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THE RATIO OF EPR COMPLIANCE FEES ON SALES REVENUES OF EEE IN ITALY

A CIRCULAR ECONOMY PERSPECTIVE

Presentation outline



- Definitions
- Aim of the research
- Data description
- Data transformation
- Results interpretation
- Conclusions

Definitions



- **WEEE (waste from Electric and Electronic Equipment)**

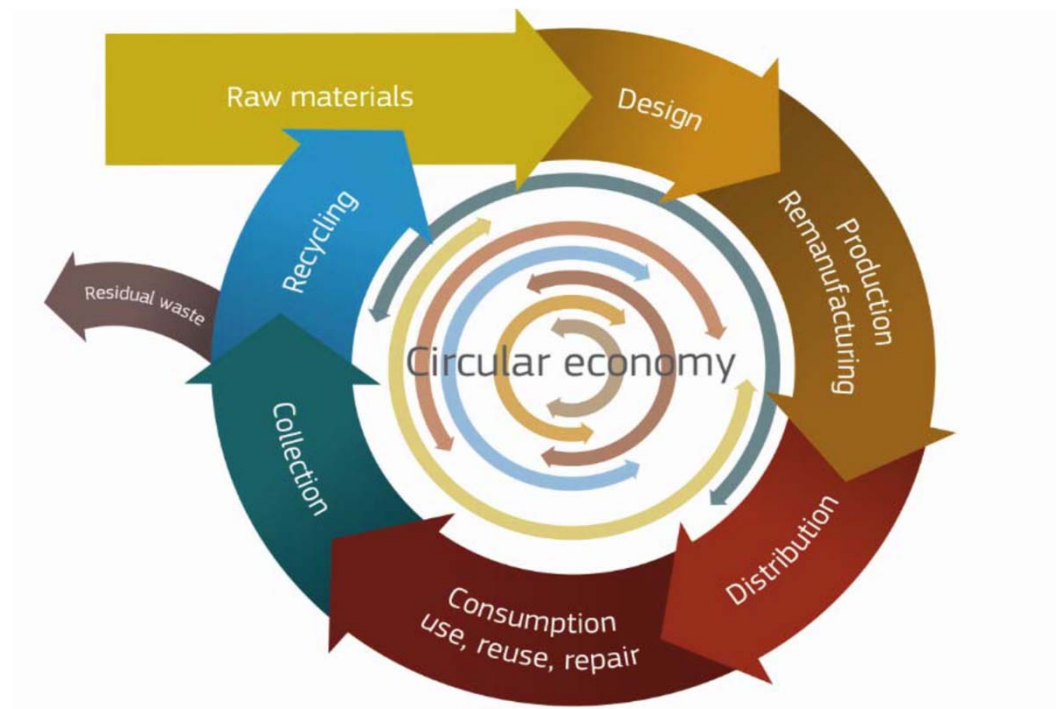
- 1) wide variety of waste products 2) mixtures of materials 3) increasing quantities (42 million metric tonnes in 2014, UNU 2015).

- **EPR (Extended Producer Responsibility)**

a policy approach in which producers accept significant responsibility – financial and/or physical – for the treatment or disposal of post-consumer products (OECD, 2001)

Definitions

- CIRCULAR ECONOMY systems keep the added value in products for as long as possible and eliminate waste.



Definition



- The Circular Economy Package reports that “EPR schemes form an essential part of efficient waste management” and
- “they should contribute to the **incorporation of end-of-life costs into product prices** and
- **provide incentives** for producers **to take better into account recyclability and reusability** when designing their products” (EC, 2015)

Aim of the research



- **Quantify** the fees paid by producers in relative terms i.e. in terms of sales revenue. WEEE technical results are linked to the economic results.
- **Analyze** if compliance fees on WEEE are sufficient to stimulate a proactive behaviour towards the Circular Economy

Data description

Table 1 Value of EEE put on the Italian market (years 2009-2013)

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|-----------------------------------|------------|------------|------------|------------|------------|
| National production of EEE | 25,907,889 | 27,662,916 | 27,120,550 | 25,750,944 | 24,840,145 |
| +import – export | 471,732 | 675,840 | 524,840 | 679,286 | 652,044 |
| Value of EEE | 26,379,621 | 28,338,756 | 27,645,390 | 26,430,230 | 25,492,189 |

Source: ISTAT (thousand EURO)

Data description

Table 2 Ratio of B2B EEE POM on total EEE POM in Italy (years 2009-2013)

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|--------------------------|---------|-----------|---------|---------|---------|
| Total tonnes POM* | 973,713 | 1,117,406 | 993,997 | 892,910 | 846,720 |
| B2C tonnes POM** | 935,881 | 956,786 | 894,782 | 781,623 | 760,320 |
| B2B tonnes POM | 37,832 | 160,620 | 99,215 | 111,287 | 86,400 |
| % of B2B on total | 3.89% | 14.37% | 9.98% | 12.46% | 10.20% |

Source: *Eurostat; **CdC RAEE

Data description

Table 3 Technical performance of the WEEE regime in Italy for households (years 2009-2013)

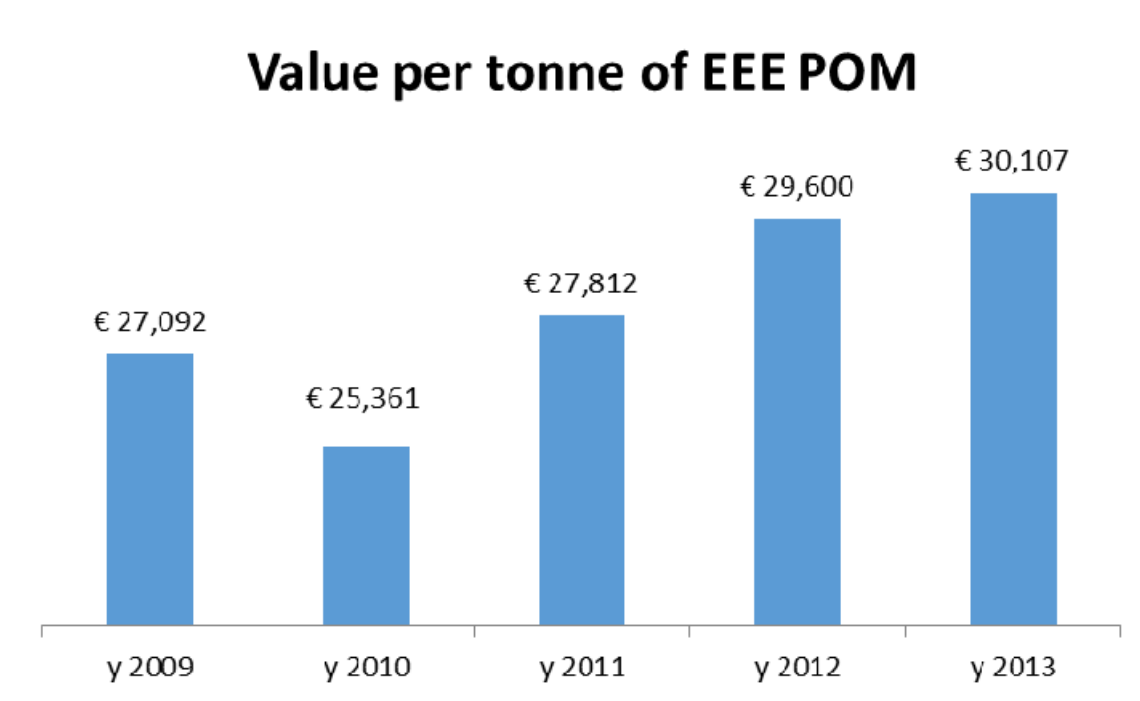
| Year | 2009 | 2010 | 2011 | 2012 | 2013 |
|--|--------|--------|--------|--------|--------|
| B2C EEE POM Kg/inh # | 15.51 | 15.78 | 15.07 | 13.10 | 12.51 |
| B2C WEEE collected kg/inh[^] | 3.20 | 4.07 | 4.29 | 4.00 | 3.80 |
| Collection rate | 20.63% | 25.64% | 29.07% | 30.44% | 29.72% |

Source: Source: [^]CdCRAEE data or its elaboration

[#]CdCRAEE data for quantities and ISTAT data for the population

Data transformation

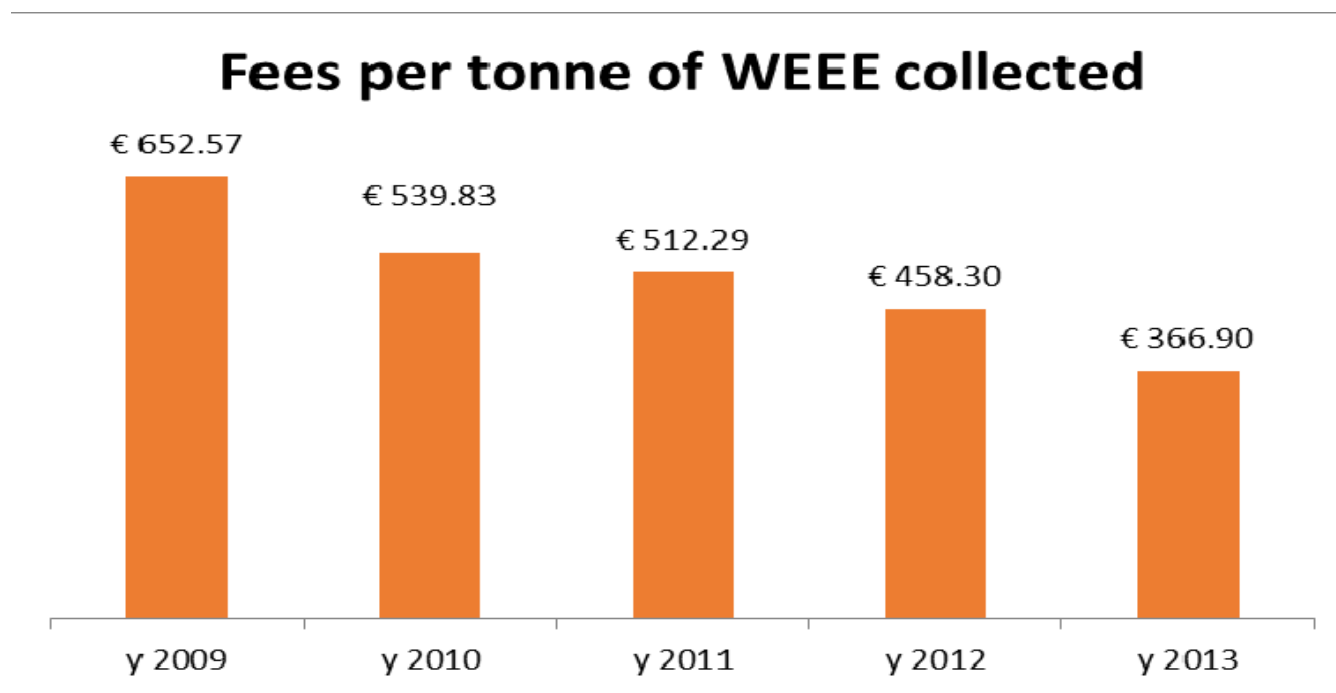
Figure 1: Value of B2C EEE per tonne put on market (years 2009-2013)



Source: ISTAT , Eurostat and CDC RAEE

Data transformation

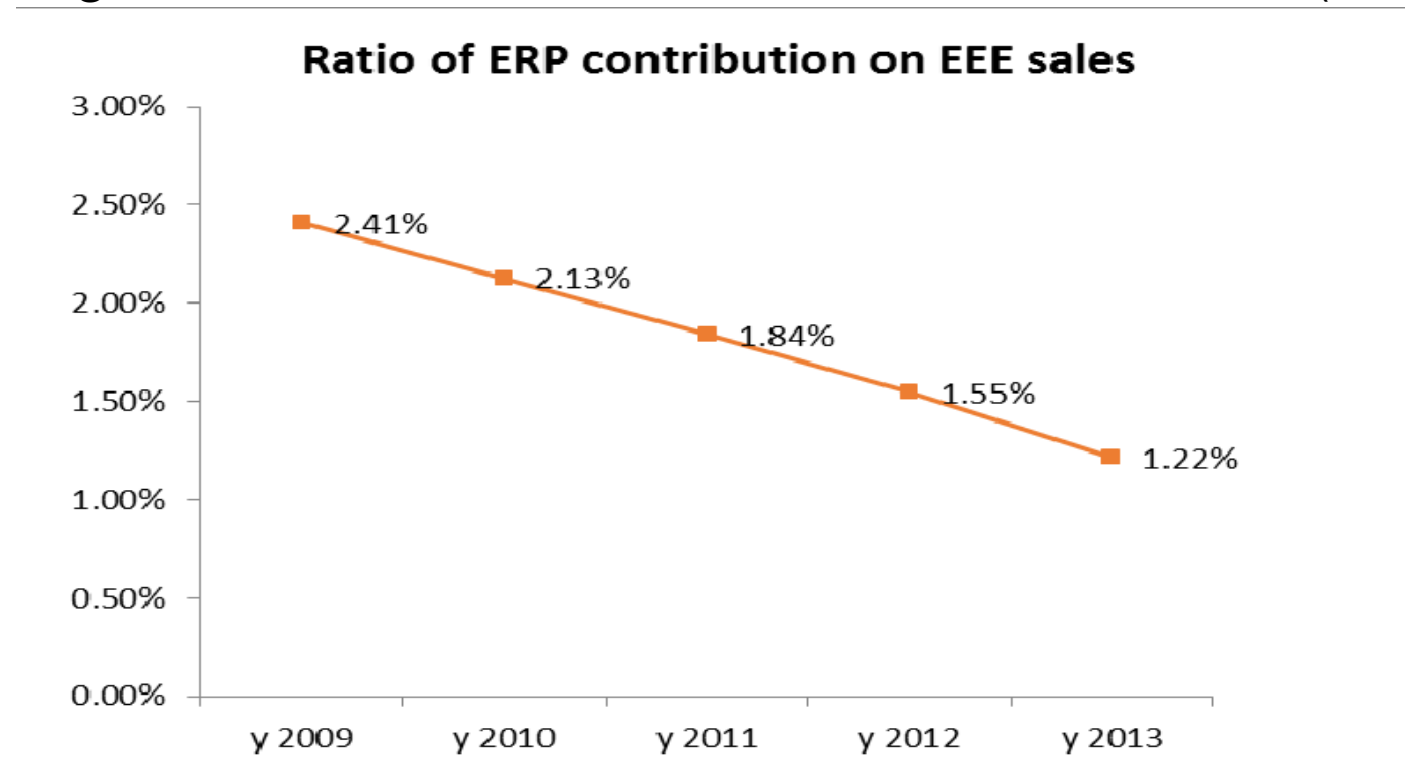
Figure 2: Fees per tonne of B2C WEEE collected (years 2009-2013)



Source: Favot, Massarutto, Veit - Waste Management Journal, 2016

Results

Figure 3: Ratio of EPR contribution on EEE sales revenues (B2C sector)



Source: computations based on previous data

Conclusions



These ratios (2.41 %-1.22%) are not negligible especially for those companies that have limited profit margins.

EPR compliance fees should not be flat fees but modulated on the real end-of-life costs to take account of their reusability and recyclability.

Modulated fees can provide incentives for producers to take better into account recyclability and reusability in the design phase.

Thank you for your attention



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