



Sustainability

New study reveals: Objectives of mandatory deposits in Germany not reached

APEAL, Ball Packaging Europe, a major metal drinks packaging manufacturer in Europe and SKB (Stichting Kringloop Blik), the Dutch Association promoting metal packaging recycling, jointly commissioned a study with Prognos, a well-known German/Swiss consultant in strategic & environmental consultancy. The study assessed the environmental and macro-economic impact of the mandatory deposit on one-way drinks packaging in Germany.

The results of the study show:

- The prime objective of a stabilisation or (even) an increase of the overall market share of refillable drinks packaging has not been achieved.
- The mandatory deposit in Germany led to a reduction of purchasing power for the end consumer.
- The political objective of curbing litter has not been reached through the deposit.

The study ranks the deposit scheme as one of the most expensive measures for CO₂ reduction.

Another study commissioned by the AGVU to Roland Berger (June 2007) on the impact of the German deposit draws the following conclusions:

Compulsory deposits...

1. cost around three times as much per container as household based collection. Marginal cost of 22 cents/container for additional quantities.
2. diminishes the efficiency of household-based collection. Compulsory deposits mean that two collection systems must always operate in parallel.
3. alone are not the right tool with which to meet the requirements of the Packaging Ordinance. In Germany, disposable drinks packaging makes only a marginal contribution to the national recycling rate.
4. are not suitable as a tool to increase the use of reusable packaging.
5. do reduce litter caused by drinks packaging to some extent, but do not really help keep public spaces properly clean.

Regulatory background

Since 1 January 2003, a mandatory deposit on one-way drinks packaging has been implemented in Germany with amendments brought in 2005. Since 28 May 2005, a uniform deposit of 0,25 Euro per unit has been compulsory for beer, water and soft drinks sold in one-way glass, plastic or metal packaging (from 10cl to 3 litres). This enactment is based upon the implementation of the German Packaging Ordinance of 1991 which foresees mandatory (punitive) deposits on one-way drinks containers if the market share of refillable/re-usable containers was to sink below 72%.

The present study examines the question whether or not the main political objectives sought have been reached, by looking at the impact of mandatory deposits on:

- the market share of refillable drinks packaging (the objective was a stabilisation or increase);
- street litter and litter in public areas (the objective was a reduction of litter);
- the environmental impact related to drinks packaging.



Market effects

a) Significant reduction of the overall market share of refillable drinks packaging

In 2002, a year prior to the introduction of the deposit on one-way drinks packaging, refillable packaging had a market share of 58% of the German drinks packaging market. The implementation of the deposit system in 2003 led to a temporary rise of the refillable market to 65%, followed by a consistent decrease [-12% in only 3 years] to reach 53% in 2006. Only in the beer segment was there an increase of the refillable market but which could not compensate the -23% drop in the waters and -7% drop in soft drinks markets.

Hence, the prime objective of a stabilisation or (even) an increase of the overall market share of refillable drinks packaging has not been achieved.

b) Strong changes in the packaging mix

Introduction of compulsory deposits in 2003 triggered disruptions – some of them very pronounced – throughout the packaging market. Between 2002 and 2006, a surge of one-way plastic packaging (+12%) and a significant loss of market share for refillable glass (-10%) and one-way beverage cans (-7%) were observed, leading almost to the disappearance of metal cans in the domestic drinks market.

As a consequence, the mechanical engineering sector (producers of reverse vending equipment) benefited most from the regulatory measure whilst in the packaging market, beverage can and glass bottle producers were negatively affected.

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Economic effects

The introduction of mandatory deposits resulted in direct monetary effects amounting to 640 million Euros per year due to setting-up and operating the new return system (amortisation of investment in reverse vending machines, setting up clearing centres, staff expenditures). To those costs, an estimated 340 million Euros of upstream & downstream effects has to be added. All in all, the total economic effects amount to about 1 billion Euros. Since those costs will be finally passed on to the end consumer, the implementation of the mandatory deposit in Germany led to a reduction of purchasing power for the end consumer.

Impact on street litter and litter in public areas

Contrary to popular belief that the introduction of deposits on one-way drinks cans would lead to a reduction of street litter cost wise & quantity wise, the study comes to the conclusion that this is not the case. To illustrate that, the waste quantities alongside motorways, highways & motorway stations in the Land of Nordrhein-Westphalen even increased between 2003 and 2005 and the associated cleaning costs are quite stable. In spite of the mandatory deposit, the city of Frankfurt has, in comparison with other European cities, the highest amount of beverage packaging in litter. Hence, the political objective of curbing litter has not been reached through the deposit system.

Reduction in terms of Environmental impacts

Since refillable drinks packaging have been assessed with a lower environmental impact compared to one-way drinks packaging (UBA studies), a logical consequence of the introduction of deposits would be a substantial improvement in

terms of environmental impact at national level due to the potential rise of the market share of refillable drinks packaging.

The significance of CO₂ emissions related to beverage packaging is rather low (0.4% of the total CO₂ emissions for Germany). In terms of impact on CO₂ emissions, the effect of the deposit is a minute 0.05% reduction of the national CO₂ balance between 2002 & 2006, which represents 0.5 million tonnes of CO₂. In terms of cost-efficiency, this measure represents a specific abatement cost of 1300 Euros per tonne. This ranks the deposit scheme as one of the most expensive measures for CO₂ reduction (average abatement cost recommended by UBA being 70 Euros/tonne).

Conclusion

The Germany case demonstrates the uselessness of the introduction of the deposit system : huge costs for retail, reduction of consumer purchasing power, as well as a disproportionate burden for the national economy, with no, or nearly no environmental improvement.



CONTACT

Jean-Pierre Taverne
Environmental and Technical Affairs Manager
 APEAL - Avenue Louise, 89
 BE-1050 Brussels
 Tel +32/2 535 72 05
 Fax +32/2 537 86 49
 Email j.p.taverne@apeal.be
www.apeal.org