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The impact of European Regional Development Fund on separate waste collection: Evidence from Italian regions



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ABSTRACT

We analyze the impact of Regulation (EC) No 1080/2006 on separate collection rate of Italian regions. We exploit longitudinal data for 20 NUTS-2 Italian regions and eighteen years (from 1996 to 2013). We identify regions which are exposed to "Convergence" objective as the treatment group and regions which are not exposed to this objective as the control group and use a Difference in differences estimation. The estimates suggest that the Regulation (EC) No 1080/2006 has not influenced the convergence process among the Italian regions. The main policy implications are discussed.

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1. Introduction

The aim of EU Regional policy of ensuring a balanced development of the European territory, and the search for a real equality of opportunity between less developed region falling into Convergence Objective and the richer ones into Regional Competitiveness and Employment Objective, has led Europe to enable, over time, specific financial instruments that could help to reduce the structural differences between EU identifying in Environment one of the main prerogatives at the level of Convergence Regions for the programming period of 2007-2013. Thus far, Structural policies have been designed on the main assumptions that convergence among less favored regions lead cohesion and indentify in the European Regional Development Fund (ERDF) Regulation¹ the instrument to reducing the gap in know how and infrastructure with the richer ones. In fact, territorial diagnosis have singled out in such failures one of the main obstacles to the adjustment of convergence and in regional environment projects, more precisely, Convergence and cohesion actions must respect environmental legislation² and EU waste policy is based properly on the promotion of prevention, re-use and recycling of waste. 'Separate collection' is then defined in Article 3(1) of the European Waste Framework Directive 75/442/EEC³ (WFD hereafter) as a measure where a waste stream is kept separate from waste of a different type or nature, so as to facilitate a specific treatment. There are different categories of separate collection and the addressees (Member State) are encouraged by the WFD to make an even more large use to facilitate or improve recovery (EEA, 2009). This provision applies to all waste steams but the precondition is that the separate collection must be "technically and environmentally practicable, or that the separate collection may be implemented through a system technically developed and proven to function in practice". The 2008 waste directive moreover includes also the two

in separate collection projects, the careless indicator for the need of achievement the levels of convergence resulting.

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¹ Regulation (EC) No 1080/2006 of the European Parliament and of the Council of 5 July 2006 on the European Regional Development Fund and repealing Regulation (EC) No 1783/1999

² The importance of environmental integration is also reaffirmed in the 7th Environment Action Programme to 2020. It emphasizes that environmental integration in all relevant policy areas is essential to meet environmental targets.

³ Council Directive 75/442/EEC of 15 July 1975 on waste (OJL 194, 25.7.1975, p. 39), amended in 1991 by Council Directive 91/156/EEC of 18 March 1991 (OJL 78, 26.3.1991, p. 32) and subsequently codified by Directive 2006/12/EC of the European Parliament and of the Council of 5 April 2006 (OJL 114, 27.4.2006, p. 9), which was repealed by Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 (OJL 312, 22.11.2008, p. 3).

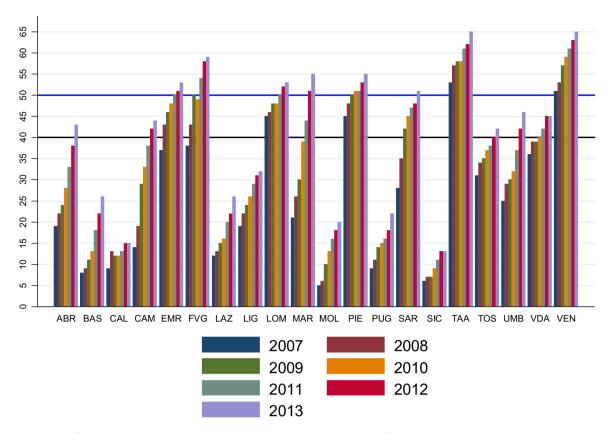


Fig. 1. Separate collection of municipal waste in Italian Regions (2005–2013) and European targets of separate collection related to municipal waste generation. (For interpretation of the references to color in this figure legend, the reader is referred to the web version of this article.)
Legend: Northern Italy regions: Lombardia (LOM), Liguria (LIG), Piemonte (PIE), Valle d'Aosta (VDA), Friuli-Venezia Giulia (FVG), Emilia-Romagna (EMR), Trentino-Alto Adige (TAA) and Veneto (VEN); Central Italy regions: Lazio (LAZ), Marche (MAR), Toscana (TOS), Umbria (UMB); Southern Italy regions: Abruzzo (ABR), Basilicata (BAS), Calabria (CAL), Campania (CAM), Molise (MOL), Puglia (PUG), Sicilia (SIC) and Sardegna (SAR).
Note: The black (blue) line indicates the target value of 2013 (2020) equal to 40% (50%).
Source: our elaboration on ISPRA data.

new recycling and recovery targets to be achieved by 2020: 50% preparing for re-use and recycling of certain waste materials from households and other origins similar to households, and 70% preparing for re-use, recycling and other recovery of construction and demolition waste.⁴

EU Regional Policy shows that the main aim of Italian waste policy, in accordance with international objectives, is the achievement of a sustainable system based on the EU integrated waste strategy (APAT, 2007) and Italy may be categorized under two waste generation and management "groupings", according to its regional strategy of modernizing or building waste facilities. The first group comprises regions with high levels of waste management and relatively high levels of separate collection falling back into the Regional competitiveness and employment Objective. The second group includes region with low recovery rates, poor infrastructures of waste management and relatively low dependence on separate collection falling back into Convergence Objective.⁵

Thus Italy is lagging in the path of separate collection disposal having affected from this divided fairly pronounced (with some exceptions) among the regions of the North, which are seen management models similar to those of the virtuous North Europe Regions, and the regions of the South (Convergence Regions), that delay in "climb" the hierarchy of waste management. Even if separate collection rates of municipal waste (MSW hereafter) increased in all the Italian Regions for all waste fractions and Italy seems to be on the right path to reach the EU recycling target of 50% for MSW by 2020 it continue to suffer from huge cross-regional differences: in 2013 the EU separate collection target (up to 40%) was achieved only by 7 out of 20 Regions (EEA, 2013), so that Italy as a whole not achieved the target (see Fig. 1).

Fig. 1 shows the rate of MSW in Italian Regions from 2005 to 2013 and the European separate collection targets. The higher separate collection rates have been achieved by some regions of the north (Veneto, Trentino Alto Adige and Piemonte) in 2013; in the south, only Sardegna is characterized by a very positive performance, thanks to the spread of separate collection infrastructure systems.

With the European Regional Development Fund Regulation (EC) No 1080/2006 (ERDF hereafter) the Union invests in thousands of projects in Italy⁶ and across all of Europe's regions to allow the Convergence regions affected to catch up with the EU's more

⁴ EC (2015a,b): "Directive 2008/98/EC on waste (Waste Framework Directive) http://ec.europa.eu/environment/waste/framework/ (accessed October 2015).

⁵ There are 11 outcome indicators and targets related to certain collective public services that Convergence Regions in Italy committed to improve. These services are education, child care and assistance to the elderly, water supply and waste management, all areas in which Convergence regions lag behind the rest of the Regions and which are considered crucial for increasing the effectiveness of cohesion policy.

⁶ EC (2015a,b): Cohesion Policy in Italy http://ec.europa.eu/regional_policy/sources/docgener/informat/country2009/it_en.pdf (accessed February 2015).

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