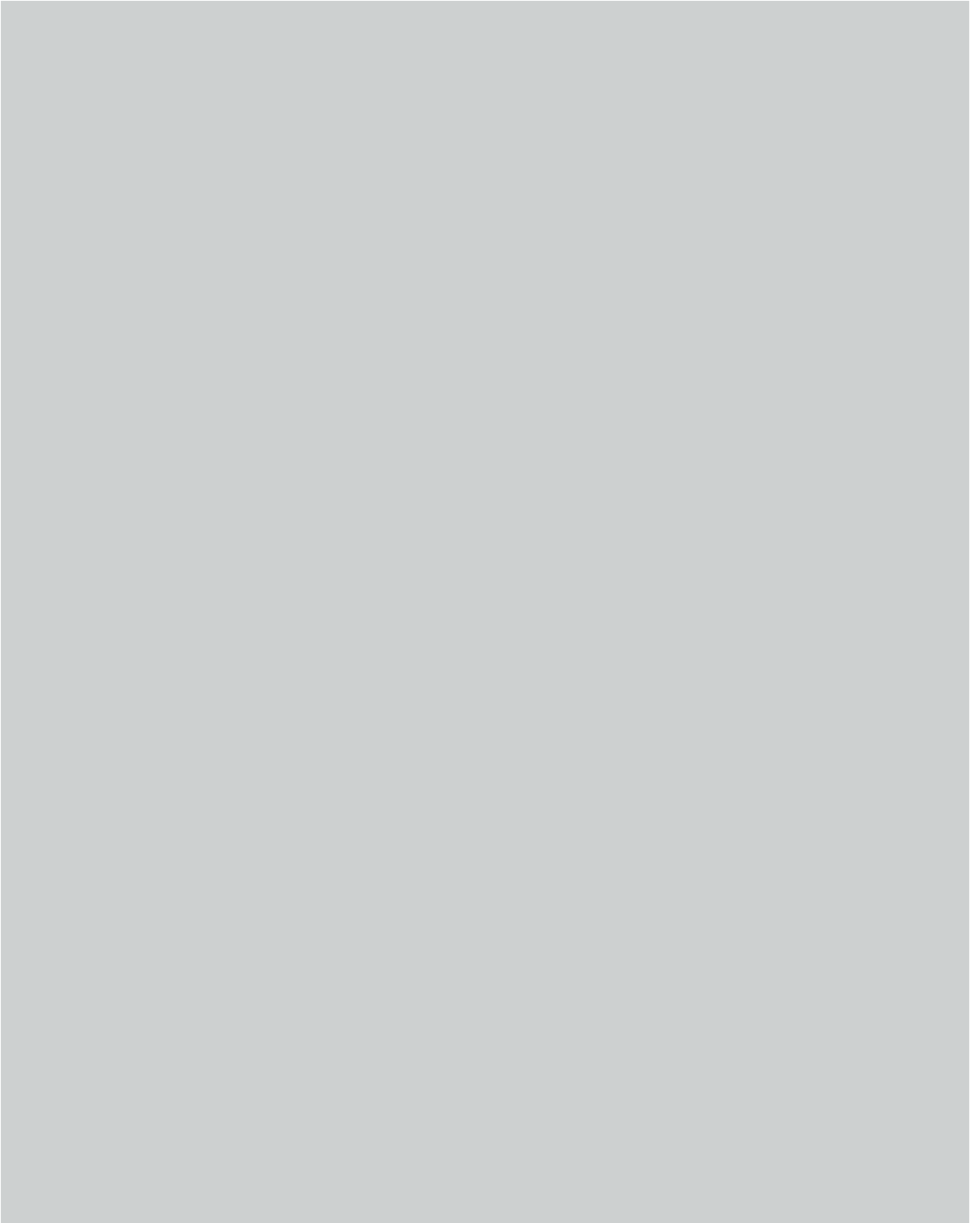




BANCA D'ITALIA
EUROSISTEMA

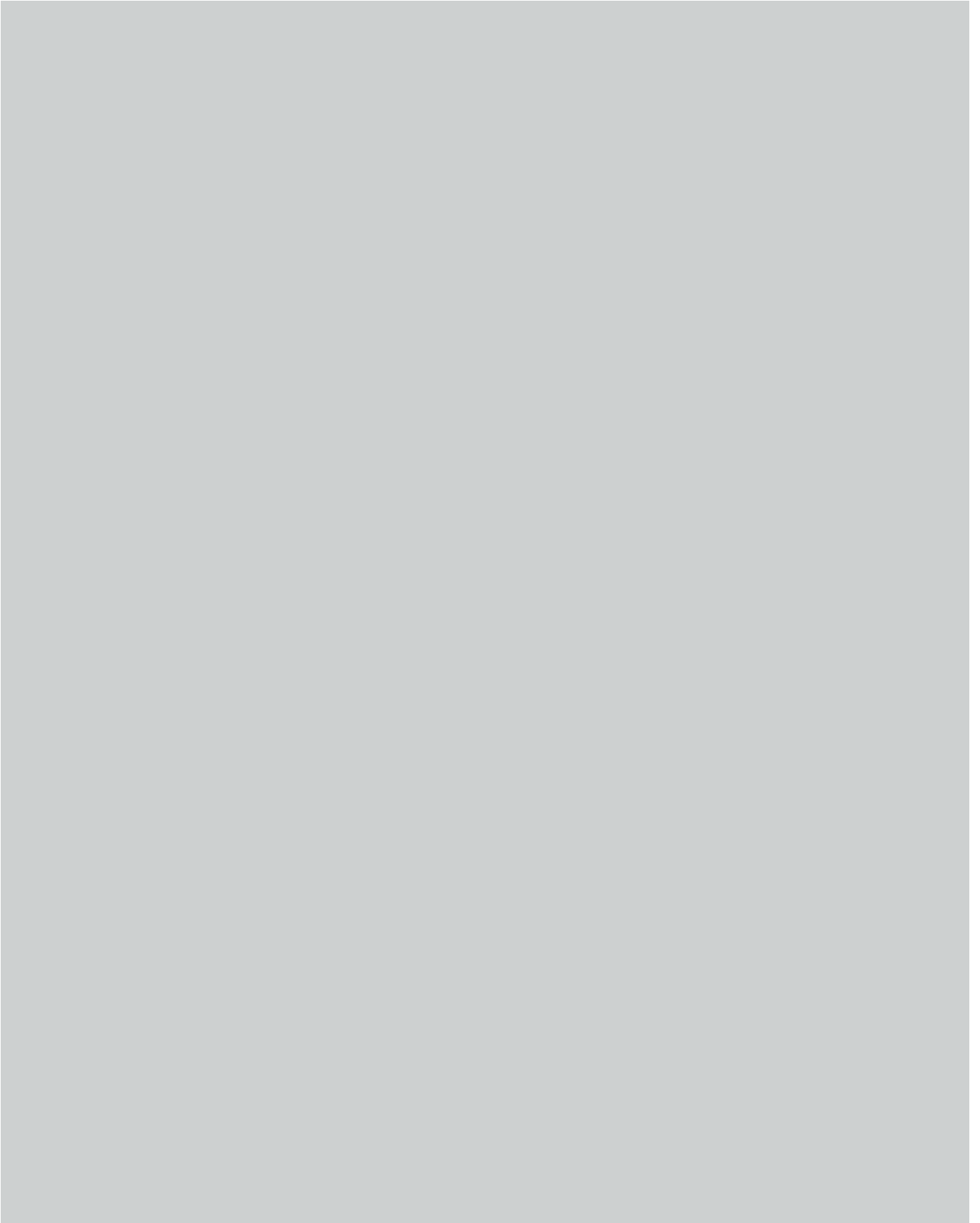
Environment Report 2013





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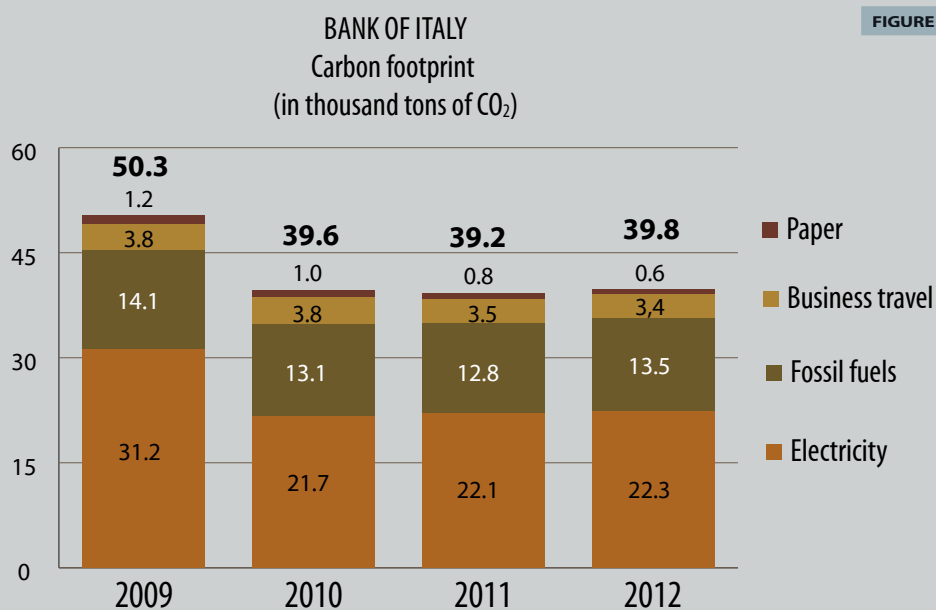
introduction

Over the last few years the Bank of Italy has striven to reduce and continuously monitor its ecological footprint, in line with the strategic objectives set out in its environmental policy (a rational use of resources, efficient waste management, sustainable mobility, and “green” procurement). Reducing its impact on the environment, within the broader context of its commitment in terms of social responsibility, is one of the objectives in the Bank’s Strategic Plan for 2011-2013.

The 2013 Environment Report, in line with the previous editions available on the Bank’s website, provides a comprehensive overview of the Bank’s environmental impact by means of quantitative indicators, presenting the progress made and identifying the areas that require greater attention in the future. Please see the Methodological Note for detailed information on the data illustrated in the Report and the areas to which they refer.

Overall, the Bank’s ecological footprint was smaller in 2012 than in 2009.

Total CO₂ emissions, following the reduction in 2010 – which was mainly due to the increase in the share of renewable energy purchased – remained mostly stable in the years that followed (see Figure 1). In 2012 CO₂ emissions registered a slight increase compared with the previous year, mainly due to a greater consumption of heating fuels.



introduction

An analysis of the data on consumption of electricity and fossil fuels reveals that the significant reduction observed in 2010, which was largely due to the reorganization of the Bank's branch network, was followed by three years of basically stable consumption levels, despite an increased demand for energy.

Between 2009 and 2012 water consumption gradually decreased. Over the same period, paper consumption went down significantly (see Figure 1) thanks to the gradual shift away from working in hard copy, both for documentation and general office work.

Significant progress was made in the management of waste – from offices, canteens, and banknote printing and sorting – which is increasingly sent for recycling or waste-to-energy processing.

Finally, CO₂ emissions arising from business travel gradually decreased in the four-year period under review (see Figure 1): the total number of kilometres travelled in 2012 was lower than in 2009, and train travel, which is a more environmentally friendly mode of transport, increased. Furthermore, specific initiatives were launched with regard to the staff's journeys to and from work.

energy

-6.9%

the reduction in tons of oil equivalent (TOE) from 2008 to 2012

The Bank's objective is to reduce its energy consumption and to use energy more efficiently, by renovating and adapting its premises and their facilities, and via staff-awareness initiatives.

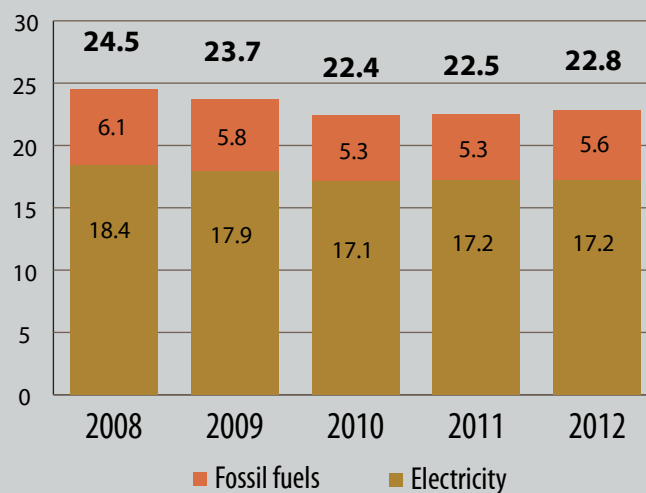
As regards technical improvements to the Bank's premises, the air-conditioning facilities have been updated with highly energy-efficient systems that can be controlled individually. In 2011 an initiative was launched to evaluate the use of energy in the Bank's premises, with a view to identifying specific ways in which to curb consumption.

With the aim of reducing energy consumption at the two data processing sites - the Largo Bastia complex and the Donato Menichella Centre, the installation of highly energy-efficient "islands" (modular units to house computers) equipped with internal integrated air-conditioning systems is nearing completion. The shift from an air-conditioning system that cools the entire environment where the computers are housed to a system of individual "islands" will lead to a reduction in energy consumption of about 30% for the same output of computer power.

In terms of staff-awareness initiatives, during the first few months of 2012 a "Guide to saving energy in the workplace" was distributed among staff, to promote the adoption of a few simple practices in the use of office equipment to help reduce the overall ecological footprint of the Bank (switching off all electronic equipment and lights at the end of each day, modifying the set-up of PCs and printers, etc.).

BANK OF ITALY
Total consumption of energy
(thousands of tons of oil equivalent - TOE)

FIGURE 2



As shown in Figure 2, the consumption of energy (electricity and fossil fuels) gradually declined between 2008 and 2010, mainly as a result of the closing of branches. From 2011, despite an increase in demand for energy (due to improvements to the cooling, heating and lighting systems and the expansion of IT facilities), consumption levels remained basically stable.

BANK OF ITALY
Comparison of energy consumption in the Bank's main buildings
in 2009-2012 (thousands of tons of oil equivalent - TOE)

FIGURE 3

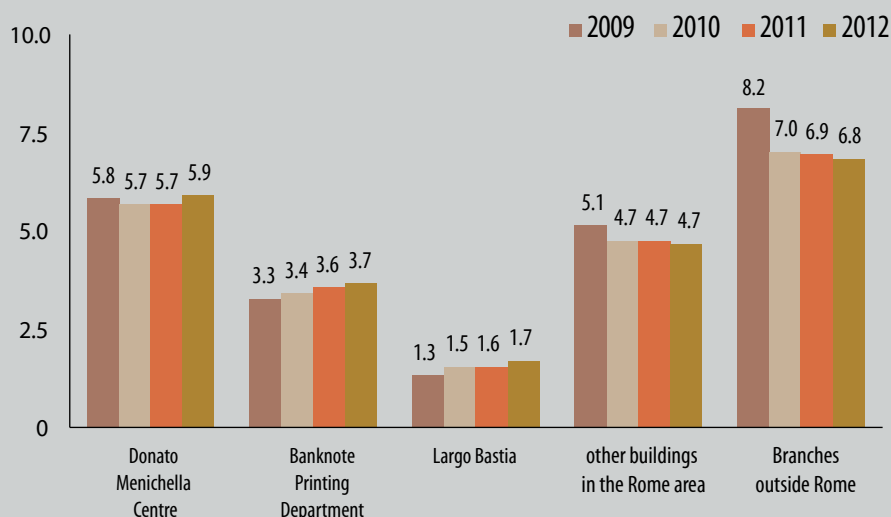


Figure 3 shows the energy consumption of the Bank's main buildings in tons of oil equivalent (TOE), the unit of measurement that makes it possible to have a single aggregate measure of the consumption of electricity and fossil fuels. In the period under review there was a gradual increase in energy consumption in the Largo Bastia premises, which house a data processing centre, and in the Banknote Printing Department, where there was a switch to two-shift working at the end of 2009.

-23%

the reduction in the energy consumption of the Bank's branches between 2008 and 2012

In addition to the technical and staff-awareness measures aimed at curbing energy consumption, in 2009, with a view to promoting the production and use of "green" energy, the Bank asked its electricity provider to obtain a share of its energy from renewable sources. Specifically, in 2009, the two main buildings in the Rome area, Palazzo Koch in Rome and the Donato Menichella Centre in Frascati, began to run on "green" energy. From 2010, the Banknote

energy

53.1%

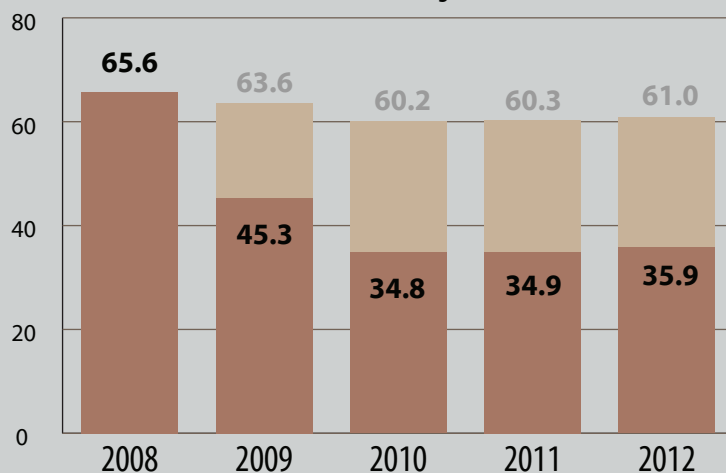
the percentage of electricity derived from renewable sources in 2012

Printing Department was also powered by renewable energy. In 2013 all electricity purchased and used in the Bank's offices has come from renewable sources.

Furthermore, a project was launched with the aim of producing energy directly through the installation of solar panels on some of the Bank's buildings. In 2010 a solar thermal system was installed in the Donato Menichella Centre for the production of hot water, and a photovoltaic generator for the production of electricity is currently being installed in the Banknote Printing Department.

BANK OF ITALY
CO₂ emissions generated by the consumption of energy
(millions of kilograms)

FIGURE 4



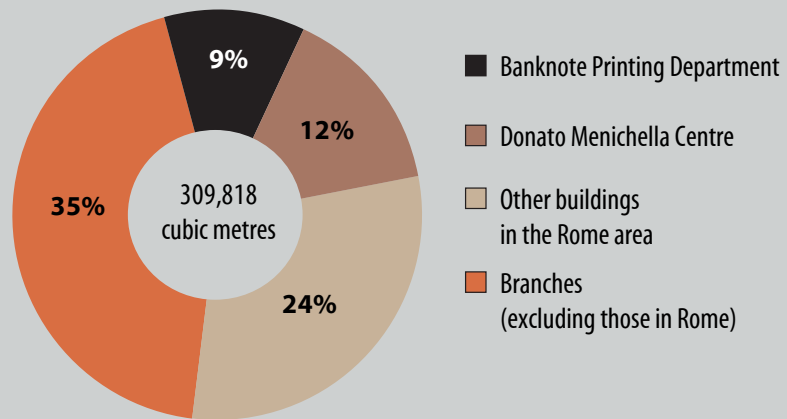
CO₂ emissions due to the consumption of electricity and fossil fuels are shown in Figure 4. The lighter parts of the bars for the years 2009-2012 show the emissions that have been avoided as a result of using electricity from renewable sources. Thanks to the purchase of the share of renewable energy (37% in 2009 and around 53% in subsequent years), which is usually considered to emit no carbon dioxide, it has been possible to significantly reduce the Bank's CO₂ emissions: in 2012 alone the emission of more than 25 thousand tons of carbon dioxide was avoided.

water

In the Bank's buildings water is used mainly for drinking and everyday purposes. Over the years various projects have been carried out to limit the consumption of water, including the installation of aerators on taps. Furthermore, where permitted, preference is given to the use of non-drinking water in the buildings if it is available.

BANK OF ITALY
Consumption of drinking water in 2012

FIGURE 5



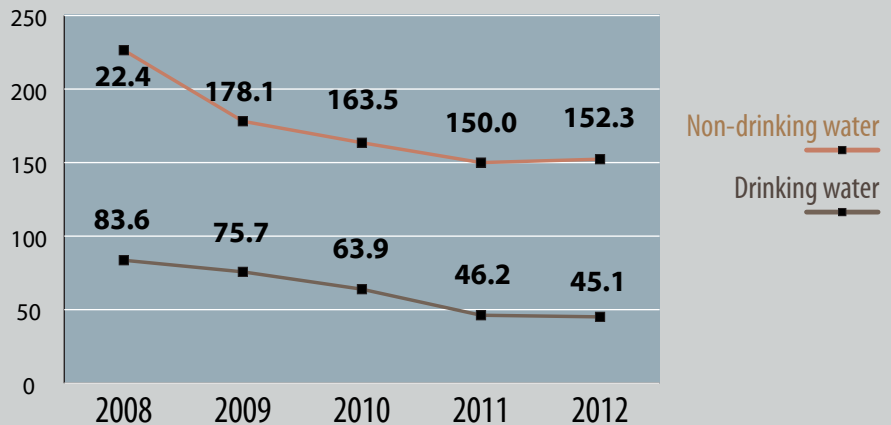
-19.3%

the reduction in the Bank of Italy's drinking water consumption compared with the previous year

In part thanks to such projects, the total consumption of drinking water at the Bank of Italy decreased by 44% between 2008 and 2012, standing at around 310,000 cubic metres in 2012, and distributed as indicated in Figure 5.

DONATO MENICHELLA CENTRE
Consumption of water
(thousands of cubic metres)

FIGURE 6



water

Most of the non-drinking water is used in the Banknote Printing Department and in the Donato Menichella Centre, for industrial purposes and for watering the gardens. In the Banknote Printing Department the industrial non-drinking water is reused for the printing machinery-cooling system.

The water consumption of the Donato Menichella Centre is shown in Figure 6: the consumption of both drinking and non-drinking water has, on the whole, declined over the last five years, with the exception of a slight increase in non-drinking water in 2012.

paper

24

the number of sheets of A4 paper used per day on average by each staff member at the Bank

In performing its functions, the Bank produces a significant amount of printed matter: publications, print-outs, internal and external document flows, reports, etc.

As a result of technological innovation there has been a gradual shift from paper-based to digital work and, consequently, a gradual reduction in paper consumption: in recent years, thanks to the launch of the new correspondence procedure and the introduction of the electronic signature and certified electronic post, it has been possible to dematerialize all internal document flows and a large percentage of documents being sent out; furthermore, use of the Bank's website for communication with its users has increased. Finally, the progress made on the electronic treasury services project has enabled the shift to digital versions of a significant percentage of documents.

As regards internal paper saving, the Bank has subscribed to the online versions of all newspapers and periodicals, both from Italy and abroad, that provide such a service.

In addition to the initiatives for reducing the amount of paper used, from the end of 2011 all bank units were provided with recycled paper for office use. The paper is made from 100% recycled fibres and bears an ecological quality stamp certifying its adherence to specific environmental standards in the respective stages of production.

The initiatives described above have led to a steady reduction in paper consumption over time. Figure 7 shows that the amount of non-recycled and

-28.4%

the reduction in the supply of paper for office use in the Rome area between 2008 and 2012

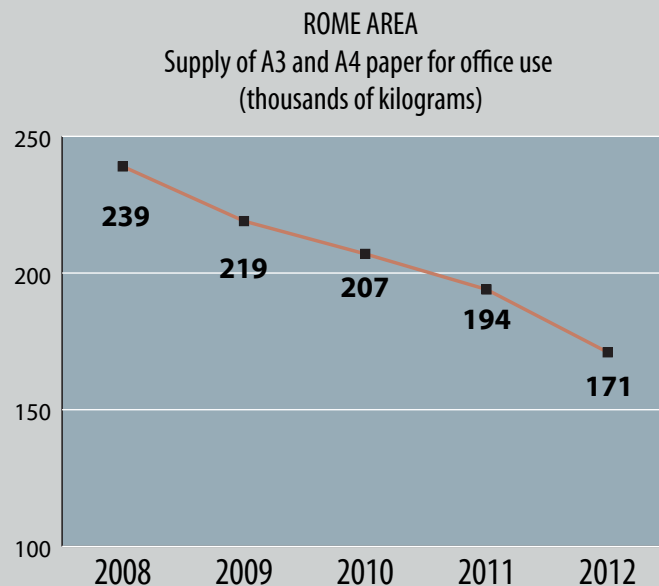


FIGURE 7

recycled A3 and A4 paper ordered for the Rome area decreased by more than 28% between 2008 and 2012. Figure 8 shows the increase over the last three years

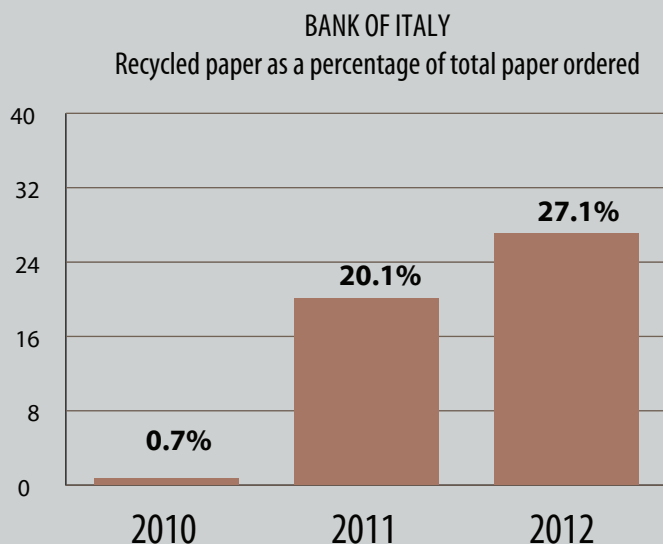


FIGURE 8

in the amount of recycled paper purchased for office use as a percentage of the total. In 2012, the percentage of recycled paper used in the Bank's branches was again higher than that used in the head office, standing at 38%.

-40.1%

the reduction in the use of paper for printing the Bank's publications between 2008 and 2012

The amount of paper used in the Printing and Publishing Division, which prints the Bank's publications, decreased by 40% (see Figure 9).

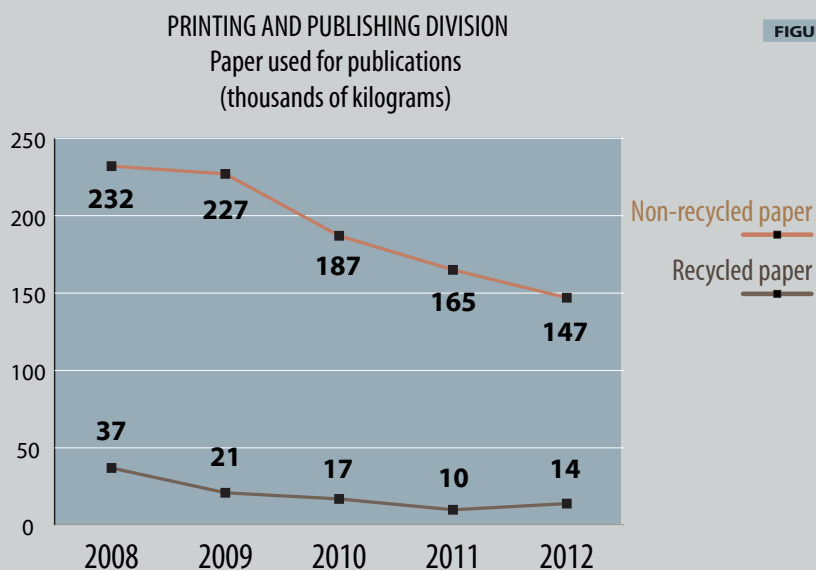


FIGURE 9

461.2

tons of CO₂ not produced in a year thanks to the non-disposal of paper sent for recycling

Over the last few years various initiatives have been carried out with the aim of reducing, on the one hand, the amount of waste produced, and promoting, on the other hand, the recycling or waste-to-energy processing of the waste that is generated. These initiatives have targeted office waste (for the most part paper and empty toner cartridges) and canteen waste (food waste, plastic bottles, glass, cans, etc.), as well as special waste generated by the Banknote Printing Department and the Printing and Publishing Division.

Office waste is separated for collection and sent for recycling. The separate collection of paper and empty toner cartridges began in 2008 in all the Bank's offices. In all Rome area premises and in some branches, plastic, glass, metal and dead batteries are also collected separately for recycling.

ROME AREA
Paper sent for recycling
(thousands of kilograms)

FIGURE 10

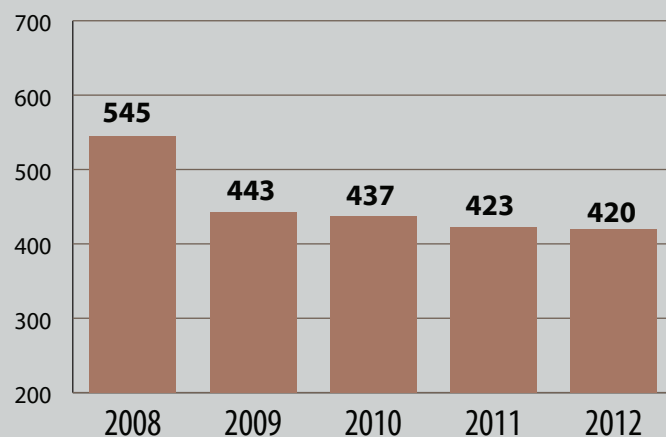


Figure 10 shows the amount of paper waste collected from the Rome area premises and sent for recycling. The reduction observed since 2008 can be linked to the gradual decline in consumption of paper for office use.

All the Bank's canteens also separate waste for collection. Upon renewal of the contract for catering services, a facility will be installed to provide drinks on tap in the canteens, with a view to preventing the production of waste such as small plastic bottles and cans.

BANKNOTE PRINTING DEPARTMENT
Special waste produced
(thousands of kilograms)

FIGURE 11

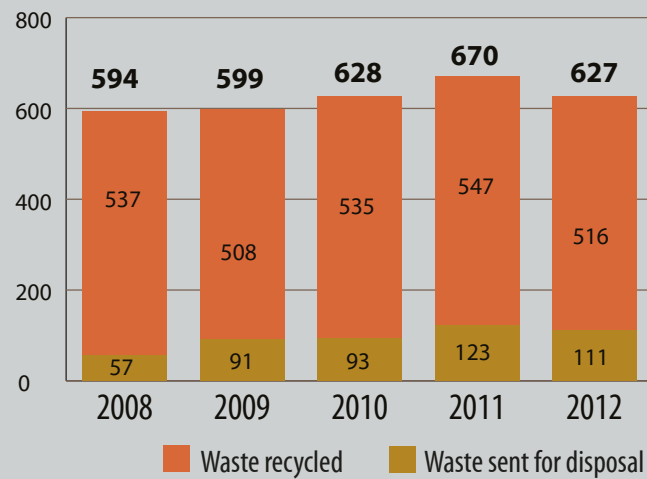


Figure 11 shows the amount of special waste produced in the Banknote Printing Department in the five years under review: the percentage of such waste that was sent for recycling or waste-to-energy processing remained above 80%.

shredded banknotes

The Bank of Italy produces its allocated share of euro banknotes and puts them into circulation. It also withdraws worn banknotes from circulation and shreds them using the requisite equipment.

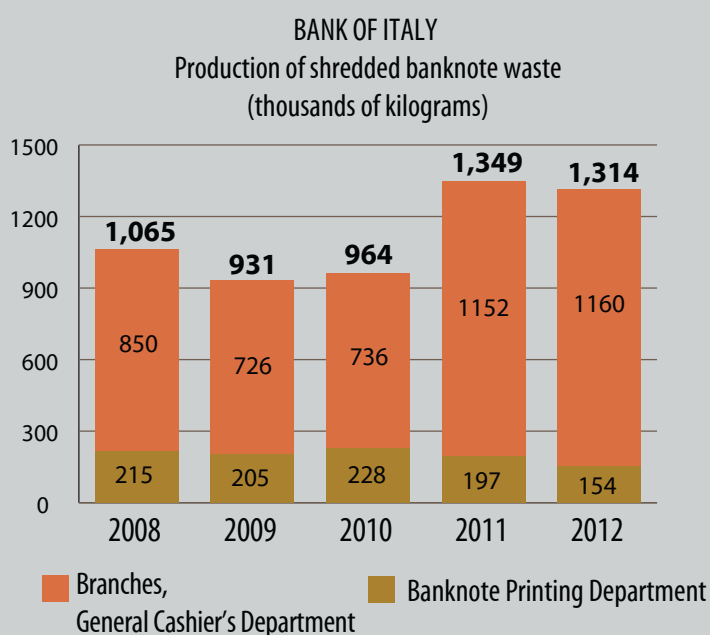


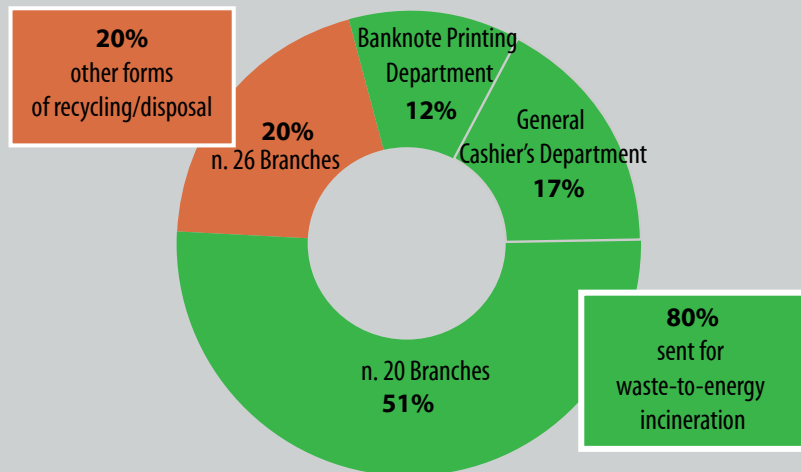
Figure 12 shows the quantities of waste produced in the form of shredded banknotes since 2008. The increase in the overall quantity observed since 2011 can be attributed to the increase in the number of banknotes sorted and judged as worn. The figure also shows data on the paper waste produced by the Banknote Printing Department, which is made up of discards, trimmings and paper used to start up the printers.

In line with the initiatives of other central banks, in 2009 the Bank of Italy launched a programme aimed at promoting the waste-to-energy processing of banknote waste via incineration, the most suitable solution from the environmental standpoint. Figure 13 shows the different solutions (recycling/disposal) adopted in 2012 for shredded banknote waste produced at the different sites: 80% of it was sent to waste-to-energy incineration facilities.

shredded banknotes

FIGURE 13

BANK OF ITALY
Percentage of waste in the form of shredded banknotes in 2012,
broken down by origin and grouped according to final treatment (recycling/disposal)



sustainable mobility

business travel

-11.8%

fewer kilometres travelled
in 2012 compared with 2011

Business travel has an impact on the environment. One of the initiatives carried out with the aim of reducing staff business travel was that of installing videoconferencing equipment in the meeting rooms of the main buildings. The number of rooms equipped increased steadily to reach 68 in 2012 (33 in the head office premises and 35 in the branches).

BANK OF ITALY
Comparison of distances travelled by means of transport
in the period 2009-2012
(millions of kilometres)

FIGURE 14

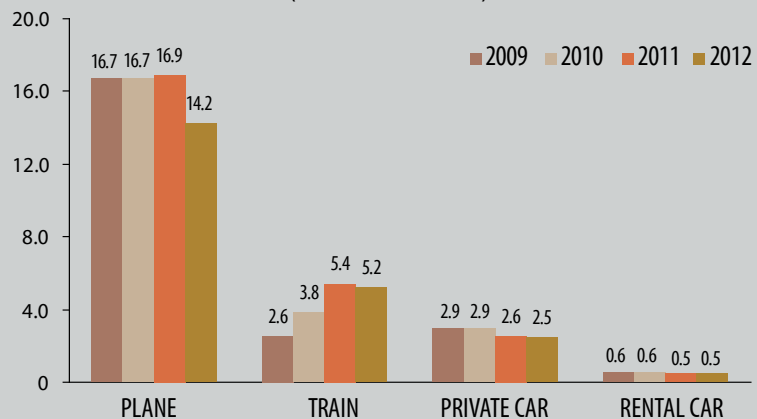


Figure 14 shows the total number of kilometres travelled on business trips over the last four years, broken down by the various modes of transport. The rising trend in the total number of kilometres travelled observed until 2011 was inverted in 2012, mainly as a result of a decline in the number of kilometres travelled by air.

The table gives the percentages, for the years 2009-2012, of travel by plane and by train for the different distance bands. Travel under 300 km in the last three years has been almost exclusively by train, with the exception of a few journeys to Sardinia by plane.

479

kilograms of
CO₂ generated per capita
for business travel

	2009		2010		2011		2012	
	✈️	🚆	✈️	🚆	✈️	🚆	✈️	🚆
0-300 km	10%	90%	1%	99%	2%	98%	5%	95%
300-600 km	70%	30%	56%	44%	42%	58%	51%	49%
600-900 km	99%	1%	93%	7%	67%	33%	95%	5%
Roma - Milano (585 km)	72%	28%	60%	40%	49%	51%	52%	48%

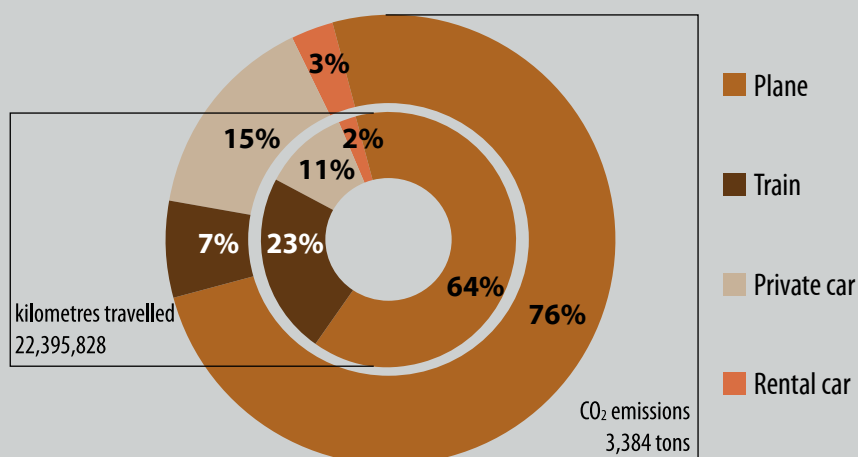
sustainable mobility

business travel

Up to 2011, in the 300-600 km and the 600-900 km bands, there was a steady increase in travel by train rather than by plane. In 2012 there was an increase in travel by plane compared with the previous year. For the most frequently travelled route (Roma-Milano), in 2012 the number of trips by train almost equalled that of trips by plane. For trips of over 900 km, only the plane is used.

BANK OF ITALY
Business travel 2012
 (tons of CO₂ emitted in relation to kilometres travelled)

FIGURE 15



The inner circle of Figure 15 gives, as a percentage of the total, the number of kilometres travelled for business reasons on the various modes of transport; the outer circle gives the CO₂ emissions for each means of transport. The figure shows that train travel, while accounting for almost a quarter of the kilometres travelled, produces emissions equal to only 7% of the total.

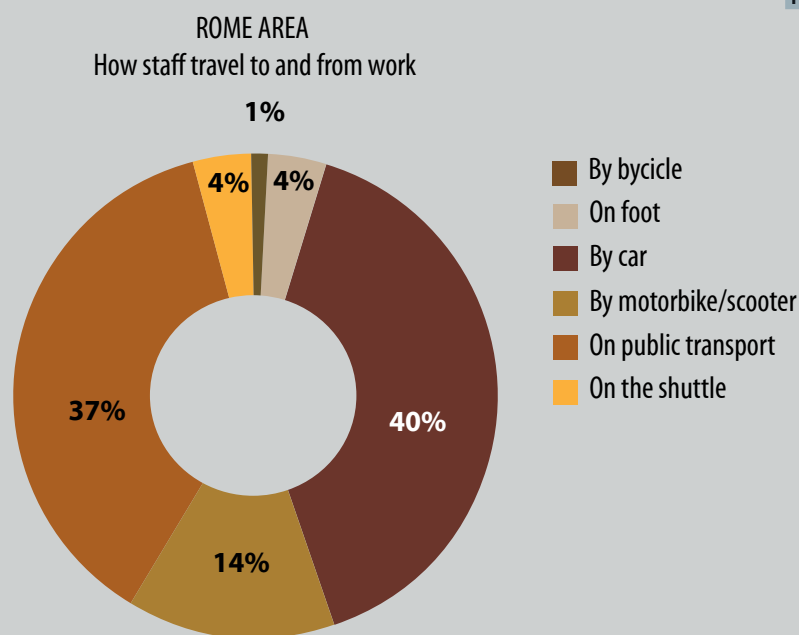
sustainable mobility

the journey to and from work

The journeys of staff to and from work has significant implications from an environmental standpoint, in particular those of the 4,500 or more employees that work in the various buildings of the vast urban Rome area (in Rome and Frascati).

Since the introduction of the position of “mobility manager” (under Ministerial Decree 27/98), the Bank has undertaken various initiatives aimed at reducing the environmental impact of staff journeys to and from work: the establishment and gradual expansion of a dedicated shuttle service, agreements with the local public transport provider (subsidies for local public transport and the car-sharing service), and the installation of bicycle stands and charging points for electrical vehicles.

FIGURE 16



*data from mobility questionnaire

3

kilograms of CO₂ generated per day per staff member in the Rome area on the journey to and from work

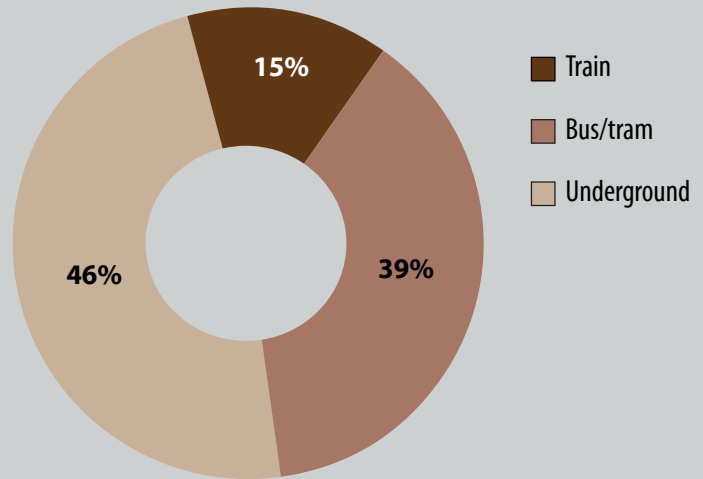
In addition, in 2012 a questionnaire was distributed among employees working in the Rome area to elicit more information about their journeys to and from work. The responses (see Figure 16) revealed that the most frequently used mode of transport is the private car (40%), followed by public transport (37%) and motorbikes/scooters (14%). Among the different means of public transport used (see Figure 17), often in combination with each other and in combination with private transport, the one used by the

sustainable mobility

the journey to and from work

largest number of staff is the underground (46%), followed by the bus/tram (39%) and the train (15%). On average, each employee travels 21 km per day on the journey to and from work (in one of the three areas in which the Bank's buildings are clustered: the centre, Tuscolano and Frascati), giving rise to daily emissions per capita of 3 kg of CO₂.

ROME AREA
Means of public transport used by staff on the journey to and from work **FIGURE 17**



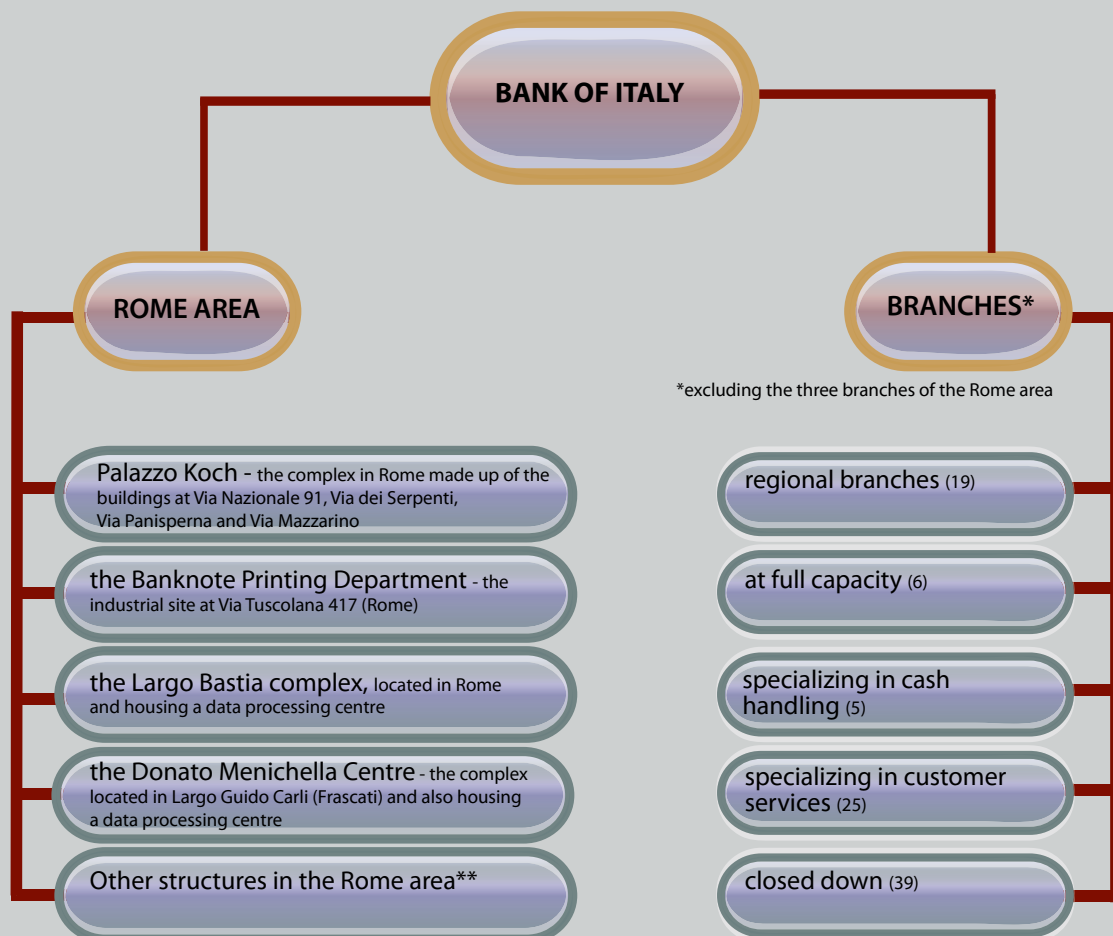
*data from mobility questionnaire

methodological note

All the data contained in this report are updated to 31 December 2012. The data were produced by the Bank's Health and Safety Office on the basis of information provided by the various departments.

All data are labelled according to the area to which they refer, as follows:

BANK OF ITALY – the buildings housing the departments of the Bank's head office and branches. This aggregate does not include the buildings that only house the archives or those used by the Bank's social and cultural centre (C.A.S.C.) and the in-house bank for the staff (C.S.R.). The aggregate data for the Bank of Italy therefore reflect any increases or decreases due to purchases of buildings or termination of their use for



**the Via Milano complex comprising the buildings located at Via Milano 53, 60/g and 64; the Via XX Settembre complex, housing the Roma Sede branch and head office departments located at Via Pastrengo, 14; the Via Piacenza complex, comprising buildings on Via Piacenza and Via Parma and at Via Nazionale 187 and 191; and buildings located on Via Quattro Fontane, 123, Via Due Macelli, 79, Via IV Novembre, 158, Via Otricoli, 41-57, and Via dei Mille, 52.

methodological note

institutional purposes following the reorganization of the Bank's branch network.

ROME AREA - the main Bank of Italy buildings in Rome and Frascati, housing the Bank's head office and the branches (Roma Sede, Roma Succursale and Roma Donato Menichella Centre) (see figure).

Reference is also made to:

the Bank's Printing and Publishing Division, which is part of the General Affairs Department, located at Palazzo Koch;

the General Cashier's Department, which is located at Palazzo Koch.

The number of staff employed by the Bank of Italy was 7,069 on 31 December 2012 (see "Annual Report for 2012", available on the website). The number of employees in the Rome area (4,561) was calculated by summing the employees in the Bank's head office departments to those in the three Rome branches (Roma Sede, Roma Succursale and Roma Donato Menichella Centre): accordingly, staff seconded to the Bank's social and cultural centre (C.A.S.C.), the in-house bank for the staff (C.S.R.) and the representative offices abroad, etc. were not included.

To calculate the environmental indicators per employee (e.g. the per capita consumption of paper), no account was taken of the presence in the Bank's buildings, even on a continuous basis, of staff of external companies or of Carabinieri police officers.

+79

the increase in the number of employees compared with the previous year

