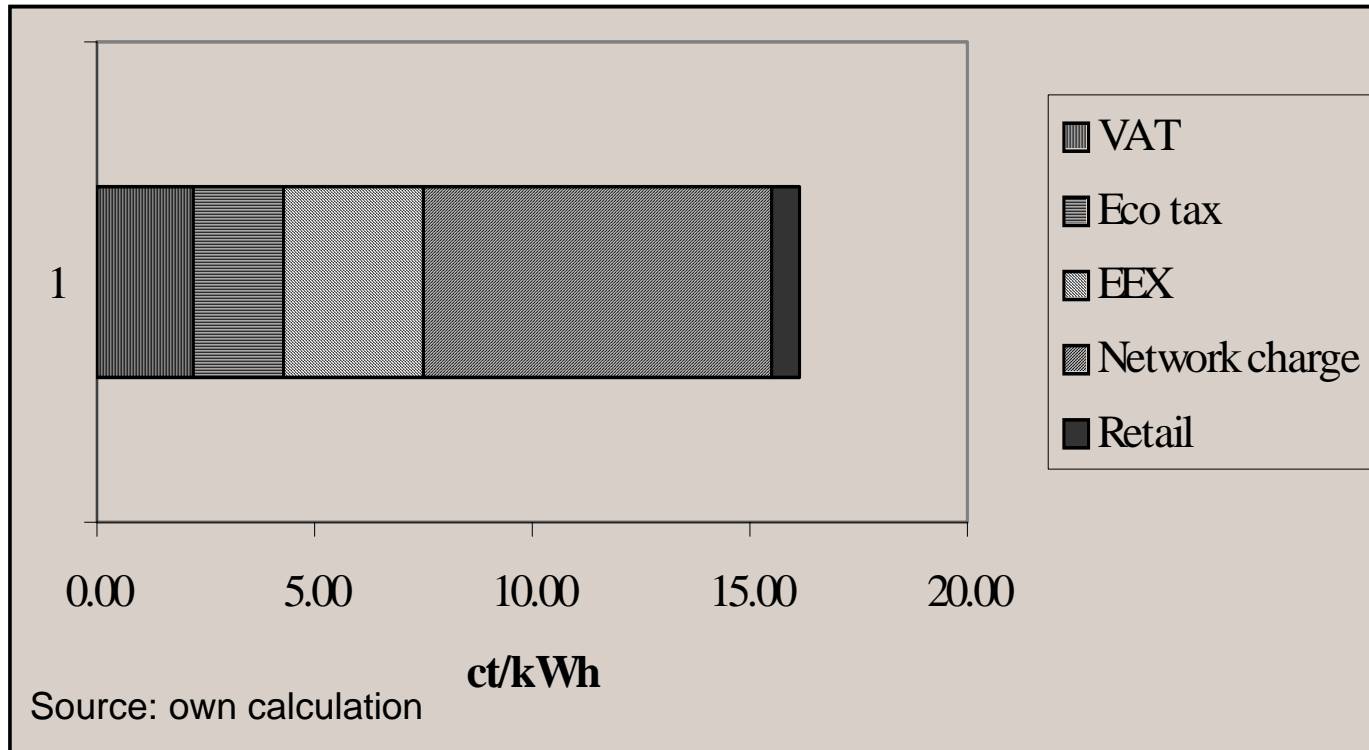
Averaged for different consumer profiles according to VDN. Post-VVII+

Source: VDN, various years.

What happened? - Network charges

- **Some observations:**
 - **esp. LV very high**
 - **slightly decreasing LV, slightly increasing HV**
 - **large variation among network operators**
 - **spread smaller since VVII+**
 - **high prices go down, but low prices go up slightly (Growitsch/Wein, 2004)**
 - **LV networks owned by big four charged lower prices than independent networks**
 - **consistent with theory of regulatory threat**

What happened? - The margin squeeze



- Mueller/Wienken (2003) calculate for Autumn 2002, that roughly 40% of dom. cust's have lower than required minimal margin (i.e. sum of wholesale and retail).**

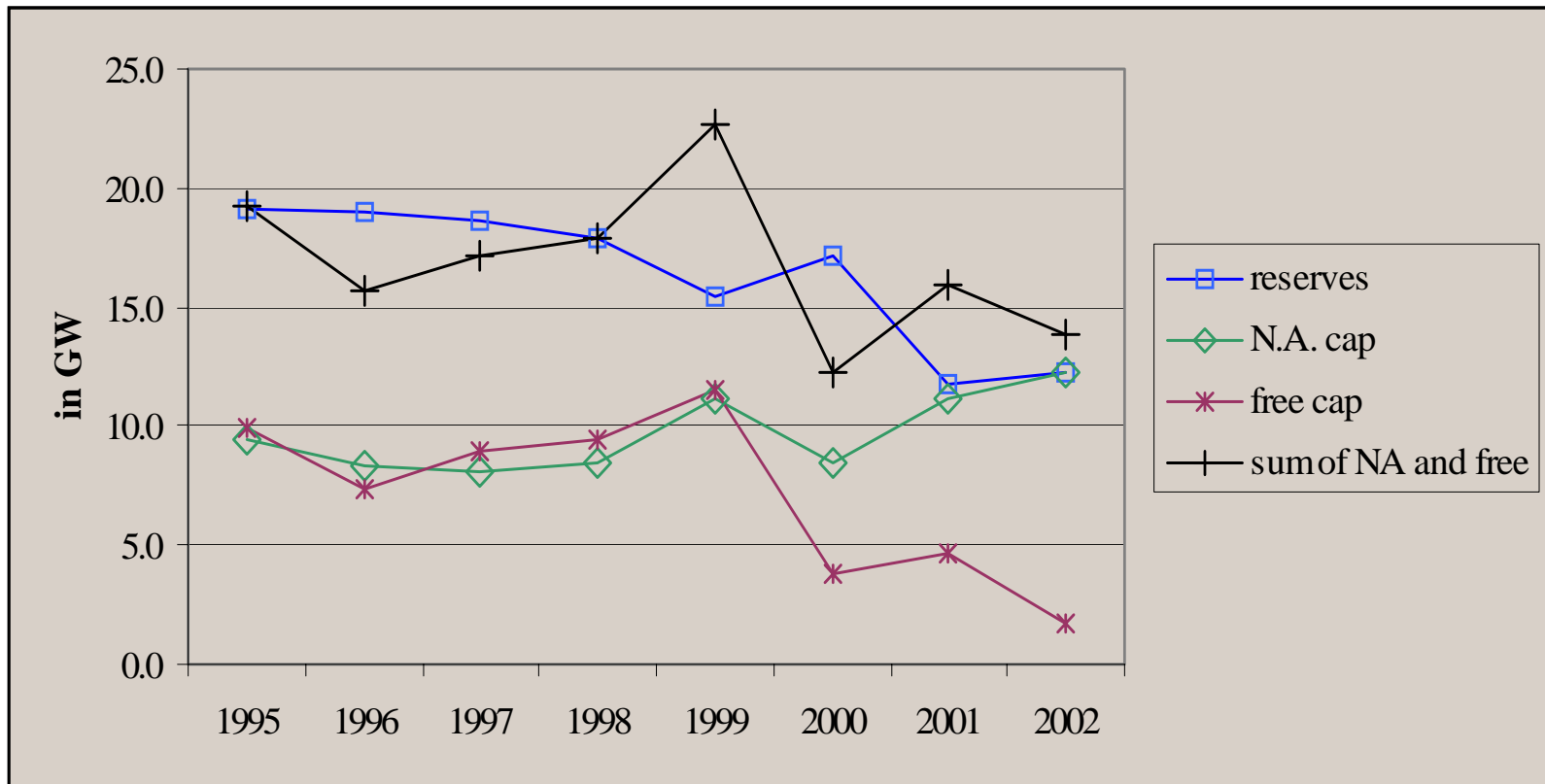
What happened? - The margin squeeze

- **Observation:**
 - margins in wholesale and retail were very low,
 - then retail margin restored somewhat (as end-user prices went up a bit and wholesale price stayed low),
 - and meanwhile wholesale price goes up at expense of retail margin.
- **New entry in generation almost none (except wind)**
- **Retail: Yello struggles; others (riva ares) gone**
 - cum. switching rate 2003: 4.3% of households

What's next? rTPA and REGTP

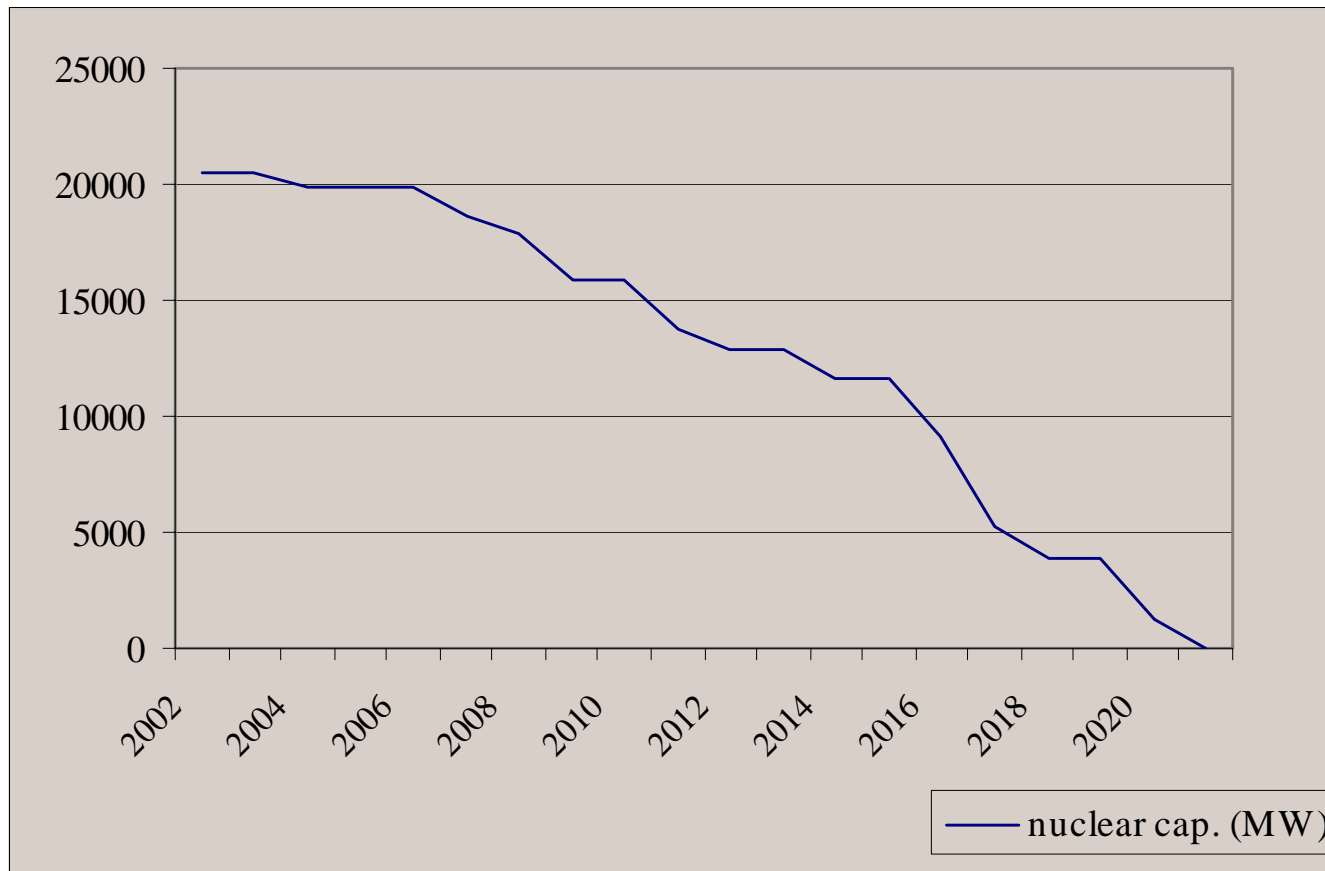
- **REGTP**
 - more than just a formality? Probably yes
- **rTPA**
 - ex-post control of ex-ante method
 - no regulatory gap (by mechanism)
 - hence typically cost-based regulation
- **To be expected:**
 - network charges should go down
 - competitive margins should increase
 - V.I. will become a problem
 - new entry?

Generation capacity and reserves



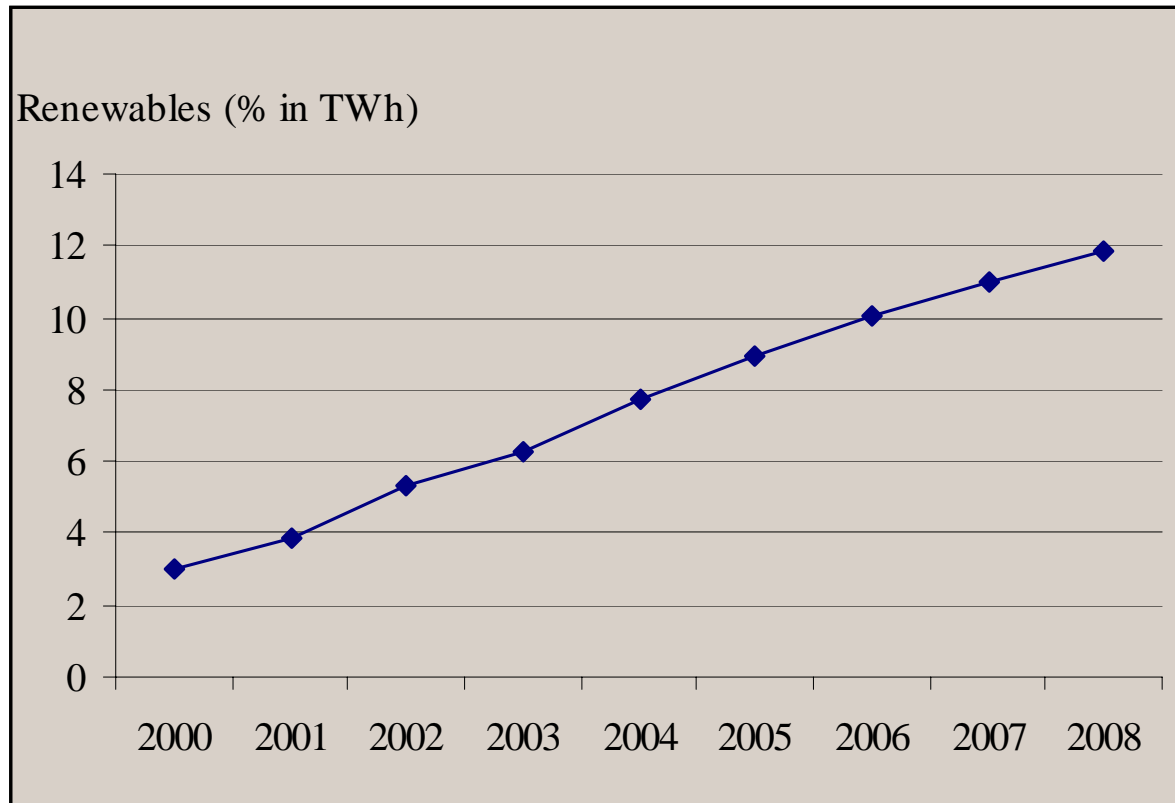
Source: Brunekreeft/Tweleemann, forthcoming

Nuclear phase-out



Source: Pfaffenberger & Hille, 2003.

Renewables

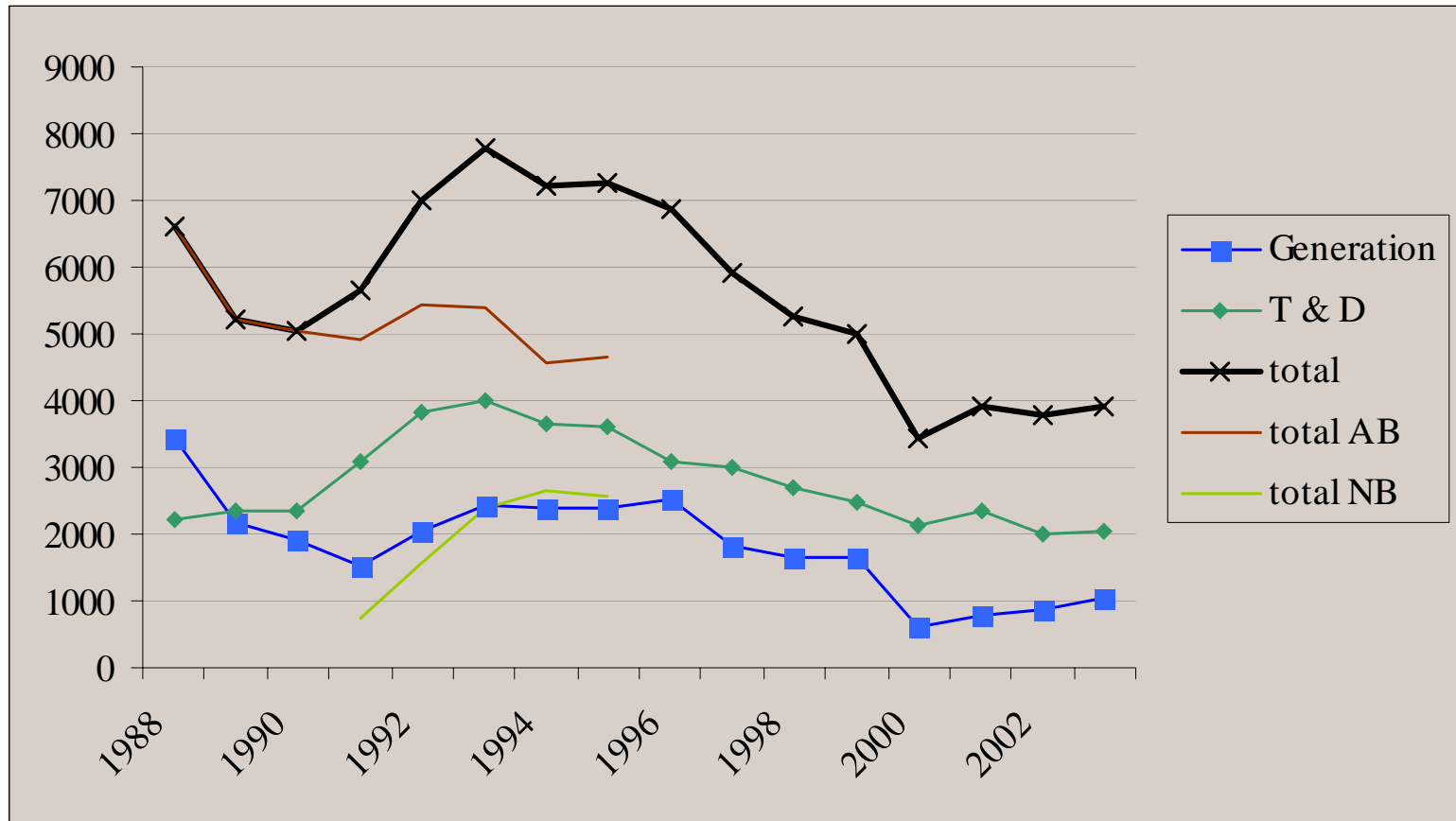


Source: Brunekreeft/Tweleemann, forthcoming

Generation capacity

- **Still sufficient capacity,**
- **.. but decreasing**
 - **security of supply is becoming an issue**
 - **lower excess capacity**
 - **reduction in competitive pressure**
 - **new entry**
- **What happens with nuclear?**
 - **Highly uncertain**
- **New renewables?**

Investment



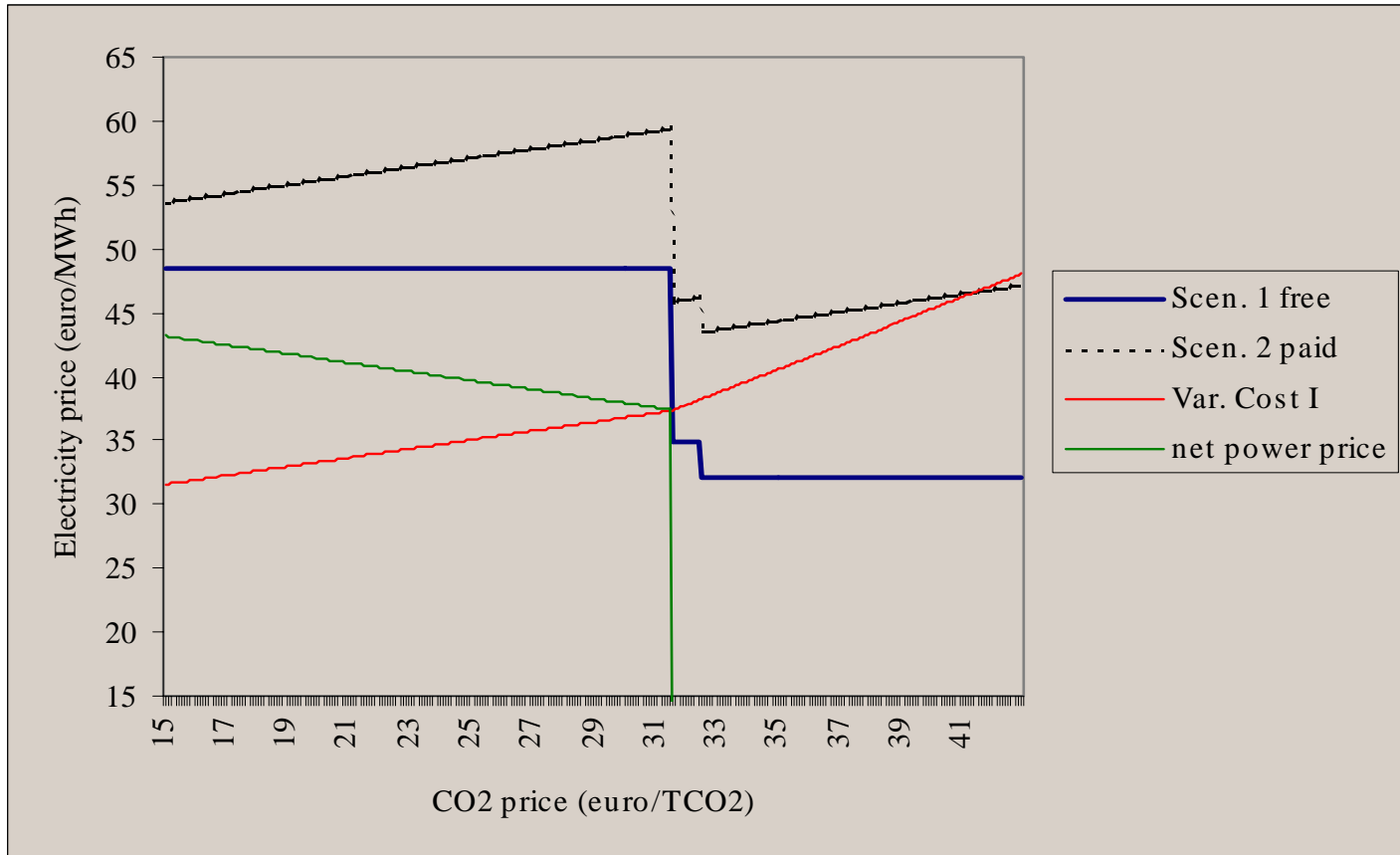
Source: Brunekreeft/Tweleemann, forthcoming

In million euro

ETS NAP

- **German National Allocation Plan**
- **Free allocation of CO2 rights**
 - **incumbents & new entrants**
 - **old: historic emission**
 - **new: benchmarking with upper and lower limit**
- **free CO2 rights increase variable costs for all,**
- **but lower capital costs, and thus entry price**
- **Thus, CO2 price mimics capacity element for new plant**

ETS and new gas



Source: Brunekreeft/Tweleemann, forthcoming

Concluding remarks

- **nTPA did not work**
- **rTPA likely**
 - **to improve competition**
 - **and to reduce prices**
 - **however, now high G-concentration and vertical integration will become problem**
- **Regulation improves opportunities for necessary new investment**
- **ETS promotes competition (threat of new entry) and security of supply**
- **Institutional uncertainty should be reduced!**