Switching from Risks to Opportunities: the Application of Superbonus Tax Incentive to the 1960s Built Heritage in Fragile Mountain Contexts

land

MDPI

Article

Switching from Risks to Opportunities: The Application of a Superbonus Tax Incentive to Heritage Buildings from the 1960s in Fragile Mountain Contexts

Alessia Gotta [1], Umberto Mecca [2,*] and Manuela Rebaudengo [3]

[1] Independent Researcher, 39100 Bolzano, Italy; gotta.arch.alessia@archiworldpec.it
[2] Department of Architecture and Design, Responsible Risk Resilience Centre, Politecnico di Torino, Viale Pier Andrea Mattioli 39, 10125 Torino, Italy
[3] Interuniversity Department of Regional and Urban Studies and Planning, Responsible Risk Resilience Centre, Politecnico di Torino, Viale Pier Andrea Mattioli 39, 10125 Torino, Italy; manuela.rebaudengo@polito.it
* Correspondence: umberto.mecca@polito.it; Tel.: +39-011-090-5317

Abstract: This paper introduces actual considerations for the progressive disuse of residential space in the Alpine territory, considering possible actions. Nowadays, the building complexes built around the 1960s and 1970s (a symbol of mass tourism) are suffering and searching for a new identity. The generation of owners who bought them has aged and the propensities of the new generations for holiday in those places has changed, which means fewer opportunities for leisure, particularly in the winter. Due to the great attention (and seeming opportunities) of current incentive policies toward improving the energy use of the existing stock, the authors investigate the private conveniences of transformations through the refurbishment of these buildings. Starting from a study of the territory and the dynamics of the local population, this research analyzes a possible set of energy works, based on a new (2020) incentive measure, the 110% Superbonus, which consists of a series of facilitation mechanisms, deductions, and reimbursements for building interventions. A large part of the insight is focused on a technical and economic feasibility study of the possible actions, following a process based on the evolution of the legislation. This work is based on a specific case study, located in a small municipality in the Piedmont mountain area, consisting of three apartment blocks of mostly second homes. The methodology adopted lends itself on the one hand, as a guide for preliminary economic energy assessments and, on the other hand, as a policy evaluation tool from the public and private perspectives.

Keywords: energy efficiency; existing buildings; maintenance; envelope retrofitting; Superbonus 110%; economic sustainability

Citation: Gotta, A.; Mecca, U.; Rebaudengo, M. Switching from Risks to Opportunities: The Application of a Superbonus Tax Incentive to Heritage Buildings from the 1960s in Fragile Mountain Contexts. *Land* **2023**, *12*, 1130. https://doi.org/10.3390/land12061130

Academic Editors: Maria Rosa Trovato and Salvatore Giuffrida

Received: 11 April 2023
Revised: 15 May 2023
Accepted: 17 May 2023
Published: 25 May 2023

1. Introduction

Studies of the earth's climatic history show how, over the centuries, there have always been more or less rapid and more or less cyclical phases of climate change. However, the last 150 years, from industrial development onward, have witnessed a progressive and anomalous increase in temperatures, as well as the intensification of extreme climatic events, such as heat waves, droughts, or very intense and protracted rainfall. Undoubtedly, one of the main causes of these sudden variations is mankind with its activities and related greenhouse gas (GHG) emissions [1,2]. In fact, according to the "Global Warming of 1.5 °C" report by the Intergovernmental Panel on Climate Change (IPCC), these have already caused global warming of about 1 °C compared to pre-industrial levels, and it is likely that this value will increase further, reaching 1.5 °C between 2030 and 2052 [3]. The future of natural and anthropogenic systems depends on the temperature increase, its magnitude, and the speed with which it occurs [3,4]. In December 2019, the European Commission adopted the "Green Deal", a new growth strategy that aims to achieve climate neutrality

in 2050 with zero CO_2 emissions [5]. By 2030, GHG emissions will have to be reduced by 55 percent compared to 1990 values, so many transformative policies will have to be developed and financed in various sectors, from energy to industry or even, for example, transport. A key role will certainly be played by buildings [6–8], regardless of their intended use. These, in fact, in addition to being highly energy-consuming (responsible for 40% of final energy consumption), are also responsible for 36% of GHG emissions [9]. It is believed that in order to reach the 2030 targets, actions taken on buildings should be able to reduce GHG emissions by 60% [10]. However, the average annual rate of energy refurbishment of the EU building stock is currently too low (around 1% per year [10]). Therefore, in order to stimulate energy efficiency measures, tax incentives have been developed and adopted in some EU countries in the residential, commercial, and public administration sectors [11] (Figure 1). In particular, as far as the residential sector is concerned, the country that has introduced the most incentive measures is Belgium, followed by France and Portugal.

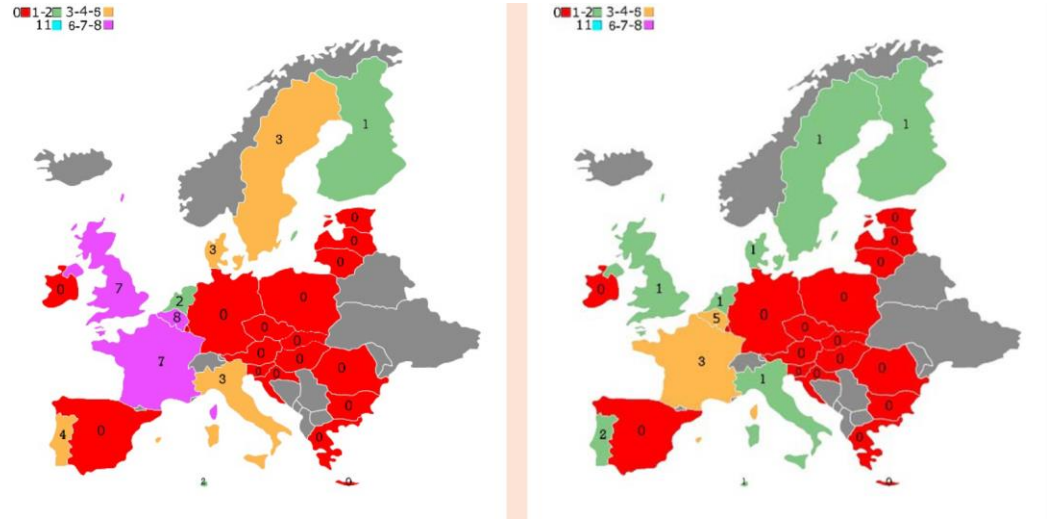

Figure 1. The total number of tax–level incentive measures adopted in each state encompassing the residential and/or commercial and/or government sectors (**left**) and the total number of tax–level incentive measures adopted in each state pertaining to residential only (**right**) (source: ENEA [11]).

As far as the Italian case is concerned, until the end of 2019, there was only one incentive measure (Ecobonus [12]), but since July 2020, a new one has been introduced (Superbonus [12]), which, due to the rates introduced, is expected to be very impactful not only in terms of energy efficiency and seismic upgrading of buildings but also for the creation of new jobs and, more generally, for the fact that it is expected to stimulate the recovery of a sector that has been struggling to recover since the crisis that started in the US in 2007 with the deflation of the real estate bubble [13]. Analyzing the trends over the last twenty years of investments in redevelopment and new construction (Figure 2), it is easy to see that these have had completely different trends. In fact, while the latter recorded strong growth between 1998 and 2006 and then collapsed from 2007 onward, investments in redevelopment activities have almost always recorded a slightly increasing trend, except for the period between 2000 and 2013, in which they basically remained constant.

Undoubtedly, the positive trend in the last years is due to the introduction of tax incentive measures and the increase in the respective rates. In fact, between 1998 and 2019, there was a significant increase in private building renovation interventions and, of these, the percentage of investments channelled by tax incentives rose from 12.9% to 55.3% [14]. Thus, in practice, at least one out of every two interventions are nowadays conveyed by the use of tax incentives that differ both according to the type of work to be carried out and the type of property being worked on. Specifically, there are some different facilitations that can be grouped into three different categories: (1) those applicable to interventions aimed at the energy efficiency of buildings ("Ecobonus" from Art. 14 of Decree Law No. 63/2016 [15]

and "Superbonus" from Art. 119 of Decree Law No. 34/2020 [16]); (2) those aimed at improving the structures of buildings from a seismic point of view ("Sismabonus" from Art. 16 of Decree Law No. 63/2016 [15]); and (3) those for building renovation works and the elimination of architectural barriers ("Bonus Casa" from Art. 16 of Decree Law No. 63/2016 [15] and "Bonus 75% barriere architettoniche" from Art. 119-ter of Decree Law No. 34/2020 [16]).

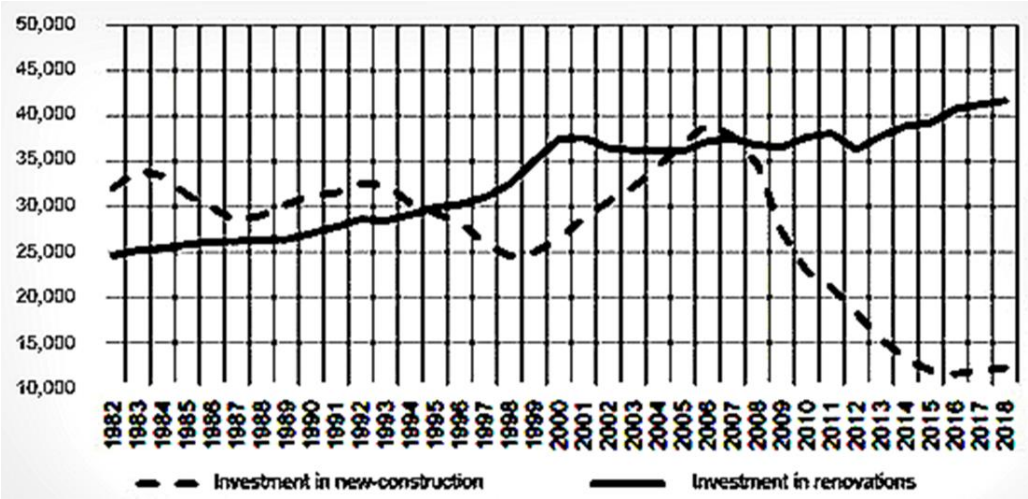

Figure 2. Investment in residential construction, 1982–2018 (in millions of Euros at 2005 prices) (image reprocessed by the author, source: CRESME, Ministry of Economy and Finance).

Certainly, the existence of these incentives will facilitate the upgrading of Italy's building stock, which certainly needs improvement. In fact, if we analyze the characteristics of the existing residential stock, we see that on the national territory, about 7.2 million buildings, or about 60 percent, were built before 1980 and are more than 40 years old, while 5.2 million buildings, or 42.5 percent, are more than 50 years old [14]. In addition, perhaps the most significant finding is that 51 percent of all housing was built before 1970, i.e., before the first energy conservation law (Law 373/76) and is, therefore, definitely energy intensive [17]. In order to cope with the long paying back times of building renovations, to stimulate the building sector, which is in a deep crisis, and to achieve the challenging goals of energy saving and emission reduction by 2030, as mentioned above, a new incentive measure was introduced in 2020 in Italy: the Superbonus tax incentive. With the research work reported here, the authors decided to analyze this measure (as it arose) in order to understand its potential and its critical issues from the perspective of building owners.

Therefore, in what follows, we will briefly describe the Superbonus measure by identifying the resources required for its activation and the possible short-, medium-, and long-term effects. Starting from this schematisation, we will then proceed to verify, with the support of a theoretical case study, one of the short-term objectives identified. In particular, the increase in the attractiveness of energy efficiency interventions in existing buildings by the owners of the building units that comprise them will be verified, since it is believed that this element is the catalyst for an extensive and consistent requalification of the private building stock.

2. The New Italian Incentive Measure: The Superbonus

The spread of the COVID-19 epidemiological emergency forced the Italian government to swiftly activate a series of measures on health, work, and economic support, as well as social policies to cope (Relaunch Decree: DR [16]). Among them, as far as the construction sector is concerned, the "Superbonus" (SB) certainly stands out, which aims to make Italian homes more efficient and safer by facilitating energy efficiency works (with

the "Super Ecobonus") and structural earthquake-proof improvements (with the "Super Sismabonus") [18].

However, this measure does not apply indiscriminately to all types of buildings. These, in fact, in addition to having to be intended for residential use, must also prove that they comply with urban planning and building regulations, ensuring the correspondence between the state of affairs and the building title with which the municipality authorized their construction and/or subsequent renovations and extensions.

Eligible interventions under this new measure are those carried out on the common parts of condominium buildings on functionally independent real estate units (i.e., units with exclusive ownership of at least three of the following installations: water supply systems, gas systems, electricity systems, and winter air-conditioning systems [18]) and with one or more independent accesses from the outside, which can be carried out on units inside multi-family buildings or applied to individual real estate units (up to a maximum of two).

Respecting the basic conditions listed above, the expenses incurred for the efficiency and safety of existing buildings can be deducted at 110%. In particular, limiting the study to the Super Ecobonus, the eligible works are divided into "Driving Intervention" (DI) and "Towed Intervention" (TI). In particular, the former include:

- Interventions for the thermal insulation of vertical, horizontal, and inclined opaque surfaces affecting the building envelope, including single-family buildings, with an incidence of more than 25% of the building's gross dispersion surface;
- Interventions for the replacement of existing winter air-conditioning systems with systems for heating and/or cooling and/or the supply of domestic hot water.

In addition to these, which are the predominant ones, "Towed Interventions" (TI), consist of:

- Further energy efficiency measures such as, for example, the replacement of windows and doors, the installation of biomass heat generators and thermal solar panels, etc.;
- Interventions for the installation of grid-connected solar photovoltaic systems on buildings;
- Interventions for the installation of storage systems integrated with subsidized solar photovoltaic systems;
- Interventions for the installation of infrastructure for recharging electric vehicles in buildings.

Starting from these two categories of interventions, for each energy efficiency project —for which one intends to access the SB— it must be demonstrated that the mix of interventions chosen leads to an effective improvement in the energy conditions of the building. To achieve this, the DR requires two energy analyses to be carried out on the building, one "ante" intervention and one "post", and that there must have been an improvement of at least two energy classes between the two.

Regarding the tax modalities by which the Superbonus can be enjoyed, Article 121 of the DR identifies three alternatives: the Direct IRPEF Deduction (DD) [19], the Invoice Discount (ID), and the Credit Transfer (CT), nowadays heavily revised in their general application (as will be mentioned below).

The DD, recognized to the extent of 110%, is to be divided among those entitled to five annual instalments of equal amount and for expenses incurred in 2022 in four annual instalments of equal amount, within the limits of the annual tax liability resulting from the tax return [20]. This arrangement also allows the full amount of the deductions to be used without it being reduced by expenses caused by transactions by third parties.

The ID, on the other hand, provides that suppliers may obtain a discount, in part or in full, for the amount due for their services. The discounted amount may then be recovered by the suppliers themselves in the form of a tax credit equal to 110% of the amount; alternatively, they may, in turn, assign the credit accrued to credit institutions or other financial intermediaries [20].

Finally, the CT mechanism allows the creditor to transfer the accrued credit to suppliers, credit institutions, and financial intermediaries, or other parties such as natural persons, self-employed or businesspersons, or companies and entities [20]. It is clear that the latter alternative, for the owner of the property, will entail an economic "sacrifice" equal to the discount of the tax; thus, the deduction enjoyed will be lower (approximately 100–104%) but the amount will be payable immediately by the taxpayer [20].

Lastly, a workflow summarizing the actions to be carried out in the case of implementing an energy efficiency intervention benefiting from the SB measure is outlined in Figure 3.

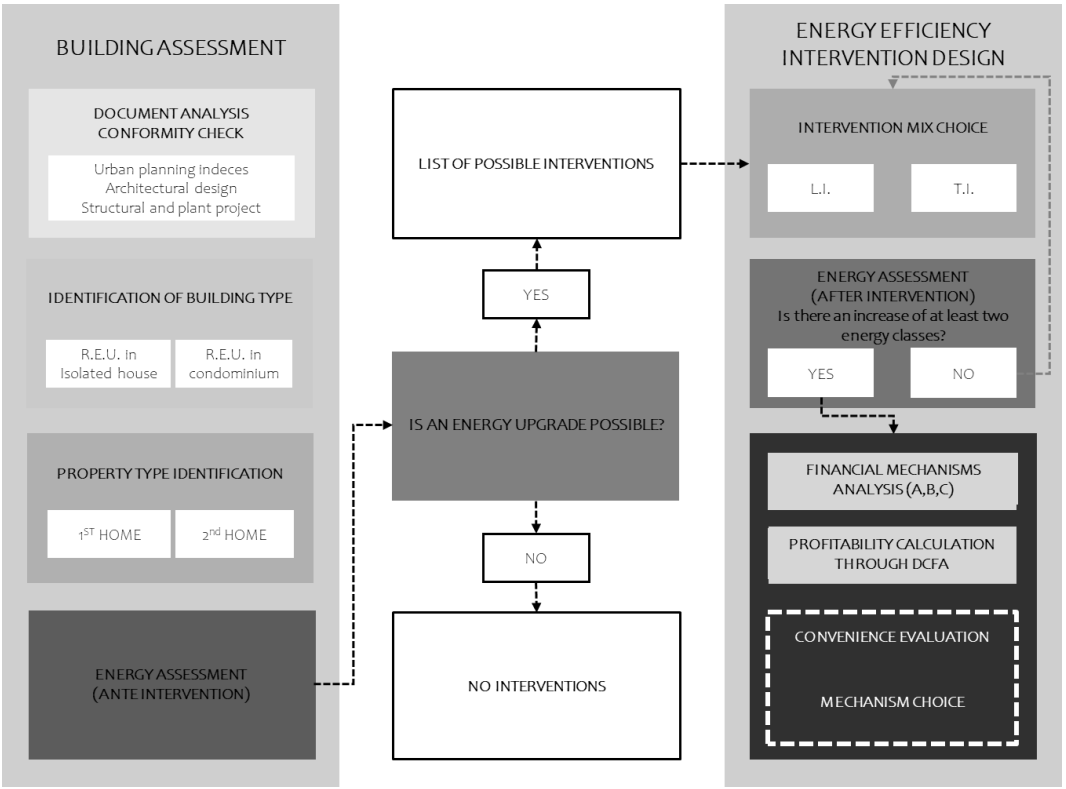

Figure 3. A schematic breakdown of the actions to be carried out in order to access incentives under the SB measure in case one intends to carry out energy efficiency work on a building (source: authors' elaboration).

2.1. Analyses and Objectives

In this study, an attempt was made to trace the mechanism that led to the formulation of the SB measure, identifying the reasons and objectives for which it was devised.

The technique used to coherently reconstruct the complexity associated with the introduction of SB is the logic model [21], which consists of a layered approach. Specifically, the method consists of applying a conditional logic (if-then) that starts from the identification of the resources invested in the programme (inputs) and the practical actions necessary to achieve the objectives (activities), and then it goes on to highlight the results (outputs) and the short-, medium- and long-term changes (outcomes and impacts) resulting from the actions introduced [22].

Starting from this framework (summarized in Figure 4), we then focused on verifying the attractiveness of this new measure for an owner who intends to carry out an energy efficiency intervention on his or her property, focusing, in particular, on verifying the different economic benefits that can be achieved according to the different ways in which the deduction envisaged by the SB can be used.

INPUTS	ACTIVITIES	OUTPUTS	OUTCOMES	IMPACTS
Implementation of European directives (Relaunch Decree) Design of new tools to stimulate upgrading (energy and structural) of the built heritage Money Personnel PA digital infrastructure Regulatory bodies	Enactment of legislative and administrative measures Training (PA) Identification of responsibilities of public entities Organization of digital platforms	Introduction of new tax deduction at the rate of 110% Introduction of new ways to take advantage of the tax deduction (invoice discount, credit assignment) Improvement of existing digital platforms Improving interoperability among existing digital platforms	Increased attractiveness of energy efficiency interventions and/or interventions for seismic improvement of existing buildings Increased attractiveness of financial transactions related to the introduction of the SB measure Simplification of financing procedures by lending institutions Increased demand for professionals specialized in the construction sector Increased demand for professionals with high digital and technological skills Increased demand for raw/secondary materials	Against Economic Emergency: 1. Re-activation of the construction market (private sector) 2. Increase in GDP 3. Increase in employment in the short to medium term Against climate emergency: 1. Reduction in energy consumption related to existing construction 2. Reduction in CO_2 emissions 3. Increased production of green energy

Figure 4. SB measure analysis by the application of the logic model (source: authors' elaboration).

2.2. The Application to the Case Study

In the 19th century, Italian tourism was only possible for a few wealthy families (aristocrats or upper middle class) [23]. However, between 1950 and 1960, thanks to the sudden improvement of general economic conditions and the development of transport routes, it also became accessible to the less well-off. This change led to speculative phenomena and the proliferation of a "second homes"—i.e., dwellings lived in only at certain times of the year—that had to be sufficiently flexible, "easy to maintain and abandon", and be able to accommodate large families [24].

The chosen case study is located in Sampeyre, a small mountain municipality in Val Varaita, in the Northwest of Italy (Piedmont), and belongs to one of those complexes that arose to satisfy the demand for second homes. In Figure 5, it is easy to see that these architectures are easily identifiable both because they do not respect the typical construction canons of the place and because of their dimensions, which are completely out of scale.

Due to the changing tourist habits of Italians, who increasingly prefer to explore new places rather than spend their holidays always in the same places, and due to the old age and functional obsolescence of these buildings erected between the 1960s and 1970s, there has been a progressive abandonment of them in recent years.

However, precisely because of the current health epidemic (COVID-19), it would seem that the use of second homes is making a comeback [25].

From this perspective, the SB measure is, therefore, of great interest to a wide segment of the population, from those who decide to upgrade their homes for habitual residence to those who intend to re-use them for summer or winter holidays, or those who intend to rent them out to those who intend to sell them for a profit.

In order to better understand the different economic benefits that can be derived from the application of SB, the case of the "Monte Nebin" complex in Sampeyre was chosen [26]. The accommodations that are part of the complex's three buildings are mostly second homes (Figure 6) and, to date, many of them are empty, having not been used for many years.

Figure 5. Mount Nebin complex in the foreground (Sampeyre, Cuneo) (source: Google Street View).

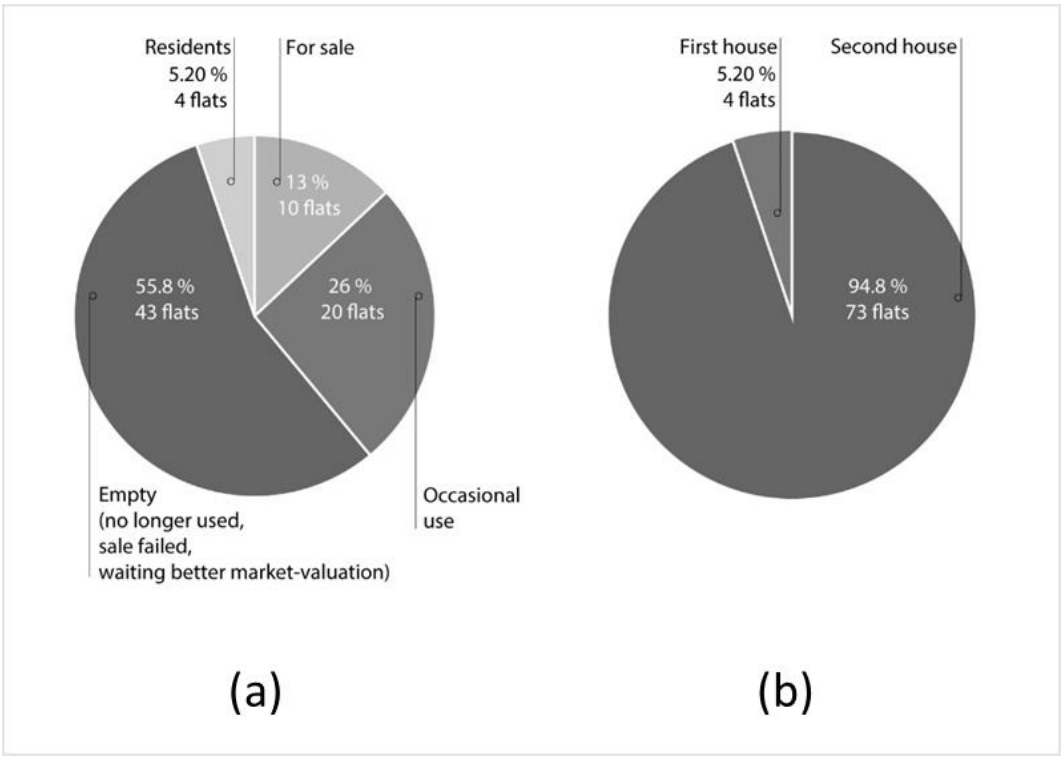

Figure 6. (**a**) Housing utilization of the entire complex and (**b**) ownership of the complex's units (source: authors' elaboration starting from [26]).

Most of the owners of the flats in the complex are pensioners who bought the flats in the late 1960s with the intention of investing their savings (remember that in that historical period the investment was considered "safe"). In particular, the most common types of

flats are two-room flats, but there are also some three-room flats with a different average size (Figure 7).

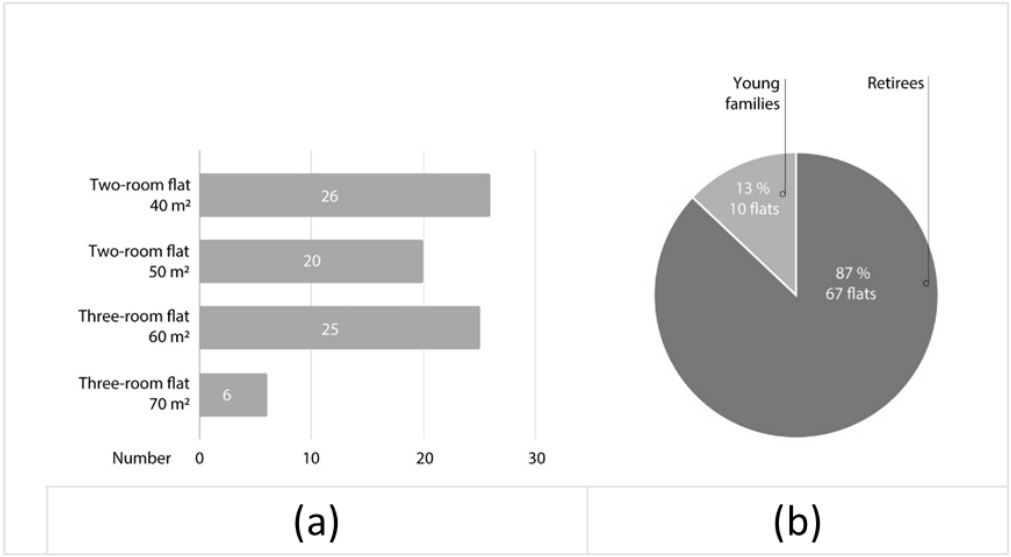

Figure 7. (**a**) Types of accommodation in the complex and (**b**) owners of units in the complex (source: authors' elaboration starting from [26]).

Regarding the maintenance condition, the exterior of the building is in good condition overall, as a façade painting job was carried out in 2018, and inside there are numerous architectural barriers as well as some issues related to thermal comfort.

2.3. Design and Scenarios

One of the prerequisites for access to the Superbonus measure is the requirement to improve the energy conditions of the building so that it makes a jump of at least two energy classes. In the specific case study, insulation of the opaque envelope was chosen as the leading intervention for all scenarios (by law, insulation must cover more than 25% of the dispersing surface), and the following were chosen as leading interventions: replacement of the windows and doors with new, low-emission ones, installation of solar screens and insulation of shutter boxes; replacement of old boilers with heat pump water heaters (PDC); and installation of solar collectors, puffers, photovoltaic panels, and storage batteries. All the scenarios analyzed qualify as major second-level renovations, as an opaque dispersing surface greater than 25% is always insulated.

Below is a diagram (Figure 8) of the scenarios assumed, resulting from the aggregation of the various interventions. As can be seen, scenario A considers only the insulation of the opaque envelope, while the scenarios that follow add the various towed interventions. Scenario B includes the replacement of window frames and the insulation of shutter boxes, as well as the addition of shading systems. Scenarios C and D contain not only the actions on the dispersing envelope but also the choices made for the building plant system. Specifically, photovoltaic panels have been sized for both, which will be connected to the grid in such a way as to be able to cover the auxiliary electricity consumption of the PDC water heaters throughout the year, thanks to the storage batteries. In scenario C, the water heaters were sized according to the domestic hot water (DHW) needs of each property unit, choosing between models with 80/100/200 litres of storage based on the estimated number of users. In scenario D, on the other hand, it was decided to maximize the production of DHW, choosing a hybrid installation. Eighty litre storage water heaters for each dwelling were chosen as the "minimum resource" (to avoid the installation of the largest and noisiest models), while to cover the needs of the largest dwellings, each unit was connected to the centralized 750-litre puffer, inside which the water was pre-heated by solar collectors.

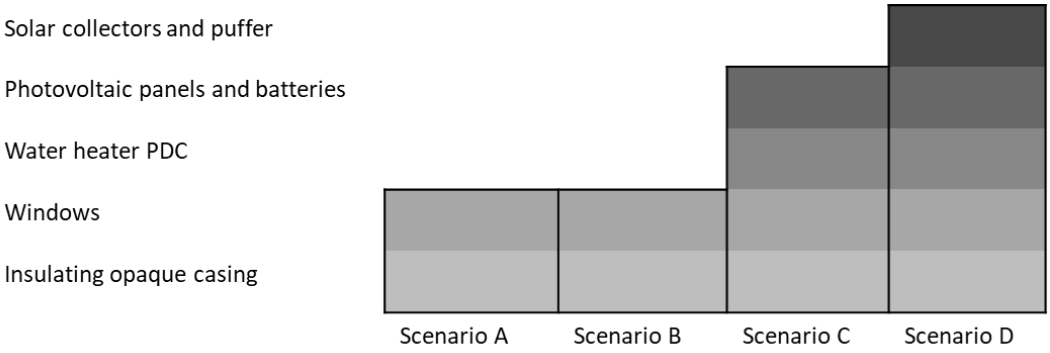

Figure 8. Summary of the interventions included in each scenario (source: authors' elaboration starting from [26]).

Since scenario A, as designed, would not allow access to SB, it was decided to not consider it in the subsequent analysis. Scenario B is, therefore, the one that contains the minimum mix of interventions to guarantee a jump of two energy classes for the building and, therefore, access to SB.

Based on this consideration, the economic tests only covered scenarios B-C-D and were organized into different sub-scenarios according to the different assumptions made (Figure 9), but in any case, the point of view remains for the owner of the typical real estate unit (with an average cut-off of 85 m^2).

Sub-scenario	HP.1	HP.2	HP.3	HP.4
Ss.1	100% Equity	No	No	No
Ss.2	100% Debt	No	No	No
Ss.3	100% Debt	Yes: TARI IMU	Yes	No
Ss.4	100% Debt	Yes: TARI IMU	Yes	Yes
Ss.5	100% Debt	Yes: IMU	No	No
Ss.6	100% Debt	Yes (50%): TARI IMU	Yes (50%)	No

Figure 9. Summary of the assumptions underlying each scenario (source: authors' elaboration).

For sub-scenarios 1-2-3-4, it was assumed that the typical dwelling was used exclusively by the owners as a second home, while for sub-scenario 5, the opposite hypothesis was made, i.e., that the dwelling was rented out year round, and finally with sub-scenario 6, a "compromise" hypothesis was analyzed, in which the dwelling was used for half the year by the owners and was rented out as a "holiday home" for the other half.

The economic analyses reported in the "results" section, as mentioned, vary according to the different assumptions, specifically:

- HP.1 determines whether the capital used to carry out the interventions is all from the owner (equity) or the loan (debt); in the latter case, the interest on the debt incurred with a possible credit institution must be taken into account;
- With Hp.2, taxes were taken into account (or not); in particular, the waste tax (in Italy "TAssa sui RIfiuti: TARI") relating to waste management and intended to finance the costs of waste collection and disposal services, borne by the tenant, and a direct tax

of a patrimonial nature, borne by the owner, which in Italy is known as the "Imposta MUnicipale propria" (IMU);

- With Hp.3, the condominium management costs have been considered, i.e., only those dependent on the common parts and thus not related to the consumption of the individual users of the various building units; these costs have been considered to be zero if the building unit is fully rented, if it is used as a second home continuously, or 50% rented for half a year;
- Hp.4 considered the increase in market value resulting from the energy efficiency operation, which is assimilated to an extraordinary maintenance operation; the percentage of increase was considered to be 25% [13] compared to the market value prior to the operation.

Finally, it should be noted that for each sub-scenario of each scenario analyzed, different conveniences were calculated depending on whether the owner decided to take advantage of DD, CT, or ID. Thus, specifically, 36 analyses were conducted (Figure 10).

Scenario	Sub-scenary	Alternatives
A	[-]	[-]
B	Ss1;	Ss1-DI; Ss1-SF; Ss1-CC;
	Ss2;	Ss2-DI; Ss2-SF; Ss2-CC;
	Ss3;	Ss3-DI; Ss3-SF; Ss3-CC;
	Ss4;	Ss4-DI; Ss4-SF; Ss4-CC;
	Ss5;	Ss5-DI; Ss5-SF; Ss5-CC;
	Ss6	Ss6-DI; Ss6-SF; Ss6-CC;
C	Ss3;	Ss3-DI; Ss3-SF; Ss3-CC;
	Ss5;	Ss5-DI; Ss5-SF; Ss5-CC;
	Ss6	Ss6-DI; Ss6-SF; Ss6-CC;
D	Ss3;	Ss3-DI; Ss3-SF; Ss3-CC;
	Ss5;	Ss5-DI; Ss5-SF; Ss5-CC;
	Ss6	Ss6-DI; Ss6-SF; Ss6-CC;

Figure 10. Framework of the alternatives analyzed for each sub-scenario (source: authors' elaboration).

The following section shows the results obtained, in terms of the internal rate of return (IRR) for the various sub-scenarios.

3. Results and Discussion

Below are the results obtained from the various processes (Figure 11).

As can be seen in Figure 11, the best investment hypothesis is definitely that of using only the owner's capital (Ss1), thus avoiding the payment of interest expenses required by a loan. In this hypothesis, there are all positive returns, demonstrating that the SB instrument is efficient and, above all, that one achieves returns on the investment in only 5 years or less. The best mechanism for taking advantage of SB is the assignment of credit, which shows the highest profitability because it allows the investment to be returned in the first year even though the final refund is less than 110% (in the calculations, the assignment to a local bank was hypothesized, which disburses 92.7% of the accrued credit to the assignee).

Comparing hypotheses Ss2 and Ss3, it can be seen that with the same initial conditions (100% financed), introducing the fixed costs (IMU, TARI, and the running costs of the condominium) in the hands of the owner leads to negative results in Ss3. This behavior is due to the non-influence of the proposed interventions on fixed costs such as IMU TARI, and condominium management. This analysis, however, is a short-term (5 years) view of the SB benefit, because if counted over the long term, the results would be much better.

SCENARIO	MODALITIES	Ss1	Ss2	Ss3
		IRR	IRR	IRR
B:	(DD)	15.29%	7.25%	*
	(ID)	23.85%	15.37%	*
	(CT)	85.91%	73.81%	*
C:	(DD)			*
	(ID)			*
	(CT)			*
D:	(DD)			*
	(ID)			*
	(CT)			*

SCENARIO	MODALITIES	Ss4	Ss5	Ss6
		IRR	IRR	IRR
B:	(DD)	26.87%	41.58%	9.94%
	(ID)	33.96%	70.15%	18.02%
	(CT)	45.50%	228.30%	42.82%
C:	(DD)		33.82%	3.40%
	(ID)		53.39%	6.95%
	(CT)		117.22%	9.10%
D:	(DD)		24.96%	2.08%
	(ID)		40.54%	4.82%
	(CT)		92.24%	3.76%

Legend: * Invalid/negative values

Figure 11. Summary of the results obtained from the analysis carried out (source: authors' elaboration).

The results of the more realistic approach (Ss4), taking into account the increase in market value, were also reported, and the results were significantly better than the previous ones (Ss2–Ss3). However, a comparison with Ss1 shows that the profitability for DD and ID increases, while for CT it decreases. This trend shows that CT has a positive effect in the short term, given the repayment in the first year, but in the long term (also taking into account the increase in the real estate value of the asset) it is an instrument that penalizes the profitability of the transaction (as there is a final repayment of less than 110%).

Maximum profitability was assessed between scenarios B-C-D in the following three modes: counting the fixed costs of ownership (Ss3), partially leased (Ss6), and fully leased (Ss5). As was to be expected, hypothesis (Ss3) reports all negative results for all scenarios, while switching to modes (Ss5) and (Ss6) shows a gradual improvement in affordability. Hypothesis (Ss5) achieves IRR values above 100 percent, confirming that maximizing the benefit created by SB by leasing is a winning action, both because tenants are left with the management and TARI costs and because they enjoy the increase in value, which implicitly increases the rent.

An important aspect to keep in mind is that all calculations were made over a very short time span (5 years: the duration of the Superbonus incentive disbursement) but the benefits, such as savings on heating and domestic hot water production, last over time. If

the investment were analyzed over several years, there would certainly be a positive return in all modes of access to the 110% Superbonus.

The tax incentive put in place by the Superbonus offers unprecedented possibilities because it allows a tax deduction of 110% on the basis of the expenditure incurred in a very short time and also allows all people with little tax capacity or even incapacity to benefit. This bonus is definitely worth considering, especially in cases such as the one analyzed, where one has a property that is not attractive on the real estate market and needs renovation.

4. Conclusions

The high convenience of the measure, in all its forms, suggests the following considerations. As expected, credit assignment is—of the three measures—the one that has the most obvious impact on the convenience of owners. At the moment, due precisely to this extreme attractiveness, the large number of requests for credit assignments has frozen the market, slowing down procedures and creating uncertainty for owners and traders. Consequently, the regulatory situation has changed.

As a result, the regulatory situation was changed. With the Budget Law of 2023 [27], the incentive rate (initially 110%) was redefined and modulated differently depending on a number of factors including the type of buildings on which the interventions were applied, compliance with the time limits imposed for the submission of building permits and, in some cases, the income of the property owners. The same law also partially ended the mechanism of credit assignment and invoice discounting. In fact, as of 17 February 2023, for interventions of building heritage rehabilitation, energy efficiency, seismic improvement, facade rehabilitation or restoration, installation of photovoltaic systems, and installation of charging stations, it will only be possible to access the mechanism of direct deduction. However, the other mechanisms, i.e., invoice rebate and credit assignment, remain possible for certain types of buildings provided that, for them, the application for the acquisition of the authorization title has been submitted by 17 February 2023 and, in the case of blocks, the resolution of the condominium assembly also exists.

Recognizing the effectiveness of the legislative instrument (verified in terms of the number of interventions [28]), we believe it is meaningful to reduce the incentive rate under the measure; in fact, going from the 110% rate to 90% (and in some cases even lower) will, in our opinion, have multiple benefits. First, the beneficiary (owner) will be "empowered" and will be more judicious in choosing which interventions to carry out, reducing them to a minimum and thus identifying only those that are really necessary. In fact, for example, there will no longer be any replacement of already high-performing shutters (e.g., with double glazing) with others that are a little better (e.g., triple glazing) because this would correspond to a waste of money in the face of a very low return from an energy point of view. Secondly, precisely because the beneficiary will have to contribute using their own capital, it will be enticing to carry out more market research, thus identifying economic operators who, under the same conditions required, offer the best price for the performance of their services. These two factors will cascade a series of improvements at the macro level. The market should return to a situation of normality, in which, thanks to healthy competition, the value of interventions will once again become fair, waste (the example of windows and doors made earlier) will decrease, and the demand for building materials will decrease and thus, with the same materials produced, their price will be lowered until it returns to a sustainable situation.

It is also believed that by directly involving the capital of those wishing to access the incentive, the risk of related fraud will also decrease, and it will then be possible to reopen the channel of credit assignment (and invoice discounting), perhaps opening up the possibility of credit securitization which, in the face of a "healthy" mechanism, will be sustainable.

However, special attention will have to continue to be paid to private convenience, which should never fall below acceptable levels; this would allow, with more simplified

rules, extending the number of applications and aiming for the 2035 target that does not seem so easily attainable now.

Author Contributions: Conceptualization, M.R.; methodology, M.R. and U.M.; validation, M.R.; formal analysis, A.G.; investigation, A.G.; data curation, A.G. and U.M.; writing—original draft preparation, A.G. and U.M.; writing—review and editing, U.M.; visualization, M.R.; supervision, M.R. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Conflicts of Interest: The authors declare no conflict of interest.

References

1. European Commission. Causes of Climate Change. Available online: https://ec.europa.eu/clima/change/causes_en (accessed on 6 April 2023).
2. Mecca, U.; Moglia, G.; Prizzon, F.; Rebaudengo, M. Strategies for buildings energy efficiency in Italy: Financial impact of Superbonus 2020. In Proceedings of the 20th International Multidisciplinary Scientific GeoConference SGEM 2020, Albena, Bulgaria, 18–24 August 2020; SGEM: Sofia, Bulgaria, 2020; Volume 20. Fasc. 6.2. [CrossRef]
3. Intergovernmental Panel on Climate Change (IPCC). Global Warming of 1.5 °C. Available online: https://www.ipcc.ch/sr15/ (accessed on 6 April 2023).
4. Gotta, A.; Mecca, U.; Rebaudengo, M. "Fit to 55": Financial Impacts of Italian Incentive Measures for the Efficiency of the Building Stock and the Revitalization of Fragile Areas. In *New Metropolitan Perspectives*; Calabrò, F., Della Spina, L., Piñeira Mantiñán, M.J., Eds.; NMP 2022; Springer: Cham, Switzerland, 2022; Lecture Notes in Networks and Systems; Volume 482 LNNS, pp. 201–210. [CrossRef]
5. European Commission. A European Green Deal. Available online: https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_it (accessed on 6 April 2023).
6. Manzone, F.; Rebaudengo, M.; Zaccaro, V.L. The Italian response to sustainability in built environment: The match between law and technical assessment. In *Advances in Intelligent Systems and Computing*; Springer: Singapore, 2019; Volume 797, pp. 527–537. [CrossRef]
7. Mecca, U.; Piantanida, P.; Rebaudengo, M.; Vottari, A. Green perspectives for Italian buildings facades. In *International Multidisciplinary Scientific GeoConference Surveying Geology and Mining Ecology Management*; SGEM: Sofia, Bulgaria, 2019; Volume 19, Fasc. 6.3. [CrossRef]
8. Mecca, B.; Lami, I.M. The appraisal challenge in cultural urban regeneration: An evaluation proposal. In *Abandoned Buildings in Contemporary Cities: Smart Conditions for Actions. Smart Innovation, Systems and Technologies*; Lami, I.M., Ed.; Springer: Cham, Switzerland, 2020; Volume 168. [CrossRef]
9. European Commission. In Focus: Energy Efficiency in Buildings. Available online: https://commission.europa.eu/news/focus-energy-efficiency-buildings-2020-02-17_en (accessed on 6 April 2023).
10. European Commission. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. A Renovation Wave for Europe—Greening Our Buildings, Creating Jobs, Improving Lives. 2020. Available online: https://eur-lex.europa.eu/resource.html?uri=cellar:0638aa1d-0f02-11eb-bc07-01aa75ed71a1.0003.02/DOC_1&format=PDF (accessed on 6 April 2023).
11. Agenzia Nazionale per le Nuove Tecnologie, l'Energia e lo Sviluppo Economico Sostenibile (ENEA). Energy Efficiency and the Use of Renewables in Existing Buildings. 2020. Available online: https://cdn.qualenergia.it/wp-content/uploads/2020/10/report_detrazioni_2020.pdf (accessed on 6 April 2023).
12. Agenzia Entrate. Superbonus 110%. Available online: https://www.agenziaentrate.gov.it/portale/superbonus-110%25 (accessed on 6 April 2023).
13. Mecca, U.; Moglia, G.; Piantanida, P.; Prizzon, F.; Rebaudengo, M.; Vottari, A. How Energy Retrofit Maintenance Affects Residential Buildings Market Value? *Sustainability* **2020**, *12*, 5213. [CrossRef]
14. Servizio Studi—Dipartimento Ambiente. Il Recupero e la Riqualificazione Energetica del Patrimonio Edilizio: Una Stima Dell'impatto delle Misure di Incentivazione. 2020. Available online: http://documenti.camera.it/leg18/dossier/testi/am0036b.htm?_1613488926013 (accessed on 6 April 2023).
15. Decree-Law No. 63 of 4 June 2013. Disposizioni Urgenti per il Recepimento della Direttiva 2010/31/UE del Parlamento Europeo e del Consiglio del 19 Maggio 2010, sulla Prestazione Energetica Nell'edilizia per la Definizione delle Procedure D'infrazione Avviate dalla Commissione Europea, Nonche' ALTRE disposizioni in MATERIA di Coesione Sociale. Available online: https://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:decreto.legge:2013-06-04;63 (accessed on 6 April 2023).
16. Decree-Law No. 34 of 19 May 2020. Misure Urgenti in Materia di Salute, Sostegno al Lavoro e All'economia, Nonche' di Politiche Sociali Connesse All'emergenza Epidemiologica da COVID-19. Available online: https://www.gazzettaufficiale.it/eli/id/2020/05/19/20G00052/sg (accessed on 6 April 2023).
17. Sole 24 Ore—Real Estate—Residenziale. Compravendite, 6 Immobili su 10 sono in Classe G. Available online: https://www.ilsole24ore.com/art/compravendite-6-immobili-10-sono-classe-g-AE1bVxDD?refresh_ce=1 (accessed on 6 April 2023).

18. Camera dei Deputati. Il Superbonus Edilizia al 110 per Cento—Aggiornamento al Decreto-Legge 21 Giugno 2022, n. 73. 2022. Available online: https://documenti.camera.it/Leg18/Dossier/Pdf/FI0136.Pdf (accessed on 6 April 2023).
19. Agenzia Entrate. Imposte sui Redditi (Irpef, Ires)—Che Cos'è. Available online: https://www.agenziaentrate.gov.it/portale/schede/pagamenti/imposte-sui-redditi/cosa-imposte-sui-redditi (accessed on 6 April 2023).
20. Agenzia Entrate. Superbonus 110%. 2022. Available online: https://www.agenziaentrate.gov.it/portale/documents/20143/233439/Guida_Superbonus_110_2022.pdf/21e9100a-9d7e-f582-4f76-2edcf1797e99 (accessed on 6 April 2023).
21. Knowlton, L.W.; Philips, C.C. *The Logic Model Guidebook—Better Strategies for Great Results*, 2nd ed.; Thousand Oaks: London, UK, 2012.
22. Grosso, R.; Prizzon, F.; Rebaudengo, M. La valutazione dell'impatto del metodo anti turbativa nei contratti pubblici: Le aggiudicazioni di lavori, servizi e forniture in Piemonte. *Valori Valutazioni* **2019**, *22*, 19–33.
23. Focus. Come Andavano in Vacanza i Nostri Nonni? Available online: https://www.focus.it/cultura/storia/come-andavano-in-vacanza-i-nostri-nonni (accessed on 6 April 2023).
24. Domus. Le Case per le Vacanze Degli Anni Sessanta, Dall'archivio di Domus. Available online: https://www.domusweb.it/it/architettura/2020/07/14/le-case-per-le-vacanze-degli-anni-sessanta-dallarchivio-di-domus.html (accessed on 6 April 2023).
25. L'Economia. Gli italiani e la Pandemia. 2020. Available online: https://www.inu.it/wp-content/uploads/economia-seconde-case-16-novembre-2020.pdf (accessed on 6 April 2023).
26. Gotta, A. Riqualificazione di un Complesso Anni '60 a Sampeyre Come Nuovo Modello di Residenza—Studio di Applicabilità Superbonus 110% = Rehabilitation of a 1960s Complex in Sampeyre as a New Model of Residence—Study of Superbonus 110%. Master's Thesis, Politecnico di Torino, Turin, Italy, 2020.
27. Law No. 197 of 22 December 2022 (Italian Budget Law 2023). Bilancio di Previsione Dello Stato per L'anno Finanziario 2023 e Bilancio Pluriennale per il Triennio 2023–2025. Available online: https://www.gazzettaufficiale.it/eli/id/2022/12/29/22G00211/sg. (accessed on 6 April 2023).
28. ANCE—Direzione Studi, Osservatorio Congiunturale Sull'industria delle Costruzioni; Ottobre 2022. Available online: https://ance.it/2022/10/osservatorio-congiunturale-edilizia-boom-2022-ma-nel-2023-torna-il-segno-meno/ (accessed on 6 April 2023).