EQUITY IN REAL PROPERTY TAXATION THROUGH THE REVALUATION OF BASE VALUES

Chiara Agnoletti, Chiara Bocci, Claudia Ferretti, Patrizia Lattarulo

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1. This work faces the Cadastral Reform that is to be adopted in Italy in the next years;

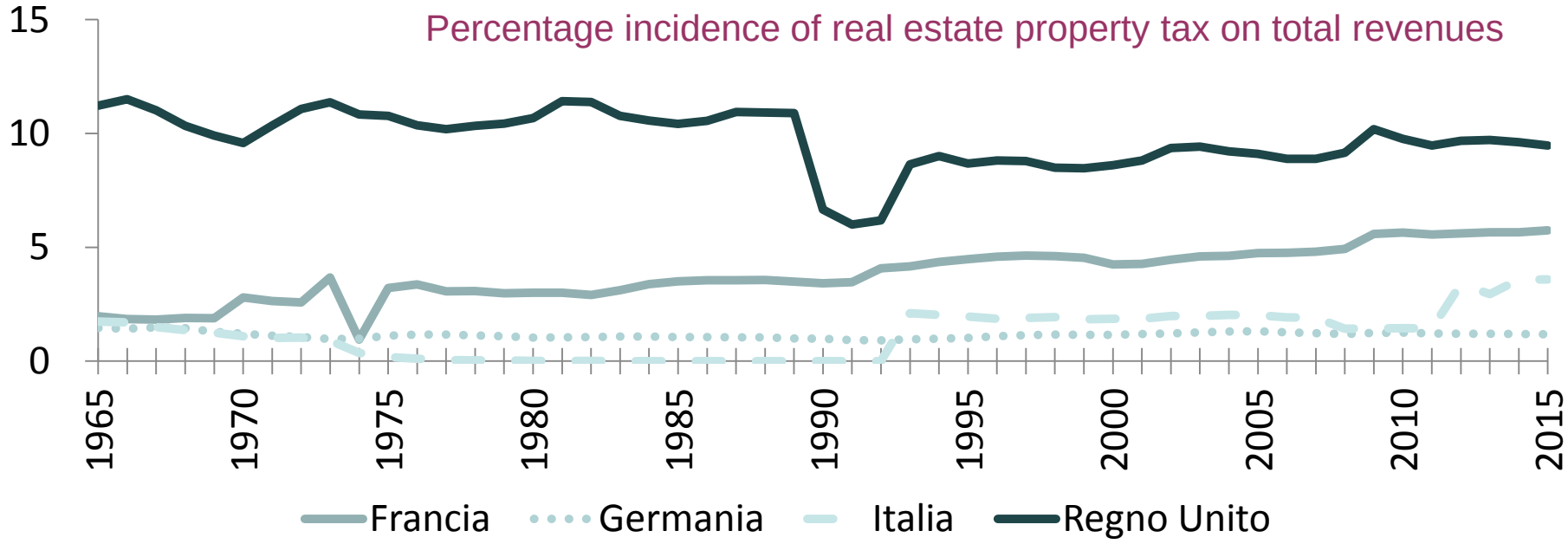
2. In particular, this work estimates the possible tax-revenue and distributive effects deriving from the revaluation of the real estate values on which taxation is based;

3. Following the regulatory guidelines, we will compare for each Italian municipality the cadastral income before and after the reform;

4. Finally, to better understand the implications of the different distribution of the tax burden after the reform, we make a micro-simulation on every single property in the Tuscan region (6% of Italian population with 3.6 millions of inhabitants). The impacts of public policies in this area can be assessed through the information on real estate available from the Cadastral Registry.

Introduction

In many countries, the real estate property tax is the main source of revenue for local public authorities, whose same existence is supported by the "*benefit principle*", so that policies increasing the value of the tax base (a new city park, for example) represent a benefit for the owners.
Tax policy models may differ from country to country depending on the taxation level and composition.



Introduction

In Italy, the property taxation has been at the heart of policies for all the governments of different political orientations that have followed one another during the last decades. For example, in 2016 the Stability Law provided for the abolishment of the property tax on principal dwelling.

BUT, none of these governments has made any serious attempt to revise the cadastral values on which the tax is calculated. In Italy, just like in the other countries where the property tax has been introduced in relatively recent times, there is no system for the periodical revision of property values.

In 2012, to bring the cadastral value closer to the market price, the government provided for the revaluation of the cadastral incomes. This revaluation was uniform on all the territory but didn't correct inequalities of cadastral basis.

Introduction

A critical element of the property taxation in Italy is the benchmark value used to determine the levy amount, which is still today the cadastral value. The greatest limitation of this method is that, once fixed at the time of the first purchase contract, cadastral values are updated only by undifferentiated coefficients, and find themselves far behind the market values.

What is more, the resulting gap is not even uniform: the oldest buildings, located in the centres of the main urban areas, are usually at an advantage.

The gap between the tax base and the market value causes both horizontal and vertical inequity in taxation, in favour of certain areas and territories (where price variation is higher and property values more outdated, mainly urban areas and historical buildings).

The Inequity of the actual system (1)

In general the inequity of the taxation system is represented by the gap between the real value (mainly the market price, **MV**) and the assessed value (that is, in Italy, the cadastral value, **AV**) .

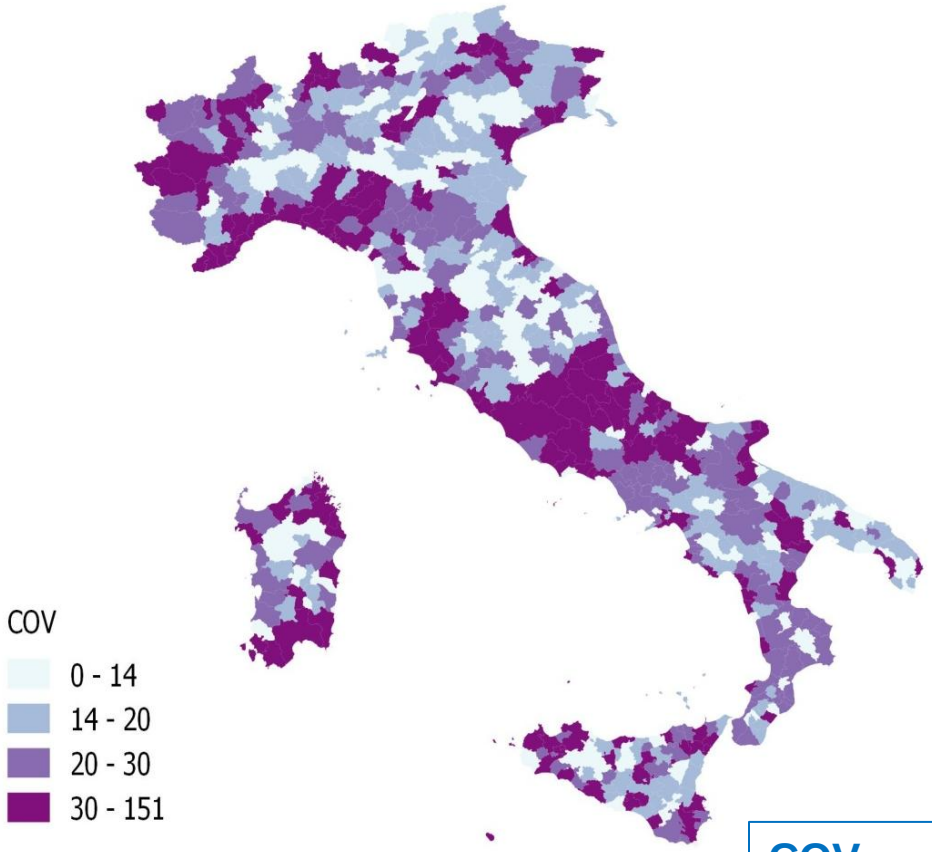
Equity, moreover, can be considered from two points of view (Paglin and Fogarty,1972)

- **Horizontal**: two properties with the same market value must also have the same cadastral value;
- **Vertical**: a property with a market value which is two times greater than the one of an other property must also have a double cadastral value.

Then, horizontal equity requires that the tax burden to be the same for all individuals who possess properties of equal value, while the vertical one requires the application of a higher tax to owners of properties with higher values.

The Inequity of the actual system (2)

Index of variability (COV) on the ratio between market and assessed values (***I***). Values for Local Labour System



Variation coefficients for Local Labour System (a sovra-municipal aggregation) show that the distance between market and assessed value is **highly unequal** within the different areas (Festa and Ghirlando, 2014) .

The urban areas
(Milano, Torino, Venezia, Roma…) and the **tourist resorts** shown a higher internal variability. In these areas there are both municipalities with high prices and low cadastral values and municipalities with more aligned values.

COV_{LLS} = (standard deviation (*I*) / mean (*I*) *100

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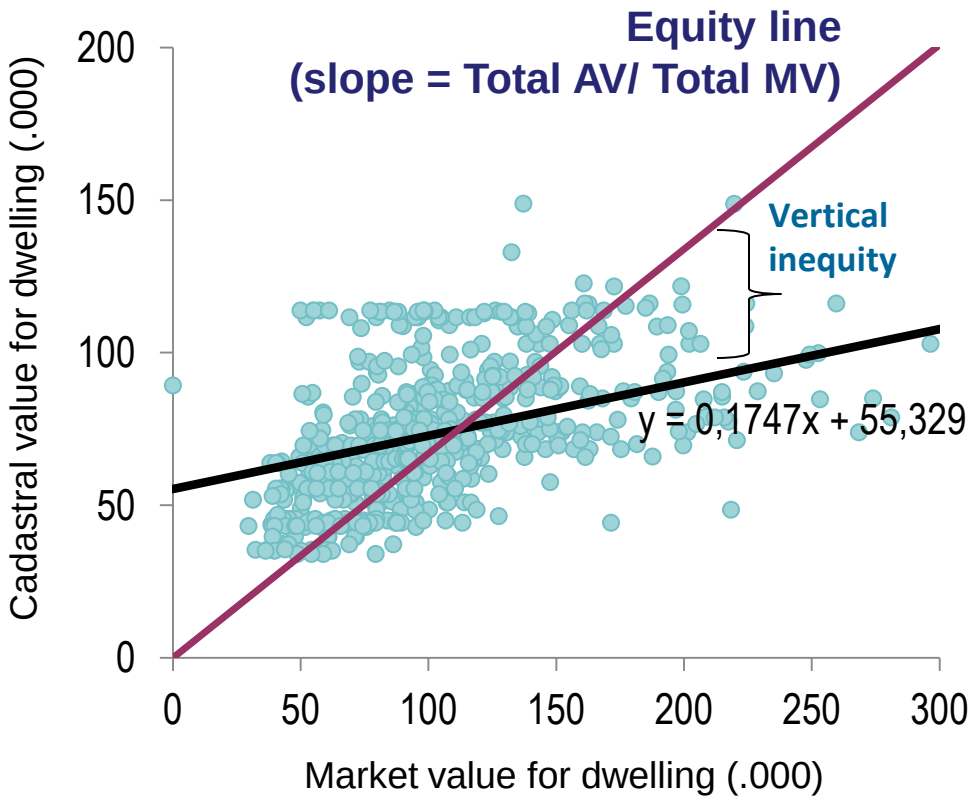
The Inequity of the actual system (3)

Let us approch the problem of inequity by first defining **perfect equity**. If the ratios of assessed value to market value are equal, no matter what the specific value of the ratio, then there would be no inequity (Paglin and Fogarty,1972)



Plot for Local Labour System.
The **red line** represents the perfect equity line, while the **black line** is the least squares regression line.

No horizontal equity: 2 areas with the same price do not have the same assessed value.
No vertical equity: cadastral values do not increase as much as the market values.

Some areas **benefit from the current taxation system** (low taxes and high prices).

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The cadastral Reform

The cadastral reform is an ambitious undertaking that will certainly take a long time

•The reform will change the method for measuring cadastral size, which will be based on square metres of floor area rather than number of rooms. In this respect, the new modality of calculation seems definitely more equitable.

•The cadastral income of a property will be determined on the basis of its category's market value, as reported by the Real Estate Market Observatory (OMI), to which a corrective factor is applied, related to location and specific construction features.

•The value thus obtained will then be multiplied by the floor area, and some reductions introduced, dependent on extraordinary maintenance, insurance and administrative expenses.

The new cadastral income

Current Cadastral income = n° rooms * first purchase contract estimate

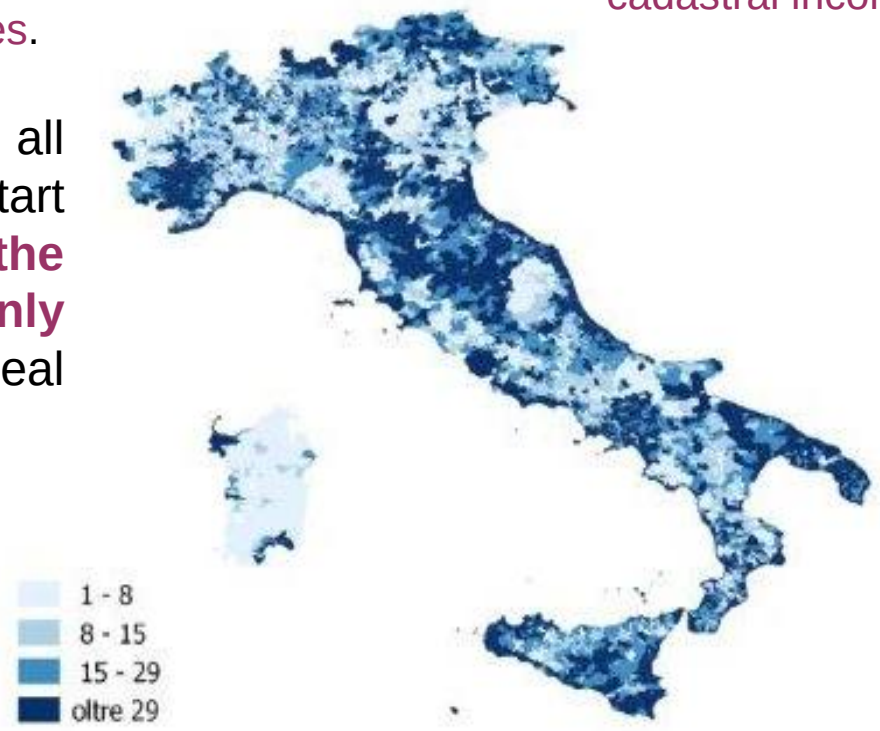
New Cadastral income = rent prices (mq) * floor area* M * C

where M is a corrective factor related to some reductions and C is a corrective factor related to location and other specific construction features.

While waiting for an accurate survey of all property units, our suggestion is to start with a first phase of the reform in which **the new cadastral income is calculated only from OMI data** (Observatory for Real Estate Market).

The blu areas (urban and tourist) will be more penalized by the revaluation (the new cadastral income is more than 29 times greater than the actual one).

Ratio between actual and post-reform cadastral income



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The critical issue of revenue neutrality

1. The increase of revenues produced by the reform will not be proportional to the increase of cadastral income. **The revision must necessarily be revenue-neutral**. Therefore, the reform will produce a reduction of the current rates in such a way to keep the total revenue unchanged.

2. However, although on the one hand the revenues from real property taxation must not increase, on the other hand the revision of cadastral income will probably lead to a **different distribution of the tax burden** for homeowners', which shall be proportional to the revaluation coefficients.

3. In order to better understand this particular implication of the reform, a simulation is carried out for Tuscany. We try to identify the **effects of cadastral reform** on property taxation for non-principal dwellings, under the assumption of revenue neutrality at a national level. To calculate the current tax base, we used data from the Cadastral Registry, while to determine the post-reform revenues we referred to the rental prices taken from the OMI (Observatory for real estate Market) database.

The new cadastral value

In particular, in the current situation the cadastral value for each dwelling is:

Current Cadastral value = current cadastral income * 160

Also for the post-reform cadastral value we have to use a multiplier because the new cadastral income is still distant from the market value.

BUT for the post-reform scenario we can use the same multiplier (160) because in this way the new tax base would be higher than the market price.

SO in order to determine the post-reform tax base, we have chosen to operate according to an inverse reasoning. In other words, we calculate the multiplier that minimizes vertical iniquity (in this case, multiplier = 58.4), the one that is able to bring the regression line closer to the perfect equity line.

Post reform Cadastral value = post reform cadastral income * 58,4

Results on tax burden (1)

The results show that the reform should lead to an average **increase of 112 Euros** per non-principal dwelling, corresponding to the **16% of total revenue**. Obviously, if the revenue-neutrality principle was not followed, the impact of reform would be even more substantial, since the post-reform property tax would be **seven** times greater than the current levied amount.

Pre and Post reform revenues.
Micro simulation on non-principal dwelling
Euros per dwelling

	Difference between pre and post-reform
Up to 1,000 inhab.	-53
1,001-2,000 inhab.	-50
2,001-3,000 inhab.	17
3,001-5,000 inhab.	-82
5,001-10,000 inhab.	-5
10,001-20,000 inhab.	78
20,001-60,000 inhab.	185
60,001-100,000 inhab.	116
Over 100,000 inhab.	297
TOTAL	**112**

On a territorial point of view, the reform will punish the taxpayers of the largest cities, further proving how the actual value of urban properties is very distant from their cadastral value. Conversely, in the smaller cities, where pre and post-reform taxable bases are less distant, we should find a reduction of real estate levies.

Results on tax burden (2)

Pre and post-reform revenue, non principal dwellings

Quintile of revenue's variation	Variations between pre-and post-reform revenue (Euros per dwelling)	% variations between pre-and post-reform revenue
1° quintile	-338	-51.8
2° quintile	-153	-27.3
3° quintile	-11	-1.7
4° quintile	112	16.5
5° quintile	374	49.6
Mean variation	112	16.4

The **40%** of Tuscan **municipalities** (in the first two quantiles of revenue's variation), will record a significant **reduction** of property tax revenue, respectively amounting to 52% and 27%, which corresponds to a decrease of **338** and **153** Euros.

An additional **40% of municipalities** (those falling in the fourth and fifth quantiles) will be hit by a considerable increase of average revenues; in this case, each non-principal dwelling will be taxed more than **374 Euros higher**, entailing a 50% increase of total revenue.

Only the remaining **20% of municipalities** will experience an unchanged property tax revenue.

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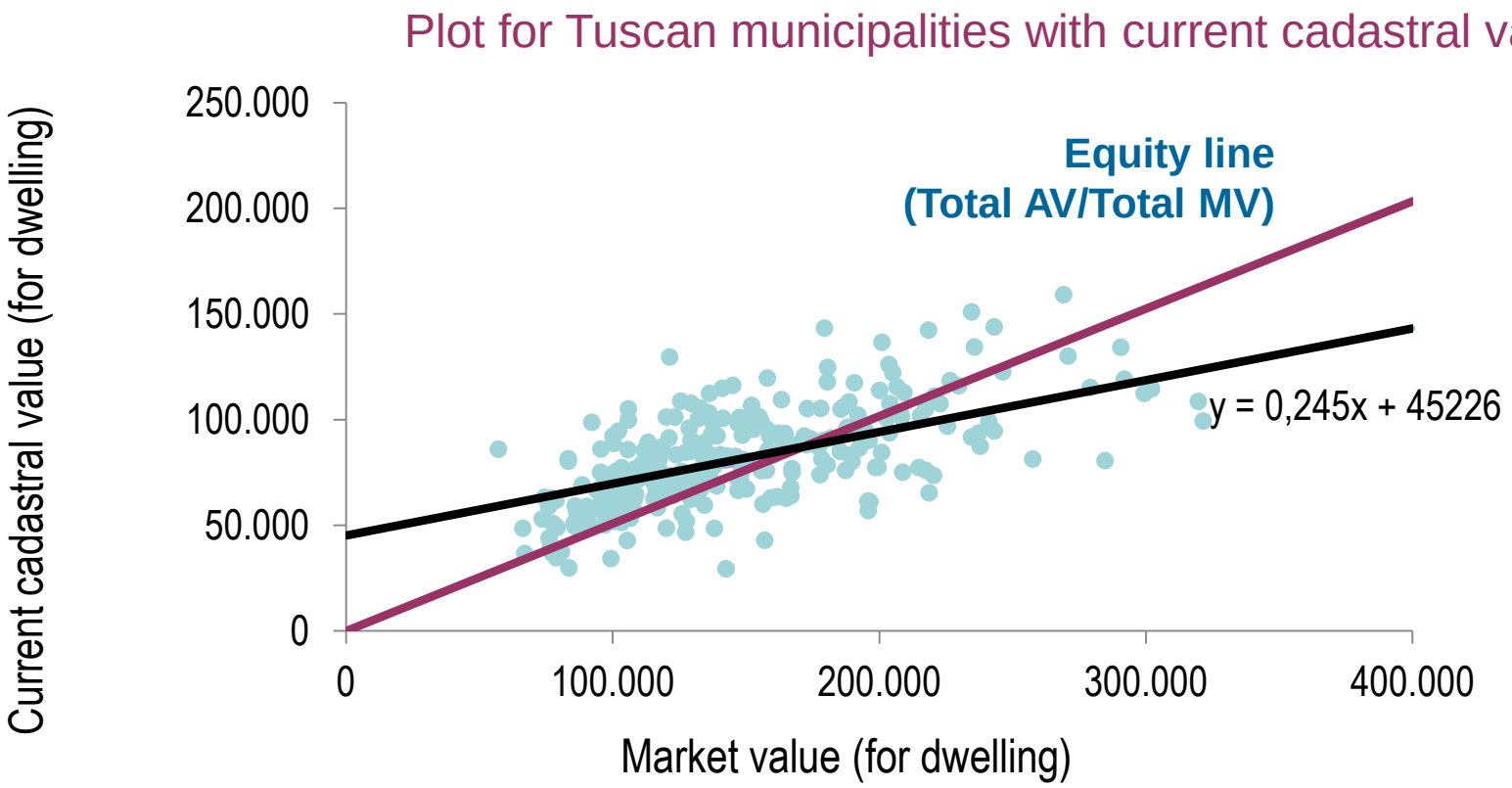
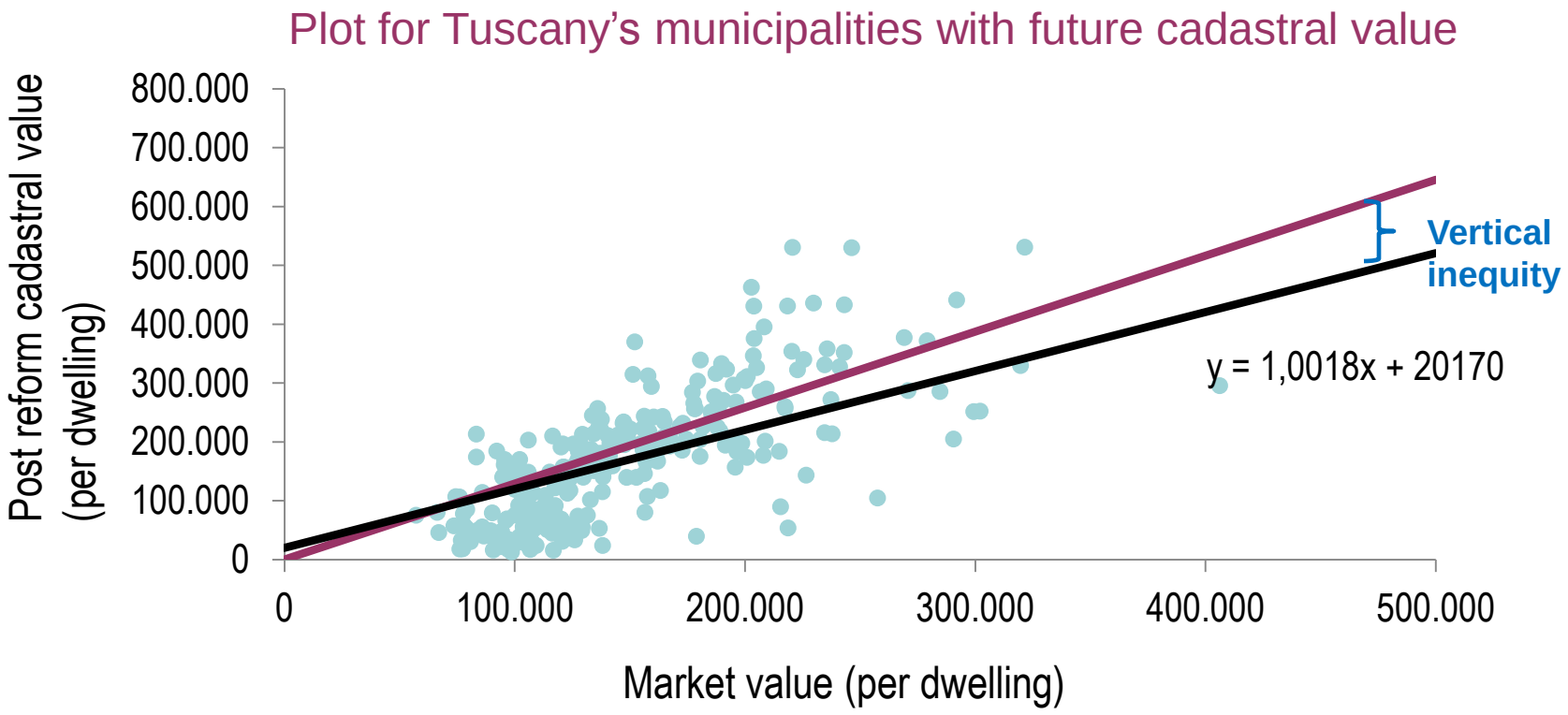
What about equity? (1)



No horizontal equity: 2 municipalities with the same price do not have the same assessed value.

No vertical equity: a municipality with a market value which is two times greater than the one of an other municipality do not have a double cadastral value.

What about equity? (2)



The first phase of the reform can reduces the vertical inequity, but a problem of horizontal equity still remains because, also in this case, 2 areas with the same price have different cadastral values. So some municipalities would still benefit from the new system of taxation (those below the black line)

Conclusions

The estimates made for Tuscany using cadastral data show that the revision of the tax base is the main tool towards a more equitable tax system, especially in a context of heavily changing trends in house prices (as during the real estate bubble). And:

• The different territorial distribution of tax bases reveals how the taxpayers living in reach urban areas will be the ones to bear the most considerable increases, a fact confirming that in these places the actual value of real estate is very far from the cadastral value.

• On the contrary, the homeowners in smaller outlying municipalities will experience a tax reduction, since their pre and post-reform tax bases are less distant. This category of owners will benefit from the effects of reform, since the tax burden on the houses situated in less dynamic real estate markets will be relieved.

• Under the correct assumptions is possible to image a first phase of the reform to realise in shorter time. The first phase assume the use of the Omi database and of a multiplier which minimizes the vertical inequity. In this case it will be possible to decrease a part of inequity, but to reduce also the reminder we must wait for the conclusion of the reform: in fact only with an accurate census of the dwellings it will be possible to take into account the differences between the various properties.

Thank you!

Results on cadastral income

Pre- and post-reform cadastral income of non-principal dwellings in Tuscan municipalities by population group (absolute and percentage values in Euros)

Population group	Post-reform cadastral income (A)	Pre-reform cadastral income (B)	A/B ratio (C=A/B)
Up to 5,000 inhab.	332,964,374	63,699,172	5.2
5,000-20,000 inhab.	1,025,458,735	165,698,586	6.2
20,000-100,000 inhab.	1,492,726,443	209,149,184	7.1
Over 1,000,000 ab	965,952,253	123,021,771	7.9
TOTAL	3,817,101,805	561,568,713	6.8

For non-principal dwellings, the simulation shows that the most consistent increases in the ratio between current and future income concern the **main urban areas**, leading to the conclusion that the current cadastral incomes are exceptionally distant from market values precisely in the highly populated residential areas.

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DA CAMBIARE

• Per valutare gli **effetti della nuova rendita sull'Imu** delle abitazioni non principali in Toscana, calcoliamo il gettito proveniente da questa tipologia di cespite all'aliquota standard dello 0,76%;

• Successivamente, per **imporre l'invarianza di gettito a livello nazionale**, si determina il rapporto tra la rendita italiane pre e post riforma (pari a 5,84) e si utilizza questo coefficiente per riproporzionare l'aliquota standard.

• A livello italiano, la rendita attuale viene calcolata a partire dai dati pubblicati dall'agenzia delle entrate ("Gli immobili in Italia"), mentre la rendita post riforma viene stimata a partire dai valori delle locazioni OMI (media dei dati osservati per zona) e applicando a questi la superficie complessiva delle abitazioni non principali;

• Applicando la nuova aliquota standard (pari a 0,13%) ai dati comunali toscani relativi alla nuova rendita (al netto delle spese per manutenzione straordinaria, etc) si può determinare il **gettito Imu standard post riforma per i Comuni toscani**, nell'ipotesi di invarianza di gettito nazionale.

EQUITÀ NELL'IMPOSIZIONE IMMOBILIARE ATTRAVERSO LA RIVALUTAZIONE DELLA RENDITA CATASTALE: IL CASO DELLA TOSCANA

Chiara Agnoletti, Chiara Bocci, Claudia Ferretti, Patrizia Lattarulo

IRPET - Istituto Regionale Programmazione Economica della Toscana

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