

Comparative Analysis of Land Value Capture Tools in Europe

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Abstract— Scarcity of financial resources is a problem across Europe. As countries and local authorities emerge from the economic and financial crisis, they have fewer resources to meet all their public obligations. This is why the COST 17125 project (Public Value Capture of Increasing Property Values) was set up, with the main objective of developing a common framework for value capture. Although a substantial database is available, it is not comparable due to differences. This paper attempts to compare Land Value Capture practices in 29 countries and draw conclusions.

Keywords— value capture, urban development, land management

I. INTRODUCTION

The main aim and objective of the project nr. CA17125 is the development of a common framework for value capturing and the provision of innovative tools for public value capture based on comparative analysis to optimize the allocation of development costs and benefits as well as to disencumber the public budget [1] [2] [3].

The fulfillment of the main goal is served by three tasks:

1. Develops a common understanding of public value capture through a thorough review of existing data and definitions from different research areas and countries.
2. Identifying research gaps and ensuring conditions for future research and cooperation.
3. Establish a permanent, Europe-wide network of land management experts to work with political and administrative stakeholders to exchange knowledge on public value capture and propose policy measures to improve public value capture [4] [5] [6] [7].

Currently 36 countries joint this COST Action (33 MC Members and 3 MC Observers). Hungary was among the Inclusiveness Target Countries (ITC), so Hungarian researchers also joined the Action. A prerequisite for research is that all participants understand each term in the same way. Therefore, the research adopted modified version of the Hendricks' system as a common basis. This classification distinguishes basically recurring and non-recurring forms of public value capture. Recurring forms are further differentiated in annual payments and payments in case of sale/purchase. Non-recurring forms are further differentiated in tools focussing on one factor of value increase and tools focusing on more than one factor [8] [9].

The countries were asked to describe the current PVC situation according to a template. The research methodology is discussed in the next chapter.

II. RESEARCH METHODOLOGY

Each country participating in the research has produced a national report, which explains the following topics:

- Local authorities and planning system
- Recurring forms of public value capture (annual payments): Real estate tax for buildings; Real estate tax for lands; Municipal/Communal tax
- Recurring forms (in case of sale/purchase): Real estate transfer tax; Capital gain tax
- Non-recurring forms (focussing on one factor of value increase): Fee for construction of infrastructure
- Non-recurring forms (focussing on more than one factor of value increase): Development according General Urban Planning Legislation; Development according Special Urban Planning; Cooperative development by urban contracts; Contract models

After explaining the above themes, the percentage of Public value capture observed in the different stages of development process had to be given. The numbers of the Hungarian report are shown in Table I.

TABLE I. PERCENTAGE OF PCV DEVELOPMENT SAGES

	Public	Private	Depending
Planning	0	50	50
Reallocation	0	50	50
Land for internal infrastructure	0	20	80
Construction of internal infrastructure	0	90	10
External infrastructure	0	100	0
Economic Development	20	80	0

As PVC in Hungary is limited to recurring forms, the Public column often contains a value of 0. Unfortunately, in many cases, development agreements are not publicly available, so the percentages are only approximate.

III. RESULTS

Principally, the situation about public value capture is subject to regional variations for two main reasons: the federal structure of administrative competences and responsibilities, and the economic differences. Public value capture is particularly current where there are high property values. Different categories were therefore introduced in the tables to take account of this problem. When creating the statistics for the national chapters, the problem arose that the term public value capture is not defined in many countries and does not play a role in the public discussion. Therefore, the different instruments have not yet been assigned to the factor of the value increase. The term public value capture is not defined in many countries (e.g. Hungary), therefore, the different instruments have not yet been assigned to the factor of the value increase.

TABLE II. PUBLIC VALUE CAPTURE INSTRUMENTS IN THE COUNTRIES

	Recurring forms		Non-recurring forms	
	Annual payments	In case of sale	Focusing on one factor	Focusing on more than one factor
Austria	4	4	4	2
Belgium	1; 2; 4	1; 4	1; 2	3
Bosnia	4; 1	1; 2	4	3; 1
Bulgaria	4	4	2	2
Croatia	1; 2; 4	1; 4	1; 2	0
Czechia	4	0	3	1
Estonia	4	4	3	3
Finland	4	4	1; 4	1; 4
France	1	1; 4	4	4; 2
Germany	4	4	4	3; 4
Greece	4	1; 4	1	3; 4
Hungary	3	4	1; 4	0
Israel	1	4	4	4
Italy	3	3; 4	0	4
Latvia	4	4	4; 2; 3	0
Lithuania	2	3	2	3
Malta	0	4	4	2
North-Macedonia	4	4	4	2
Norway	3; 4	4	3; 4	0
Poland	4	4	2	1
Portugal	4	4	2	1
Serbia	4	4	4	1
Slovakia	4	4	3; 4	1; 3
Slovenia	4	4	4	2
Sweden	4	4	1; 4	3; 4
Switzerland	4	3; 4	4	3; 4
Turkey	4	4	3; 4; 4; 2	3
Ukraine	4	4	0	0
United Kingdom	4	4	4	3; 4

Explanation: 0 – no instrument, 1 – instrument is used limited, 2- instrument is used rarely, 3 – instrument is used regular one part of the country, 4- instrument used regularly throughout the country.

The recurrent LVC distinguishes from non-recurrent LVC in who the payers are. Recurring LVC is mainly a tax for individuals, but the non-recurrent LVC is foremost paid by professionals. This difference is most likely the main reason why the recurring tax has a social profile in so many of the sample countries. As Table II. shows, the use of these tools varies widely between countries.

A. Recurring forms of public value capture

The non-recurrent land value instrument usually rests on increase in land value affected by specific interventions (e.g. investments, rezoning, delivery of planning permissions). Recurrent capture of value in land is contrary to this: it refers to systems that capture value partly indifferent to any increase in value and always independent on any explicit interventions that affect the value of the land. The recurrent instruments rest on different motivations.

Recurrent tools usually do not distinguish between the value of buildings from the value of the land. Recurrent value capture has significant similarities to taxes. Except from Croatia, Malta, all countries apply property tax based on annual payments in by any means possible. A few countries make a distinction between land and the buildings, although most countries tax the property including land and building.

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The property tax rate varies significantly between the countries. The Baltic countries charge the highest rate (Estonia 2.5%, Latvia 3%; Lithuania 4%). The rate of recurring property tax is dependent on annual payments according to the use of the property, the value, and its location.

Recurring income from property is revenue to the owner from capital that the owner has invested in property. The lower tax rate, 10% is in Bosnia Herzegovina. Countries with higher tax rates include Czechia (15%), Norway (22%), Italy (23-26%) and Israel (25%).

All countries in the survey except Croatia have a tax on the sale of property. That type of tax is the lowest in Malta (8%) and the highest in North Macedonia (70%). In North Macedonia, the tax applies only to households that have lived in the house for less than 3 years prior to the sale; in Austria, no tax is levied if the seller has lived in the house for more than 8 years. Germany, on the other hand, imposes a higher tax rate if the seller has sold more than three properties within the last five years. Obviously, countries design taxes to protect individual one-time sellers and tax professional dealers.

Transaction tax is also a commonly used type of tax. This tax has abolished in Czechia during the Covid-19 crisis, apparently to stimulate the markets. There are countries where transaction taxation is uniform. This group includes Bosnia Herzegovina, Croatia, Estonia, Finland, France, Greece, Norway, Poland, Slovenia, Turkey, and Hungary. Median rate is just above 2% of the purchase price. At the

lowest end is Ukraine with 1%, and at the higher end is Bosnia Herzegovina with 5%. The other group includes countries with differentiated rates of transaction tax. Austria, the United Kingdom, and Italy have a progressive tax rate. The tax rate is 1-2% for average properties, and 3-9% for luxury properties. Some countries also distinguish between kinds of buyers and the location of the property. Serbia relieves both first-time buyers and buyers of modest houses from transaction tax. Sweden differentiates between natural persons and companies, charging 1.5% of the sales sum to buyers who are natural persons and 4.25% for business buyers.

B. Non-recurring forms of public value capture

The recently introduced new urban agenda (UN Habitat, 2022), which emphasises the link between sustainable urbanisation and a better quality of life, will require higher revenues for public spending. There is therefore a strong need for knowledge exchange on the most effective PVC tools that can be applied in European countries.

It is a common non-recurring form that local authorities request the developer/owner to provide in-kind road and service infrastructure within the development project boundary. However, for smaller scale developments, local authorities may ask for in-kind contributions, for example to build a playground or small public spaces outside the development boundary.

PCV is already present in elements of the planning process, such as: land use change, general/spatial/detail plan, planning permission. The development will include the construction of roads and social infrastructure (e.g. schools, public open spaces etc.) with the support of PVC tools. The local authority may require the developer/owner to make an in-kind contribution to the provision of roads and services within and outside the development project. Fig. 1 shows PVC's role in the developing process.

The PVC increases due to the internal infrastructure factor (Bosnia Herzegovina, Bulgaria, Croatia, Germany, Italy, Latvia, Lithuania, North Macedonia, Serbia, Slovakia, Slovenia, Sweden, Switzerland, Turkey and the UK) in the majority of countries. In some countries, in particular Finland, France, Germany, Israel, Italy, Finland, France, Germany, Israel, Serbia, Sweden, Switzerland, Israel, and the UK, developers/owners may be asked to contribute to external infrastructure.

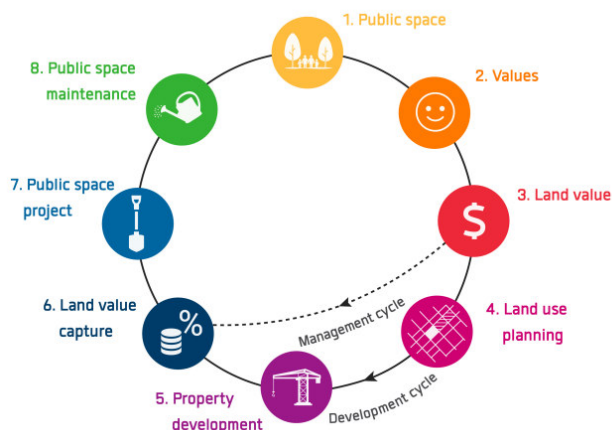


Fig. 1. The role of PVC in developing process [10]

It is important to note that the most significant PVC instrument is the developer obligation, which has been adopted by the majority of the countries analysed, in particular Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Estonia, Finland, Germany, Hungary, Israel, Italy, Latvia, Lithuania, Malta, the Netherlands, Poland, Hungary, Malta, Slovakia, Slovenia, the Netherlands, Sweden, Switzerland, Norway, Northern Macedonia, and the United Kingdom. The Fig. 2 shows the practice of PVC in Israel.

Developer contributions in kind have a long tradition in many countries. Today, this instrument has been extended to the payment of contributions in kind or levies. This is how owners/developers contribute to social infrastructure, affordable housing, and community spaces. Except for United Kingdom, all the above-mentioned countries use some form of developer contribution. Developer contributions in the UK can cover contributions to affordable housing and other infrastructure (such as education, health, transport, flood and water management, green and digital infrastructure).

However, there are countries where the developer/landowner benefits fully from the increase in land value due to the planning process and there is no PVC to finance community functions based on this factor. These countries include: as Austria, Bulgaria, Croatia, Czechia and Slovakia. In most of the above countries, the local authority is responsible for providing the technical infrastructure inside and outside the development project, and the developer/landowner is obliged to pay a fee for this. In Austria, there have been extensive discussions on the need to adopt a policy of planning profit set-aside in the future in order to support the provision of affordable housing through the regional land fund. In the Czech Republic, the local authority charges the owner of a developable plot a fee for connection to an existing water or sewerage network. The expectation is that roads within the development project and connections to the existing road network are the responsibility of the developer/landowner.

The land readjustment can be an effective instrument for PVC. In Germany, Spain and Israel, where the compulsory land readjustment procedure has a long tradition, this land management tool is successfully used to ensure efficient PVC. Finland, Sweden, France, Belgium, however, do not necessarily apply the land readjustment instrument for PVC, but in fact they apply the land management instrument well in their land use planning policies.

Most countries have created non-recurring forms of PVC that can be considered as developer obligations. The developer contributes in kind or by paying a fee to public development in exchange for a decision that enables the development process. Developer obligations for developer contributions are usually based on negotiations between the local authority and the developer. The agreed obligations are usually agreed before planning permission is granted.

The developer obligations and the conditions when and how they are agreed vary from county to county, but some generalities can be made. According to the analysis, development obligations can serve up to three purposes:

1) to capture the value of land, as the benefits derived from land are "unearned" (a link to the concept of land rent);

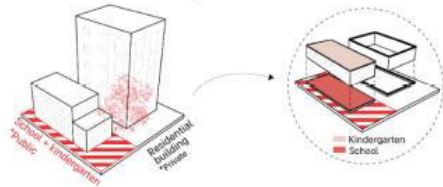
2) to finance public costs (provision of technical and social infrastructure, including playgrounds, open spaces, affordable housing, etc.);

3) to finance public budgets in a more general sense. It should be noted that the same objectives can also be linked to recurrent forms.

/ Option A

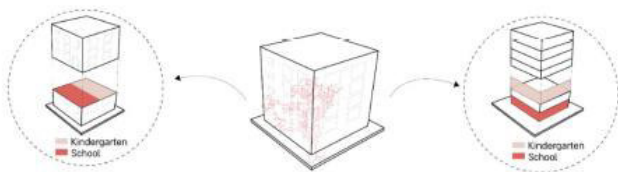
Taking up to 40% of a given parcel for public use (thereby creating two separate parcels).

Accordingly the municipality would build public buildings on its parcel, and the developer would build on his/her share.



/ Option B

Allocating one floor (or more). Public floorspace would serve the neighboring community.



/ Option C

The municipal authorities may require owners/developers to allocate floorspace for public functions that serve a range of purposes: multiple public floors can be stacked on top of each other to serve the nearby community, the entire city, or reserved for undetermined future use.

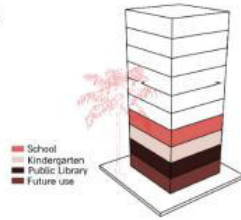


Fig. 2. Pathways for the vertical allocation of public floor space in Israel [11]

In Italy, building contributions are proportional to construction costs and are set at regional level. Urbanisation charges are levied to finance the costs incurred by the municipality for new urbanisation. Austria, the Czech Republic, Germany, Israel, Slovakia, Sweden, and Switzerland apply a developer/owner levy (fee) for the construction of technical infrastructure within the project in addition to the agreed developer obligations for technical and/or social infrastructure outside the development project. In United Kingdom, developers make in-kind contributions to the technical and social infrastructure within the development project, in addition to the agreed developer obligations, which are either in-kind contributions or a levy (charge) on the technical and/or social infrastructure outside the project. Malta applies the infrastructure service contribution and developer obligations associated with the development project, which would contribute to large private sector projects. France applies a development tax/m² to finance the infrastructure of the project, in addition to the social mix obligations. Belgium applies planning conditions for the developer to contribute in kind to the infrastructure to be built in the project, and planning fees to compensate for the impact of the development. Poland applies an

infrastructure charge to the development project and an obligation on the developer to upgrade roads in order to obtain planning permission. Slovenia only applies a charge for utilities and Latvia applies a developer obligation for infrastructure outside the development project.

There are basically two approaches to developer obligations. One group includes value capture assets directly related to the development project, and the other includes major revenues that can be used to finance the public budget. Developer obligations based on a value-based approach are used in Germany and the UK, where a development value assessment by an independent property valuer forms the basis for negotiations between the developer and the local authority. The value established for the development valuation is calculated using the comparative valuation method in Germany and the residual valuation method in the UK. The negotiated approach to builders' obligations is very much applicable in Switzerland, but the negotiations are facilitated by lawyers rather than planners and surveyors.

There is an alternative instrument to obligations - the builder's levy, which is applicable in most of the countries analysed. The levy is usually calculated using a method adopted by the local authority, based on a fee per m², per unit and/or per overall size of the development.

The countries analysed can be divided into two groups according to the responsibility for financing technical infrastructure within a development project.

Group 1: Austria, Belgium, Czech Republic, Estonia, Finland, Germany, Hungary, Israel, Norway, Sweden, Switzerland, Latvia, Switzerland. In these countries under the approved local plan, the landowner is responsible for financing the technical infrastructure.

Group 2: Bosnia and Herzegovina, Bulgaria, Croatia, France, Greece, Italy, Lithuania, Malta, Northern Macedonia, Poland, Serbia, Slovakia, Slovenia, Turkey, United Kingdom. In these countries the developer becomes the landowner and is responsible for providing the technical infrastructure in kind or paying a fee.

IV. SUMMARY

The tools of non-recurring forms varies from country to country, but generally similar variations of forms can be found across participating countries. This occurrence heavily depends on existing political-legal-Institutional framework, which includes property rights, planning and development policies and practice in each country.

It can be generally stated that both the recurrent and the non-recurrent value capture tools contribute significantly to the social welfare. Quite a lot of the countries in this sample expect developers to finance new and upgraded infrastructure and most of the countries also require the developers to contribute to the financing of technical, green, and grey infrastructure outside of the development project.

The idea of unearned value increase is not accepted in all countries, because few countries use non-recurrent instrument that can extract developer contributions to more than one factor. In addition, relatively few countries apply mandatory land readjustment instruments or temporarily public landownership. Both public land readjustment and temporarily public landownership are instruments well suited for extracting land for very different kinds of goods –

like land for greens and kindergartens, and affordable houses, and technical infrastructure. This appears as an area to be developed in these countries.

The sample shows that, value extracted from increased land value is very limited degree target social aspects of urban life. Analysis of recurrent land value capture is more nuanced, but the property tax and the transaction tax types might be further differentiated for fair and equitable contribution.

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