ORGANIZATION AND MANAGEMENT SERIES NO. 229

PROPERTY TAX SYSTEM ON THE CASE OF RESIDENTAL PROPERTIES IN THE COOK COUNTY (ILLINOIS, THE USA)

Magdalena JASINIAK

Corporate Finance Department, University of Lodz; magdalena.jasiniak@uni.lodz.pl, ORCID: 0000-0002-1658-320X

Purpose: The main aim of this article is to analyze the property tax system in the USA on the Cook County example as a sample of solutions for establishing property tax value.

Design/methodology/approach: This article adopts a conceptual perspective, using the property tax calculation model employed in Cook County as a case of a systemic policy design. As one of the largest and most complex local jurisdictions in the U.S., Cook County provides a valuable case for illustrating how systemic rules, equalization procedures, exemptions, and reassessment cycles interact within a local tax structure.

Findings: The presented property tax system may be characterized as transparent and designed with the objective of establishing a fair market value for taxation purposes. It is strongly depended on the fiscal needs of local jurisdictions, particularly in financing public services. It also provides homeowners the opportunity to appeal the assessed value of their property thereby introducing an element of procedural fairness and accountability into the assessment process.

Social implications: This article presents the systemic solutions implemented in Cook County, which may serve as a source of inspiration for national-level tax system design. Of particular note is the transparency of the property tax system and the institutional recognition of its imperfections, as reflected in the availability of formal appeal procedures.

Originality/value: This article responds to the growing interest in the topic of property taxation in Poland. Although the system in the United States operates under distinct economic and institutional conditions, it is worthwhile to highlight certain features that make it transparent and comprehensible to taxpayers, as well as perceived as fair. By examining these structural elements, the article aims to inform ongoing discussions on the design of equitable and accessible property tax systems in other national contexts.

Keywords: property tax system, property tax evaluation, the US property tax.

Category of the paper: Case study.

1. Introduction

Poland is one of the few EU countries where the amount of property tax is based on the area of the property, rather than its value. In Poland, taxes imposed on real estate ownership play a crucial role in financing municipal budgets. In general, it is calculated on the usable area of the property and the tax rate set by the municipality. Discussions about changing this system have been ongoing in Poland for several decades, but social concerns about increased tax payments have primarily hindered progress. The Polish property tax system is still based on legal solutions from the 1980s and 1990s and existing regulations fail to reflect economic realities, such as current property market values (Dowgier, 2021).

The changes introduced in property tax from January 1, 2025, indicate that the topic is still relevant. This system is often criticized for its low efficiency and injustice.

One of the main flaws of the Polish system is the lack of connection between the taxpayer's financial situation and the amount of tax. Tax rates are limited by law and indexed only by the inflation rate, which means they do not keep up with the dynamics of changes in property prices.

However, Polish taxpayers are subject to a broad spectrum of fiscal obligations, encompassing various forms of direct and indirect taxation. Among these, the value-added tax (VAT) constitutes a particularly significant component of public revenues, with its economic burden predominantly borne by consumers. In addition, individuals and businesses contribute substantial amounts to the public finance system through personal and corporate income taxes, as well as social security contributions and other public levies.

Against this backdrop, any prospective reforms concerning property taxation—which represents an additional form of wealth-based taxation—should be approached with caution and careful deliberation. It is essential to balance the fiscal needs of local government units with the aggregate tax burden already borne by taxpayers. Ill-considered or abrupt modifications to the property tax framework may not only provoke public opposition but also disrupt the overall equilibrium between different sources of public revenues and the distribution of tax liabilities across the economy.

In this context, any modifications to the property tax system in Poland carry the potential risk of reducing household disposable income, thereby diminishing the purchasing power of taxpayers. Such outcomes may, in turn, generate unintended adverse economic and social effects, ultimately undermining the initial objectives of the reform, such as increasing local government revenues or enhancing fiscal efficiency. Therefore, the design and implementation of property tax reforms should be carefully calibrated to avoid exacerbating the overall tax burden and to ensure an equitable balance between revenue generation and taxpayers' financial capacity.

Accordingly, it becomes imperative to undertake systematic empirical research and comparative policy analyses aimed at examining property tax frameworks applied in other jurisdictions. Such inquiry facilitates not only the critical appraisal of alternative institutional arrangements and legal constructs, but also allows for an ex ante evaluation of the potential economic, distributive, and fiscal implications that the implementation of these models may produce within the specific institutional, economic, and social context of Poland. This evidence-based approach is essential to ensure that prospective reforms are both effective and sustainable over the long term.

Within the framework of this article, the property tax system implemented in Cook County (Illinois, the USA) will be examined and presented as a case study offering potential reference points for the discussion on property tax reform in Poland. To the best of the author's knowledge, the existing literature has not yet addressed in detail the mechanisms for determining property tax liability at the municipal or county level in the United States. While many studies examine the economic effects of property taxation, its regressivity, or its role in local government finance, relatively few provide an in-depth analysis of how tax assessments are calculated in practice, particularly at the sub-state level.

This article seeks to fill that gap by offering a conceptual exploration of the property tax assessment framework used in Cook County, Illinois. As one of the largest and most complex local jurisdictions in the U.S., Cook County provides a valuable case for illustrating how systemic rules, equalization procedures, exemptions, and reassessment cycles interact within a local tax structure.

The analysis will focus in particular on the systemic solutions, administrative structures, and valuation methodologies applied in this jurisdiction. By exploring the institutional arrangements functioning in Cook County, the study aims to identify elements that could inform the design of more effective, equitable, and administratively feasible property tax policies in the Polish context, while simultaneously acknowledging the need for careful adaptation to local legal, economic, and social conditions.

Following paper aims to put into discussion solutions provided by the property tax system in the Cook County and highlights good practices in this area. The Author acknowledges the significant systemic differences between Poland and the United States, particularly in the areas of legal, administrative, and cultural frameworks, which undoubtedly affect the feasibility of practically implementing the solutions presented herein. At this point, the article aims to emphasize the importance of transparency in the tax system, while the question of whether certain solutions can be implemented in the Polish context—given the existing institutional framework—remains a subject for separate and more detailed consideration.

2. Research Method

To conduct an in-depth analysis of the property tax system in the United States, this study adopts a case study methodology, focusing on Cook County, Illinois. As one of the largest and most administratively complex local government units in the United States, Cook County offers a robust framework for analyzing both the institutional and practical dimensions of property taxation.

Cook County comprises over 130 municipalities, including Chicago, the third-largest city in the United States. The county government is responsible for a wide range of public services, including education, transportation, judicial administration, and public health. This governance structure requires a highly adaptable property tax system capable of addressing socio-economic disparities across distinct neighborhoods, from wealthy suburbs such as Wilmette and Oak Park to underprivileged areas within the metropolitan core.

Moreover, Cook County is frequently cited in academic and policy discussions surrounding key challenges in property taxation, such as:

- the regressivity of property taxes in economically disadvantaged districts,
- the equity and accessibility of the appeals process,
- economic disincentives for commercial investment,
- and the systematic undervaluation of properties among specific social groups.

These challenges are not exclusive to the United States; they are equally relevant for post-socialist and transitioning economies, such as Poland, which are in the process of designing or reforming their own local tax systems.

The empirical analysis in this article draws on data and official publications from the Cook County Treasurer's Office and the Cook County Assessor's Office—the institutions tasked with administering property valuations, enforcing tax collection, and managing appeals procedures. Their documentation and operational transparency provide a valuable foundation for evaluating the functional characteristics and institutional logic of a mature property tax system.

3. The US Tax System

Property taxation holds substantial potential for enhancing public revenue generation and improving tax equity, particularly in transitional and developing countries. It is proved that property tax revenues are perceived as being spent most effectively and delivering the greatest value compared to other taxes (such as federal income, state income, or sales taxes), however individuals consistently express the highest level of aversion toward the property tax (Cabral, Hoxby, 2012).

One of the primary constraints on property tax reform in transitional and developing countries is weak administrative capacity, often rooted in political, institutional, and human resource limitations. Effective reforms must be designed with careful consideration of these constraints, including the existing reform context, legal and institutional frameworks, the administrative capabilities of government agencies, and the presence—or absence—of political will. Any property tax reform must be tailored to local conditions, adapting international best practices to the specific institutional, legal, and socio-economic context of the country in question (Kelly, 2013).

Property taxation constitutes a significant revenue source for local governments in the United States, funding essential services such as public education, law enforcement, emergency response, and infrastructure development. Municipalities, counties, school districts, and special-purpose districts collectively generate approximately \$500 billion annually through property taxation, constituting approximately 72% of total local tax revenue and 47% of local own-source general revenue across the United States (Berry, 2021).

Among these, its stability over economic cycles is particularly noteworthy, as it is less susceptible to fluctuations compared to sales or income taxes. This stability facilitates predictable revenue streams, enabling municipalities to mitigate fiscal shortfalls during periods of economic contraction. Additionally, property taxes are relatively progressive compared to alternative revenue sources, as they are more closely aligned with wealth accumulation. Unlike sales taxes, which disproportionately burden lower-income households due to their regressive nature, property taxes promote fiscal equity. Furthermore, the decentralized nature of property tax administration supports local autonomy, allowing municipalities to tailor tax rates to their specific fiscal needs (Lincoln Institute..., 2023).

The property tax is, by design, an ad valorem tax, implying that the tax liability is proportional to the assessed market value of the property. In contrast to transaction-based taxes such as sales taxes or value-added taxes (VAT), the property tax is levied at regular intervals—typically on an annual basis—regardless of whether a sale has occurred.

Since the majority of real estate assets are infrequently traded, their market value must be estimated for each taxation period. This task is delegated to the local assessor's office, whose valuations serve as the foundation for determining tax obligations. Consequently, the accuracy and equity of the property tax system are critically dependent on the reliability and objectivity of these assessments.

Given the extensive body of academic research devoted to property taxation, it is notable—and somewhat paradoxical—that the process of property assessment, which plays a central role in shaping both tax incidence and fairness, has received comparatively limited scholarly attention (Berry, 2021).

The following table presents the share of property tax revenues in 50 states in general revenues from own sources (local government amount) in 2022 (Tab. 1).

Table 1.The share of property tax revenues in general revenues from own sources in 50 US states in 2022 (ths USD)

	General		Revenue	Sales and	Total taxes	
	revenue from	Revenue	from	gross	in general	Property
	own sources	from Total	Property	receipts	revenues	tax in total
State	(USD)	Taxes (USD)	Tax (USD)	(USD)	(%)	taxes (%)
US Total	1 361 090,43	894 128,02	627 437,31	165 801,67	66	70
District of						
Columbia	12 078,96	10 077,57	2 908,14	2 121,93	83	29
Arkansas	5 076,38	3 295,94	1 303,15	1 941,10	65	40
Alabama	15 946,23	7 579,52	3 040,04	3 645,92	48	40
Louisiana	17 137,03	10 859,42	4 670,74	5 877,25	63	43
Nevada	9 813,39	5 774,57	2 873,47	2 336,69	59	50
Washington	37 325,98	21 661,95	11 129,97	8 440,75	58	51
Maryland	25 916,29	20 425,76	10 615,03	797,22	79	52
New Mexico	5 840,85	4 211,55	2 220,85	1 913,48	72	53
Oklahoma	11 187,61	7 011,34	3 776,76	3 078,84	63	54
New York	153 630,01	118 785,82	65 301,66	22 971,25	77	55
Kentucky	10 163,50	7 028,80	3 879,46	889,94	69	55
Arizona	19 975,49	13 915,45	8 019,74	5 285,90	70	58
Utah	12 772,31	7 632,66	4 555,71	2 814,10	60	60
Missouri	20 927,52	13 859,42	8 374,72	4 234,44	66	60
Colorado	31 043,66	20 270,83	12 402,27	7 149,81	65	61
Ohio	43 944,77	30 196,49	19 004,81	3 465,16	69	63
Tennessee	20 001,06	10 532,15	6 845,81	3 194,03	53	65
Georgia	39 555,95	23 225,31	15 157,44	7 362,20	59	65
California	208 614,80	120 629,38	80 438,76	28 631,90	58	67
Hawaii	4 649,17	3 439,76	2 312,58	806,11	74	67
Pennsylvania	43 448,34	32 670,09	22 258,37	1 527,42	75	68
North Carolina	35 481,33	18 271,50	12 507,08	5 060,02	51	68 72
South Dakota South Carolina	2 868,18	2 122,62	1 530,92 7 480,91	502,09 1 934,84	74 52	72
Kansas	19 996,22 9 827,45	10 329,82	4 449,69	1 410,71	61	74
Florida	88 317,84	5 993,28 49 372,70	37 261,66	8 982,30	56	75
	16 235,68	10 530,84	7 987,54	809,43	65	76
Oregon Alaska	3 529,36	2 137,53	1 626,90	471,73	61	76
North Dakota	2 844,93	1 634,57	1 020,90	342,70	57	77
Virginia	30 323,99	22 595,47	17 453,20	3 453,45	75	77
Nebraska	9 579,50	5 774,48	4 470,29	595,74	60	77
Delaware	2 212,51	1 480,41	1 178,44	23,56	67	80
West Virginia	4 062,14	2 445,67	1 955,04	203,20	60	80
Illinois	54 667,82	40 594,10	32 784,63	6 747,14	74	81
Wyoming	3 371,43	1 197,15	981,56	148,23	36	82
Texas	117 072,11	81 428,41	67 076,59	12 934,89	70	82
Indiana	21 589,63	10 301,61	8 583,78	194,76	48	83
Iowa	13 300,11	7 494,94	6 393,53	893,22	56	85
Michigan	27 255,49	15 997,88	14 562,43	344,75	59	91
Minnesota	19 837,83	11 133,76	10 172,61	631,52	56	91
Wisconsin	17 039,89	11 714,06	10 702,92	692,02	69	91
Idaho	4 793,11	2 245,65	2 087,30	82,16	47	93
Mississippi	8 357,75	3 819,20	3 578,75	130,15	46	94
Vermont	1 230,73	867,59	824,77	29,92	70	95
Massachusetts	26 868,56	22 004,07	20 919,90	508,42	82	95
Montana	2 940,99	1 871,76	1 798,15	29,23	64	96
Rhode Island	3 530,08	2 855,55	2 767,52	36,56	81	90

Cont. table 1.

New						
Hampshire	5 505,78	4 770,98	4 689,26	9,49	87	98
New Jersey	41 047,92	34 176,19	33 617,23	108,64	83	98
Connecticut	13 931,95	12 328,56	12 140,92	0,00	88	98
Maine	4 420,89	3 553,90	3 506,93	5,39	80	99

Source: own elaboration on the basis of data – Census.gov, https://www.census.gov/data/datasets/2022/econ/local/public-use-datasets.html, 08.07.2025.

The share of taxes in general revenue varies widely from 36% to 88%. The national average shows that approximately 70% of taxes come from property taxes, and the dependency from property tax ranges from very low (below 30%) to almost full dependency (close to 100%). It mostly depends on the municipalities financial needs. The Illinois operates under a property-tax-centered model of local finance, typical for Northeastern states. Unlike many other US states that balance between income taxes, sales taxes, and property taxes, Illinois heavily relies on property taxation to fund both municipal services and school districts. This model offers stable and predictable revenues for local governments, involves high tax burdens for property owners, is increasingly politically sensitive due to rising housing prices and tax bills and requires sophisticated property valuation systems and appeals processes.

Simultaneously, the implementation of such a model for financing public tasks is feasible due to the absence of significant additional tax burdens on residents. It is important to recognize that excessive taxation may produce counterproductive outcomes, potentially leading to household impoverishment and, consequently, to reduced tax compliance and enforcement efficiency.

As demonstrated in a study by Wong (Wong, 2024), increases in property taxes are associated with a higher likelihood of financial distress among homeowners. This effect is observable through delayed mortgage payments, increased credit card debt, and an elevated risk of home foreclosure. Specifically, the study found that a \$100 increase in property tax correlates with an approximately 1% increase in mortgage delinquency rates.

Moreover, property tax hikes were found to reduce consumption expenditures among homeowners, suggesting broader macroeconomic implications. In the long term, elevated property tax burdens may force displacement, particularly among low-income or liquidity-constrained homeowners.

The research also revealed that while rising home values increase owners' net wealth, this does not necessarily translate into increased borrowing against that equity. Many homeowners do not leverage the additional value, which may be attributable to factors such as reluctance to incur debt, preference for savings, or limited access to home equity loans or credit markets.

Also for many aging American households, housing wealth represents the primary component of their retirement asset portfolios. Combined with limited access to liquid assets and current income, this concentration renders elderly households particularly vulnerable to unexpected shocks in home values (Zhao, Burge, 2017).

A particularly illustrative case of low property tax system efficiency is the city of Detroit, where ongoing discussions are focused on transitioning from a traditional property value tax to a Land Value Tax (LVT) system (Hunter, Bograd, Boddupalli, 2023). The proposed reform involves increasing taxes on vacant land while simultaneously reducing taxes on buildings by 30%. The primary objective of this initiative is to address some of the city's chronic economic issues, such as urban blight and the disincentivizing effect of high property taxes on redevelopment.

Current taxation practices in Detroit impose significant burdens on property improvements: any construction, renovation, or maintenance activities increase the assessed property value and, in turn, the tax liability. This discourages investment and contributes to the deterioration of neighborhoods.

According to municipal estimates, the implementation of an LVT would reduce property tax bills for approximately 97% of homeowners and 70% of small businesses in the city. A typical multifamily residential building would save around 20% on its tax bill. Conversely, owners of vacant lots and scrap yards could experience a tax increase exceeding 100%, reflecting the reform's intent to promote productive land use and penalize speculative or underutilized holdings.

4. The Evaluation of Property Tax on the Cook County Example

Property taxes are collected on a county level, and each county in Illinois has its own method of assessing and collecting taxes. As a result, it's not possible to provide a single property tax rate that applies uniformly to all properties in Illinois. The Cook County is characterized by a strong role of local government financing through property taxes and limited reliance on alternative taxes (e.g., sales tax, personal income tax, corporate tax at state level) and it is also an extremely large and diverse housing market. It spans millions of properties that vary widely in type, age, location, and quality. In some regions of the county, sales are common; in other regions, sales are sparse. Accurately estimating the price of such different properties and regions is a complicated, challenging task.

The complexity of property assessment is particularly pronounced in areas characterized by substantial heterogeneity in housing attributes and market values. A notable example is Hyde Park, a Chicago neighborhood that hosts the University of Chicago, where high-value, multimillion-dollar properties are located near the campus. However, market values decline sharply within short distances, particularly south of 63rd Street or west of I-90, creating abrupt price discontinuities. Such spatial volatility poses serious challenges for mass appraisal models, which tend to smooth over sharp breaks unless explicit geographic segmentation is incorporated into the modeling process. The central challenge lies in expanding revenue for schools in low-

income districts, whose own-source fiscal capacity is insufficient to provide adequate education, even when they impose significantly higher property tax rates than wealthier jurisdictions (Youngman, 2016).

While Hyde Park exemplifies this phenomenon, similar valuation complexities are observed across numerous jurisdictions within Cook County. Although the employed appraisal model incorporates neighborhood fixed effects and other locational covariates, effectively capturing high-resolution spatial heterogeneity remains a persistent methodological challenge.

Mass appraisal models rely on sufficient volumes of transaction data to generate accurate price predictions. However, sales data are sparse at both ends of the price spectrum, complicating model calibration for outlier properties. In Cook County, over 90% of transactions occur within the \$50,000 to \$2.5 million range. Properties priced outside this interval are underrepresented in the dataset, limiting the model's predictive accuracy and increasing the likelihood of systematic valuation errors (www.cookcountyassessor.com).

This issue is especially evident in geographically segmented markets with skewed value distributions. For instance, in New Trier Township, the average sale price in 2021 exceeded \$1.2 million, substantially above the county-wide average of approximately \$400,000. Sales at or near the county average are rare in such affluent areas, which increases the risk of overvaluation for lower-value properties located within those same geographic units. The inverse effect is observed in lower-income neighborhoods, where high-value properties may be undervalued due to insufficient comparable sales (www.cookcountyassessor.com).

The Cook County Assessor's Office (www.cookcountyassessor.com) is responsible to calculate a fair market value of the property and on its basis set the amount of property tax required. A fair market value is based on two things: home characteristics and patters between how other homes' characteristics affected their sale values. To estimate the home value, sales of the similar homes are used, in and around the neighborhood. Because sale values of homes are affected by their characteristics - such as its square footage, age, and location – the system use statistical modeling to use those characteristics to produce property values for each home. The assessment models consider several different characteristics of homes including, but not limited to building square footage, number of bedrooms, construction type etc. and additional factors such as location, environmental variables (flood risk, noise) and market trends. However, some data might be missed like property condition, lot frontage, land slope, percentage of property above grade, quality of finishes, electrical and utility systems, interior characteristics like finish quality, recent remodeling or kitchen quality, any information about pools, information about location desirability of views. This characteristics are difficult to distinguish between individual properties and may cause larger errors when modelling. For example, an extremely run-down mansion with otherwise high-value characteristics (good location, large number of bedrooms) may be significantly over-assessed, due to our model not accounting for property condition. In case that particular property was under – or over – evaluated, homeowner have a possibility to appeal. This is important part of procedure

because all the mistakes in the assessment will influence not only the particular property but also have negative consequences for neighbors and similar properties.

For the purpose of assessment, Cook County is divided into three sections. Each triad contains multiple townships. All properties in each triad are reassessed every three years in a triennial cycle. The reports on all assessments are published. Each residential township report shows home sale trends and assessment changes for every neighborhood. This makes the property valuation system transparent and verifiable by individual homeowners.

Residential properties are assessed as of January 1st of the current year, using three to five years of prior sales information. By using multiple sale years, this increases the stability of market value estimates. The Cook County Assessor's Office uses mass appraisal to produce property values. Instead of appraising property one-by-one, mass appraisal looks to the real estate market to detect local trends in property values based on location and characteristics. Those trends are used to estimate the fair market value of each property based on its location and characteristics. Mass appraisal is a way to put fairness into the assessment system.

However, in some cases it may appear that proposed property value is assessed inadequately. Thus property owners have a right to challenge the accuracy of those updated values by filing an appeal. If an appeal seeking a lower fair market value is granted, the property's assessed value is lowered as well.

The property homeowners may appeal to Assessor's Office at first stage. If the date of appeal is missed or the result of appeal is not satisfactory, the next step is to appeal with the Cook County Board of Review. The third and last institution to appeal the property reassessment is the Property Tax Appeal Board.

Property owners receive Reassessment Notices in the mail. The Reassessment Notice contains the updated estimated Market Value of a property, property characteristics, and the deadline date to file an appeal if the property reassessed value is not accurate.

The overall amount of real estate taxes to be collected in particular community is determined, by all local taxing bodies providing services in your community, such as schools, parks, pensions, and library districts. The assessed valuation of the property does determine the share of those taxes.

After the assessor determines the Fair Market Value of the property, the Assessed Value of home is calculated. For residential property owners, the assessed value equals 10% of the fair market value of the home. For most commercial property owners, the assessed value is 25% of the fair market value. This level of assessed value is the taxable amount of the property, as determined by Cook County ordinance.

Then the State Equalization Factor/Multiplier ("State Equalizer") is applied to the assessed value and this creates the Equalized Assessed Value (EAV) for the property.

The State Equalizer is provided by the Illinois Department of Revenue. It utilizes assessed property values as a foundational element for the distribution of state funds across essential public services, including education, infrastructure, and public assistance. In this model,

jurisdictions with higher local property tax revenues receive proportionally less state support, aligning with equity-based fiscal redistribution principles.

Moreover, assessed values are pivotal for determining legal tax and debt limitations within taxing districts, since these caps are partially determined by aggregate assessed property values (Illinois Department of Revenue, n.d.).

To maintain consistency in property taxation across the state, the Department enforces assessment equalization. This process standardizes assessments at 331/3% of fair cash (market) value by conducting assessment/sales ratio studies, which compare a sample of assessed values with corresponding sales prices. Discrepancies between assessed and market values lead to the calculation of equalization factors, which are then applied uniformly within each jurisdiction.

In non-Cook counties, where assessors aim to meet the 331/31% standard directly, equalization factors are applied only when assessments deviate from the norm. For instance, in DuPage County, the 2021 equalization factor was 1034, indicating a moderate underassessment. In rare cases of overassessment, a factor below 1 would be used, though this is uncommon.

The Cook County, by contrast, operates under a classified assessment system, where residential properties are assessed at 10% and commercial/industrial at 25% of fair market value. As a result, the aggregate assessment level falls substantially below the statewide benchmark. To achieve parity, Cook County requires an equalization factor significantly greater than 1—historically above 2.0, and occasionally exceeding 3.0 (Illinois Department of Revenue, n.d.). This upward adjustment compensates for both structural classification and chronic underassessment of property (Pappas, 2024).

The Equalization Factor for the Cook County is fluctuating. As it is presented on chart below (Figure 1), the value in 2002 was 2,5% and achieved the maximum level in 2009 (3,4%). Since 2021 it has been rather stable, about 2,9% - 3,0%.

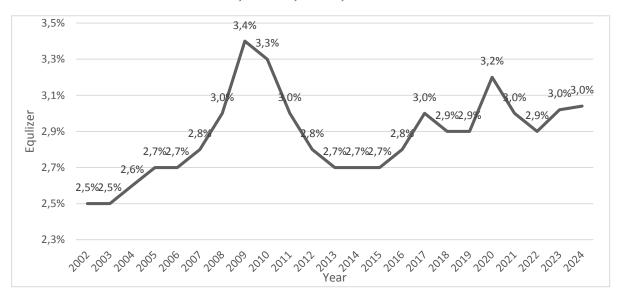


Figure 1. Cook County Equalization.

Source: Pappas, 2024, p. 16.

After the Equalized Assessed Value (EAV) for the property is evaluated, the next step is to calculate the Property Tax Exemptions. Any Exemptions earned by the home are then subtracted from the EAV. Possible exemptions are presented in the table below (Table 2).

Table 2. *The property tax exemptions, benefits and eligibility*

Exemption	Benefit	Eligibility
Homeowner (Homestead)	-\$10,000 EAV	Owner-occupied primary residence
Senior Citizen Homestead	-\$8,000 EAV	Age 65+, owner-occupied residence year-round
Senior Assessment Freeze		Age 65+, income \leq \$65,000, must qualify for
(Senior Freeze)	Freezes EAV at base year	certain benefits
	Up to \$75,000 improvement tax-	
Home Improvement	free for 4 years	For eligible property improvements
Returning Veterans	-\$5,000 EAV	Recently returned active-duty veteran
	-\$2,500 / \$5,000 / 100%	Veterans with service-connected disability
Disabled Veterans	exemption (based on disability)	(30%+)
Disabled Persons	-\$2,000 EAV	Medically verifiable disability
Long-Time Occupant	Caps EAV growth (7-10%)	
(LOHE)	based on income	Lived in home 10+ years, income ≤ \$100,000
Senior Citizen Tax	Loan up to \$7,500, repaid upon	
Deferral	sale/death	Age 65+, income \leq \$65,000

Source: own elaboration on the basi:s Pappas, 2024.

What is worth notice, the Homeowner (Homestead) and Senior Citizen Homestead exemptions offer baseline relief to owner-occupants, with the latter specifically addressing agerelated income sensitivity. These serve as foundational mechanisms for preserving housing affordability and residential stability, particularly for aging populations. The Senior Assessment Freeze reflects a shift from one-time relief to long-term stabilization, ensuring that EAV—and thus tax burden—remains fixed for qualifying low-income seniors. This is particularly impactful in gentrifying neighborhoods, where assessment increases may otherwise displace elderly residents.

After any qualified property tax exemptions are deducted from the EAV, the Local Tax Rate is applied to the tax levies for the community. Once those levies are added up, the total is the amount of property taxes that is owed.

In the table below, the example how a tax bill could be calculated is presented. The estimated fair market value is 100.000 USD and a local tax rate is 8%. The Homeowner Exemption values 10.000 USD.

Table 3. *The property tax exemptions, benefits and eligibility*

2024 Estimated Fair Market Value	100 000 USD
Assessment Level (10% for residential properties)	x 0,10
2024 Assessed Value	10 000 USD
2024 State Equalizer	x 3,0355
2024 Equalized Assessed Value (EAV)	30 355 USD
2024 Tax Exemptions (f.e. Homeowner Exemption)	-10 000 USD
2024 Adjusted Equalized Assessed Value	20 355 USD
2024 Tax Rate	x 0,08
Estimated Tax Bill in dollars	1 628,40 USD

Source: own elaboration on the basis: Pappas, 2024.

As presented above, in case of property worth 100.000 USD, assuming exemptions valued at 10.000 USD, we may expect 1.628,40 USD property tax. The final value of property tax is determined mostly by the Estimated Fair Market Value which is the basis for the calculation and the State Equalizer.

5. Conclusions and Discussion

The development of a property value-based taxation system presents a significant methodological and administrative challenge. In real estate markets characterized by high heterogeneity, properties often vary widely in terms of type, age, location, and quality of construction. Moreover, spatial variation in locational desirability implies that the volume of property sales—upon which market value estimations are typically based—may be limited in certain areas. As a result, establishing a reliable and equitable fair market value (FMV) becomes particularly complex. These difficulties are further compounded in contexts where the market exhibits considerable structural and transactional diversity, limiting the effectiveness of standard valuation models and necessitating more refined, regionally adaptive assessment methodologies.

The presented property tax system is not without its shortcomings; however, several design features merit particular attention. Although the US property tax system operates under different economic and institutional conditions, it is worth highlighting certain features that make it transparent and understandable to taxpayers.

First and foremost, the system is characterized by a high degree of transparency and specificity, allowing homeowners to access comprehensive information regarding the valuation of their property. Importantly, it includes a clearly defined appeals process in cases where the assessment conducted by the Assessor's Office—applied uniformly across all properties within a given jurisdiction—significantly deviates from the market value of an individual property.

Moreover, the reassessment process is carried out in administrative groups corresponding to specific townships, which facilitates the efficient handling of assessments and appeals and contributes to the smooth functioning of the entire system.

Another noteworthy aspect is the system's capacity to reflect the fiscal needs of local jurisdictions, particularly in financing public services by including the State Equalizer in the tax evaluation process. Additionally, it incorporates a range of tax exemptions, enabling certain taxpayer groups to reduce their effective property tax base and promoting vertical and horizontal tax equity.

Finally, the system promotes public accountability by ensuring that information regarding the tax liability of individual properties is made publicly available through online housing platforms, thus reinforcing both transparency and citizen engagement in the fiscal process.

References

1. Berry, C.R. (2021). *Reassessing the property tax*. The University of Chicago, Available at: SSRN 3800536.

- 2. Cabral, M., Hoxby, C. (2012). *The hated property tax: salience, tax rates, and tax revolts* (No. w18514). National Bureau of Economic Research.
- 3. Census.gov, https://www.census.gov/data/datasets/2022/econ/local/public-use-datasets.html
- 4. Dowgier, R. (2021). The Polish system of property taxation. *Prawo Budżetowe Państwa i Samorządu, no. 3(9)*, DOI: http://dx.doi.org/10.12775/PBPS.2021.014
- 5. Hunter, L., Bograd, S., Boddupali, A. (2023). *Detroit Considers Shift From Property To Lad Value Taxation*. Tax Policy Center, https://taxpolicycenter.org/taxvox/detroit-considers-shift-property-land-value-taxation
- 6. Kelly, R. (2013). Making the Property Tax Work. *ICEPP Working Papers*, 42. https://scholarworks.gsu.edu/icepp/42
- 7. Lincoln Institute of Land Policy and Minnesota Center for Fiscal Excellence (2023). 50-State Property Tax Comparison Study For Taxes Paid in 2022.
- 8. Pappas, M. (2024). How the Illinois Property Tax System Works. Illinois.
- 9. The Cook County Assessor Office, https://www.cookcountyassessor.com/
- 10. Wong, F. (2023). *Taxing homeowners who won't borrow*. Available at: SSRN: https://ssrn.com/abstract=4584189 or http://dx.doi.org/10.2139/ssrn.4584189
- 11. Youngman, J.M. (2016). A good tax: Legal and policy issues for the property tax in the *United States*. Cambridge, MA: Lincoln Institute of Land Policy.
- 12. Zhao, L., Burge, G. (2016). Housing Wealth, Property Taxes and Labor Supply among Elderly. *Journal of Labor Economics*, vol. 35, no. 1.