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Leveraging energy efficiency to finance public-private social housing projects

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HIGHLIGHTS

- In Italy, the provision of affordable dwellings was disregarded for years.
- Recently, instead, social housing has come back to be among the main agenda items.
- Latest regulations try to tie together social housing and Public-Private Partnership.
- Social tenants may be asked to pay more than in protected and regulated tenancies.
- Energy-efficient measures allow keeping the tenants neutral about the rent increase.

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ABSTRACT

The Italian housing model relies on a high rate of privately owned houses. In comparison, few dwellings are built and managed by the public sector. The social housing stock has been built mainly during some post-second world war decades; instead, since the early nineties, it underwent a privatization process.

Such a model is inefficient and iniquitous in the long run. Therefore, after being disregarded for several years, social housing has gone back to be among the main agenda items. Nonetheless, due to the lack of public grants, new funding sources are required. The government now fosters an increasing involvement of private finance through Public-Private Partnership schemes.

A first outcome can be found in some pioneering experiences. Their comparative analysis allows bringing out worthwhile findings, which are useful to steer housing policies. Moderate to low yields entail the need to involve new kinds of private entities, particularly those adopting a venture philanthropy approach. Meanwhile, building energy performance measures are a crucial driver of feasibility. They allow the tenants to be willing to pay agreed rents somehow higher than both social rents of protected tenancies and fair rents of regulated tenancies.

1. Introduction

1.1. The European policy on building energy performance

During the time span of the last forty years, we may observe a significant shift in the underlying reasons that push the building energy policy, as well as in the tools it makes available. The earliest regulations date back to the second half of the seventies and were aimed at reducing consumption being directly inspired by the oil shocks of that time. In Western Europe, some instances are represented by the Law 373/1976 in Italy (Copiello, 2015), the law on energy saving of 1976 and the ordinance on the heat insulation of 1977 in Germany (Wagner and Lützkendorf, 2013), and the building code on energy requirements of 1979 in Denmark (Tommerup and Svendsen, 2006). Instead, starting at least from the nineties, the energy standards grounds their roots in the increasing commitment to reducing the greenhouse-gas emission (Erdogdu, 2010). More recently, national regulations implemented by the EU member states complies with the common energy policy. Among the acts that mostly contribute to shape the current legal framework, two are noteworthy. The former is the Directive 2010/31/EU, which stems from the recast of the previous 2002/91/EC. It promotes a set of measures aimed at improving the energy features of existing buildings and new constructions. The action fields vary from minimum requirements both for the buildings (s. 6, 7) and their technical systems (s. 8), up to the setting of methodologies to assess the cost-optimal level of energy-efficient solutions (s. 3, 5). Additional tools are the energy performance certificates (s. 11), to be issued when buildings are realized, sold and rented (s. 12). Another act worth to mention is the Directive 2012/27/EU on energy efficiency. As far as this study is concerned,

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the following excerpts deserve to be quoted. The first relates to the promotion of "a long-term strategy for mobilising investment in the renovation of the national stock of … buildings, both public and private" (s. 4). The second recommends the adoption of "appropriate measures to remove … barriers to energy efficiency …, in particular as regards: … the split of incentives between the owner and the tenant of a building" (s. 19).

The interest of the European energy policy in buildings springs from their prominent role in contributing substantially to both energy use and greenhouse-gas production. According to Eurostat (2011), residential and tertiary construction is responsible for some 36% of the consumptions and about 40% of the emissions. The commitment to improving the building performance further depends on the fact that constructions are foreseen to follow a growth path in the coming years. For instance, in Europe, the floor area for residential use is expected to scale up to more than 25 million square meters by the year 2050, relative to some 20 million square meters in 2010 (IEA, 2013). Other concerns arise from the growing age of the building stock (IEA, 2013), due to the unsatisfactory average renovation rate, from about 1% to no more than 1.8% each year (Petersdorff et al., 2004; Lechtenböhmer et al., 2009).

1.2. The Italian affordable housing sector

The Italian housing model traditionally relies on a high rate of privately owned dwellings. As reported by the National Institute of Statistics, the amount of owner-occupied dwellings were 40% in 1951, grown up to 51% in 1971, and further increased to 59% in 1981. They became close to 70% by the early nineties (Padovani, 1996), and reached 80% – considering all types of housing tenure other than tenancy – just before the real estate market crisis (Istat, 2007).

The public housing stock in Italy was built mainly during few post-second world war decades (Pogliani, 2013). Initially, during the fifties, the so-called INA house plan – the acronym stands for Istituto Nazionale delle Assicurazioni, the former National Insurance Institute – led to build some hundred thousand dwellings, arranged in new rational settlements, in such a manner to leave a well distinguishable mark in the suburbs of many cities across the country. Subsequently, during the sixties and the seventies, the GesCaL compulsory levy – the acronym refers to Workers' Housing Management fund – has been introduced into the legal system in order to build other thousands of flats. Meanwhile, also IACP – Council Housing Institutes established on a local basis – provided a contribution since they built and managed additional public housing settlements.

Despite the effort made over the time span from the fifties to the early seventies, the size of the social housing (SH hereinafter) stock was rather small in comparison to the private housing sector and remained mostly unchanged due to several selling programs (Padovani, 1996). Moreover, a major privatization process was implemented later during the nineties, aiming to divest approximately half the stock of public dwellings (Balchin, 1996) and to achieve savings in government expenditure by cutting public investment. Severe reductions in central government funding, particularly those intended to Municipalities and Council Housing Institutes, led SH system close to collapse (Baldini and Poggio, 2013). The production fell from more than 30 thousand dwellings per annum during the middle eighties to less than 2 thousand units about twenty years later (Boeri et al., 2011). Some statistical surveys confirm the residual role of the sector: fluctuating from 5% to 6% of the whole stock of dwellings during the eighties and the nineties, then shortened to 4% in 2008, far lower than many other Western European nations (Federcasa, 2006; Dol and Haffner, 2010).

For almost two decades, the housing issue was neglected, leaving the task of providing affordable dwellings to cooperative companies, and favoring the further increase of ownership rate (Pogliani, 2013). Nevertheless, the economic crisis ongoing since 2007–08 has highlighted that the above-mentioned housing model is inefficient and iniquitous in the long run. Indeed, it inhibits the labor factor mobility (Maclennan et al., 1998; Gibb, 2002), and it does not fulfill the needs of the emerging middle-income classes such as elderly, young couples, divorcees, posted workers, and immigrants. All this leads to the paradox that a large unsold stock of houses coexists with a growing housing exclusion phenomenon (Boeri et al., 2011). Therefore, SH has gone back to be, once more, among the main agenda items. Near the end of the last decade, the Government has promoted a renewed program (Law 133/2008, s. 11). Due to the paucity of public grants, it fosters the involvement of private funds and entrepreneurial skills through Public-Private Partnerships (PPPs), following a path common to other EU countries (Phibbs, 2012). The program relies on a system of property investment funds, whose shares shall be held by private-equity investors, lending institutions, and institutional investors, such as Deposit and Loan Fund or sovereign funds. Several Municipalities and other private stakeholders are bringing into being pioneering experiences (Baldini and Poggio, 2013). Furthermore, the opportunity to resort to PPP in order to secure the provision of affordable housing is suggested also by national associations (Federcasa, 2014; Unioncamere, 2014) as well as by international institutions (UN-Habitat, 2011).

1.3. The role of energy market and its players in public-private social housing projects

Even recently, some studies suggested to exploiting energy efficiency with the aim of supporting PPP SH projects (Federcasa, 2014; Enea, 2015; see also the European project Elih-Med at http://www.elih-med.eu). On closer inspection, this idea is not novel at all (Diamond et al., 1992; Brinch et al., 1996). The scheme in Fig. 1 summarizes a comprehensive model, according to current Italian regulation, and highlights the role played by the energy market and its players in determining the viability of projects. To this end, we should focus not only on the participants but also on the flows of resources among them. High-performance buildings, which are better than the conventional ones, may entail the need to bear additional upfront and recurring costs (Fig. 1, flow *a*; Dwaikat and Ali, 2015). The same choices may lead to a price or rent premium (flow *b*), so outperforming the average market values (Bio

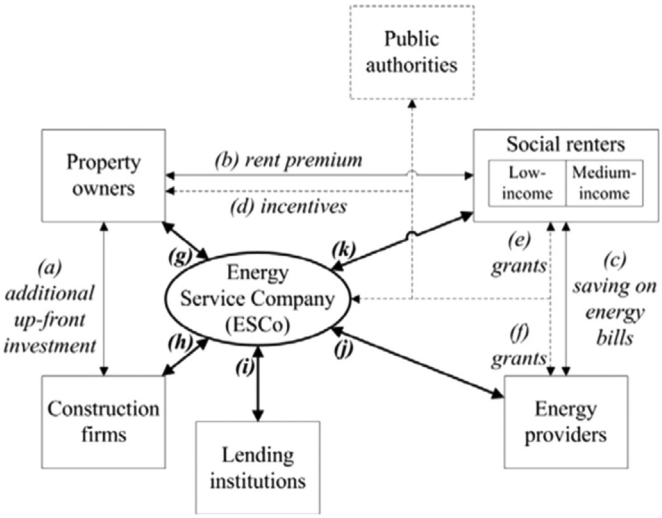

Fig. 1. Arrangement model of public-private social housing projects.