

Central and Eastern Europe Local Government and Housing Privatization

Prepared for the Office of Housing and Urban Programs
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**A FRAMEWORK FOR THE DEVELOPING
OF THE LEGAL AND ADMINISTRATIVE
STRUCTURE FOR IMPLEMENTING AN
AD VALOREM PROPERTY TAX IN POLAND**

POLAND

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Prepared by

**Joseph Eckert
Bob West
Roy Kelly**

Consultants to ICMA

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Table of Contents

Abstract
Executive Summary
Report on the Feasibility of an Ad Valorem Base Property Tax in Poland
Prototype Manual for an Ad Valorem Property Tax in Poland
Appendix 1 - Policy Options and Recommendations for Poland
Appendix 2 - Draft Law Real Property Taxation in Poland
Appendix 3 - Explanation of Real Property Valuation
Appendix 4 - Analysis of the Current Law on Agriculture, Forest, Urban Property and Land
Appendix 5 - Analysis of Land and Apartment Sales Data
Appendix 6 - Exceptional Properties

Abstract

The development of local revenue systems in countries in transition can play a major role in facilitating decentralization of government services to the lowest possible level of government. The report demonstrates the feasibility of creating an ad valorem based property tax system for Poland and demonstrates the usefulness of setting up market monitoring system for countries in transition to help stimulate the development of markets and provide the bases for real estate valuation. The report includes an assessment manual that addresses the administrative management and structural issues as well as a draft law and discussion paper.

Executive Summary

The authors made several trips to Poland as part of two ICMA/USAID funded programs. The second mission focused on the development of a legal and administrative structure to implement an ad valorem property tax. It was aided, however, by valuable knowledge obtained in the first mission about sources of real estate data.

The mission members studied the current budgeting and funding process for both the Voivodship and Gmina levels of government, reviewed the laws governing the existing property tax and investigated the feasibility of converting the existing tax to an Ad Valorem basis. We investigated this possibility by establishing a market monitoring system that collected sales on apartments and vacant land and tested the ability to use mass appraisal methods and techniques to price unsold apartments and vacant land.

The simulation also provided valuable data relative to the data elements for land and apartments that support valuation and should be collected in a country wide data collecting effort. An additional positive side effect of the project was that the market monitoring system could provide valuable summaries of market behavior in the form of value maps and land price indexes that could be shared with brokers, buyers, sellers and developers. This information can stimulate the development of effective land and improvement of markets.

The conclusions of the project are:

1. The conversion of the existing property tax to a value base could significantly increase revenue to the self governing units of the government. This has many desirable side effects such as supporting decentralization of services and permitting a lower of the tax rates on income related tax's. A simulation done for Kracow showed that an ad valorem based property tax could support 34-40% of the budget as compared to 24% currently.

2. In Krakow the market for land and apartments is operating efficiently and as a result its feasible to use mass appraisal methods to implement a value based property tax. (Assuming the same market activity is present elsewhere in Poland).
3. An automated fiscal and legal cadastre like the prototype operation in Krakow is a desirable model to implement throughout Poland and all countries in East Europe and the NIS.
4. The market monitoring project in addition to supporting valuation for ad valorem purposes provided valuable side effects that could speed up the development of all real property markets and similar projects should be started throughout Poland and other parts of Eastern Europe.

The outputs of the project include:

1. A paper outlining the technical feasibility and institutional rationale for a property tax in Poland. This paper summarizes the institutional study that was done that supports our recommendation relative to the administered structure and the prototype law. It should be of interest to USAID officials and other consultant involved in similar work.
2. A draft law on real property taxation in Poland. This document should be of interest to government officials and legislators in Poland responsible for drafting revenue laws.
3. An assessment manual that outlines the basic features and functions of a possible administrative structure suitable for Poland. This document should be of interest to the relevant ministries that will be responsible for administration of the property tax.
4. A policy paper that discusses the assumption in the law and the manual. This paper should be of interest to the same audience as outlined in 2 above.

5. An analysis and comparison table of the current law on the taxation of urban, agricultural, forest land and real property. This paper should be of interest to the same audience as outlined in 2 and 3 above.
6. A structure including, software, input forms and outputs of the market monitoring project. This information should be of interest to officials responsible for economic development and valuation issues in economic transition. (See appendix 3 of the Assessment manual for this material).

Implementation Strategies

The next steps related to implementation of an automated property tax include the following:

- 1 Hold a national seminar to deceminate the results of this project. The audience should include member of the ministry of construction and finance, as well as municipal officials from a broad range of communities in Poland. (Note: This was done on May 27 and 28).
2. Do a full simulation of the impact of the conversion of the property tax from a square meter based tax to an ad valorem based tax in one community. This information can be used to illustrate the increased equity of the tax as compared with the current version. Kracow could be the ideal site for this simulation as the market monitoring project centered in Kracow already has collected data to support the valuation process needed to do this simulation.
3. Use the information gained by the simulation outline above to pass a referendum in one community that would allow conversion to an ad valorem property tax. Again Kracow would be an ideal community to accomplish this. The current law on local finances provides for this option even before a general property tax law is in place.

4. Implement the property tax in the chosen community as soon as the referendum is passed. Study and deceminate the results.
5. Work toward the adoption of a new law that would allow for the adoption of an ad valorem property tax throughout Poland. (This could go on simultaneously with the above activity describe in 2 or 3 above.)

Report on the Technical Feasibility and Institutional Rationale for an Ad Valorem Based Property Tax in Poland

The Technical Feasibility of the Tax in the Polish Environment

The author and two colleagues visited Poland in October of 1991 for a study as part of two USAID grants. The first visit was to develop an appraisal method that could be used to determine the highest and best use of properties that municipalities had inherited from the state. Both missions concentrated their activities in Krakow, the former capital of the country. Krakow has a population of 750,000.

The first mission concentrated its efforts on investigating the infrastructure that would need to be in place in order to make any kind of appraisal work possible. The mission members extensively investigated the state of the land records system. The mission found that the maps, planning documents and ownership records were in reasonably good shape. The mapping system and the legal and fiscal cadastre were modeled on the German/Austrian model and as a consequence parcel information and title information was tied together by a common identification number. In addition, the Department of Geodesy and Land Management, of the Voivodship, had created the software to implement a GIS system and had automated the maps and legal and fiscal cadastral information in about 20 percent of Krakow by the time of our visit. (See Maps 1, 2, and 3 as examples.)

The GIS contained the base map level, the parcel level, the infrastructure level, demographics and ownership and occupancy information on the parcel level.

In Poland there are two levels of government, the self-governing units called Gminas, and the federal government authority administered through Voivodships that function like counties in the United States. On the Gmina level the land records office was collecting information on all commercial leases, apartment rentals and sales. In addition, the administration of the current property tax had been automated.

The mission members met with real estate brokers in order to understand how the market was developing. Brokers showed us a wide range of properties that were for sale at the time of our visit. It is interesting to note that for the past two years the number of brokers has increased from two to more than fifty. However, there is no broker association, and they do not share market information as yet. Likewise, we found that a small group of individuals who did appraisal work was developing. This group did meet regularly and shared information.

Given the infrastructure that we found in place the mission was able to collect market information on a range of property types. Data was collected on about seventy properties. We were able to get sales information on residential homes, single apartments, vacant land, small factories, retail stores, and apartment houses. Rental information was obtained for retail stores, offices and apartments. In addition, both distance measures from central Krakow and information on size were obtained. For single apartment sales we also obtained the geographic coordinates of the buildings, and for residential sales we were able to obtain a complete description of the improvement. Table G summarizes the main features of the database.

The following usage codes apply to that table:

Usage Codes

2	Single Apartment Sales
3	Land Sales
4 - 7	Commercial and Industrial Sales
41	Commercial Rents
21	Apartment Rents

Based on these data it was possible to investigate how well the real estate market appeared to function. Looking at simple relationships like the relationship between size and value as well as the relationship between value and location allowed us to determine how well organized the market had become. For instance, Graph 2 shows a strong relationship between size and value for apartment sales. Likewise, Graphs 3 and 4 show that value expressed in total

dollars and price per m² is inversely related to distance from the center of the city. Graph 5, for example, shows that there is a rational rent gradient for storefronts in Krakow.

Examination of these same underlying relationships for land sales showed that the market for vacant land is less rational.

On the segment of the data that was the largest, the apartment sales (Table H), we were able to investigate, using GIS technology, the spatial distribution of price per square meter. Using the three-dimensional graphics and contour mapping capacity of our GIS software we were able to examine the relation of prices per square foot, distributed spatially across Krakow. Graph 6, for instance, shows that price per square foot rises as you approach the center of Krakow, known as Rynek Gloway, and then falls as you move away. Graph 7 shows the same information expressed as ISO value curves. These are similar to contour elevation lines on a base map. Each line is representative of an equal value area. The value of this simulation is that it is possible to build value gradients for different property types that could be used as references for municipal officials making development decisions or for individual buyers and sellers who are interested in making bids or ask offers for a particular property. As more information is added to the database, more accurate grids can be created that will enhance the information about values by location. This too can become available to the market makers.

The data set made it possible to estimate the impact on property tax revenues of implementation of a full valorem tax. In its current form the property tax is regressive because higher-value properties pay the same tax as lower-value properties of the same size. Graph 8 shows this for the residential class. Effective tax rates decrease as value increases. Our previous analysis showed that value varied both by size and location. As a consequence, we suspected that an increase in yield of the property tax might be possible if a switch was made to a value-based system. The method we used was to compute the existing effective tax rate for each property within each class for which we had data. We then applied the highest effective rate to the value of each property in each class to come up with an estimate of the new tax yield. Table I summarizes this for the single-family residential class. The new yield in the column labeled TOTTXPJ is about 50 percent higher than the original total

tax for the class. Our estimates ranged from 50 to 80 percent increases in the different classes. The impact of, say, a 50 percent gain in property tax yield for Krakow could be significant. Appendix II shows the revenue and expenditure side of the Krakow budget. In the 1992 budget, property tax amounts to 24.6 percent of income. If the yield increased by 50 percent, the property tax as a percentage of revenue would increase to 37.3 percent, which is typical of the average contribution of tax in North America. The simulation is flawed, however, in that we did not have detailed information on the number of properties in each class or the distribution of property in high value ranges relative to low value ranges. Nonetheless, it is reasonable to expect a significant gain in yield as the market becomes more rational and value becomes more dependent on location and use and less dependent on size alone.

The second mission to Poland focused on the administrative feasibility of setting up a property tax system based on market value. The mission studied the organization of government and the way each level was funded. The laws outlining the funding of the self-governing units (Gminas) were of primary interest to the mission as were the laws governing land records and titling. The mission members did a detailed study of the sources of data available for implementing mass valuation appraisal techniques and also investigated the institution structures related to the development of a master cadastre. Table J summarizes this work. It shows both necessary and desired information to implement a mass valuation system and the institutions where the data can be found.

A master cadastre typically includes the following functional components: land records, maps, land titling; sometimes those are called the fiscal, physical and legal cadastre. Information from these cadastres is inputted into a property tax system. A property tax system includes legal, administrative, assessment/valuation and tax billing and collection components.

The legal component specifies the base, the coverage, the rate setting mechanism and sometimes which level of government should administer the system. The

assessment/valuation component determines who is to pay the tax and each taxpayer's share of the burden. The collection component computes taxes, enforces collection, receives tax payments, and places tax receipts in the appropriate treasury. The administrative component manages the entire process. It is particularly responsible for the management of information between other functional units of the system and to and from the taxpayer.

Property Tax Information System for Poland

Currently Poland has a property tax system but it is not a value-based system. It is based on square meter and the rate is set by the central government for different classes of properties (the system is detailed in Appendix 3).

In order to investigate the feasibility of converting to a value-based system the mission developed a data inventory of necessary and desired data (listed above in Table J) that would be needed as inputs to the system and then attempted to locate the data within the existing institutions we had discovered on the first mission. All of the information that would be necessary was found in departments at the self-governing (Gmina) or federal (Voivodship) level of government. The Department of Geodesy and Land Management manages the land register and the mapping function. It is a federal department and is found in all of the Voivodships in Poland. Likewise, the legal information and price is managed by the court system, which is part of the federal government. The tax department at the Gmina level, which administers the current law, had information that overlapped and complemented the information in the land registry, and the Gmina planning department had unique information about zoning restrictions. In order to see if the data we found was good enough to be the foundation of an ad valorem system, a formal market monitoring project was started during our second visit to Krakow in December of 1992. During that visit we established a formal market monitoring unit centered at the Krakow Real Estate Institute. A data collector and computer expert was hired to support the project. Data listing sheets were developed for apartments, land, and non-residential building and the process of collecting data for market transactions of these property types was begun.

The first data from the project are now available, detailing about 150 recent land sales and 86 apartment sales. Graphs 7A, B, and C show the land price gradient developed from these sales (in two and three dimensions). The price gradient shows a 10 to 1 ratio for land value from the center of the city to 20 km out. This is an exciting finding because it indicates that location is being capitalized into the value of the land and the magnitude of the capitalization effect is close to international standards.

We were also able to develop from the data a very good land and apartment valuation models using multiple regression analysis. These models could be used to price land and apartments for tax purposes.

The analysis we did with this data is also useful in identifying what data should be collected on a mass basis to support valuation. (Appendix 1 of the prototype Assessment manual describes fully the results of this project).

Although there is no law now in existence that allows for an ad valorem based property tax system, mission members felt that the infrastructure and data were available that would support such a system. The mission members envisioned that such a system for Poland should probably be administered by both the Voivodship and Gmina level and have a structure that is depicted in Chart A. Data on property information would be fed into a relational database that would pass subsets of information to and from the valuation unit, to and from the billing and collection unit and to and from the taxpayer. The database assessment and valuation unit should probably reside in the Department of Geodesy and Land Management; billing and collection and taxpayer information should stay at the Gmina level where they are currently located. A draft law and assessment manual was produced that thoroughly describes the proposed system.

The Institutional Rationale For An Efficient Property Tax System Within The Polish Environment

This section provides a general rationale for a tax on immovable property. It identifies the relative strengths and weaknesses of property taxes in comparison to other major types of taxes, and argues for a greater role for the tax in Poland.

Taxes and Tax Systems

The International Monetary Fund (IMF) defines taxes as "unrequited compulsory payments to government." In addition to property taxes, major types of taxes include

- Income taxes (including taxes on profits, capital gains, social security contributions, and payrolls of the work force)
- Domestic taxes on goods and services (including general sales, turnover, and value-added taxes)
- Excise taxes
- Taxes on profits of fiscal monopolies
- Taxes on specific services
- Taxes on use of goods, permission to use goods, or to perform activities
- Taxes on international trade and transactions (including import and export duties)

Taxes may be classified according to the levels of government that impose them and the bodies that administer them. Taxes also may be classified in other ways for other purposes.

Payment of a tax is an economic transaction in which the taxpayer gives up something of value (usually cash) and the government receives it. (Taxpayers may, in return, expect services, which governments are obliged to deliver if they wish to enjoy popular support.)

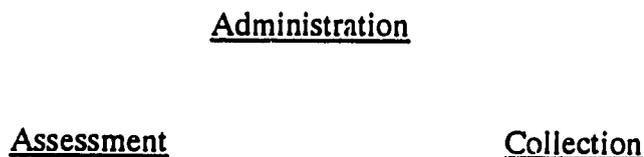
Thus there are two fundamental perspectives on taxation: that of the taxpayer, who also bears compliance costs, and that of the tax recipients. Taxation also involves administrative costs,

which may or may not be borne by the governments that receive revenue from a particular tax.

The term "system" is used in several contexts. A "tax system" is analyzed as part of a more general social or economic system. In this context, a system may be thought of as consisting of policies (as reflected in laws and customs), procedures, data, technology, and people. There is a time dimension as well; economic and social forces cause tax systems to change.

From another perspective, a tax system may be thought of as having three components: (1) administrative or internal control, (2) assessment, and (3) collection. The administrative component controls the other two. The assessment component determines who is to pay a tax and how much they are to pay. The collection component receives tax payments, accounts for them, and places tax receipts in the appropriate treasury. There are two fundamental variants in tax systems: self-assessed taxes, in which taxpayers make the initial determination of the amount of taxes due, and taxes assessed by the administration. Successful systems for taxing immovable property fall in the latter category. Income, value added, and sales taxes generally fall into the former category.

Figure 1 - Components of a Tax System



The setting of a tax system and its components provide a framework for evaluation. That framework consists of government organization and roles, the fiscal system (and the relative importance of taxes on immovable property), alternative types of property taxes, the tax base, responsibility for payment, and administration and coordination. First, a framework for evaluating taxes is presented, with emphasis on taxes on immovable property.

Standards for Evaluation

The decision to impose a particular tax and the reliance placed upon it will depend on cultural and economic factors, governmental structure, and the functions of government. Cultures and economies change. As recent events in central and eastern Europe make clear, attitudes about the proper functions of government change. These changes put pressure on the governmental structures and tax systems.

Economists, political observers, and others have proposed criteria for evaluating taxes in a changing environment. We discuss these and other criteria below, under the general headings of administrative, social justice, economic, and political autonomy and accountability. Some criteria overlap or are complementary. Other criteria conflict and are mutually contradictory. Certain of the criteria relate to the functions of government discussed in the next section. In the final analysis, they are based on common sense and human nature.

Administrative

Fundamentally, the cost of paying a tax (the amount of the tax plus compliance costs) should be less than the cost of avoidance. When this condition is met, a tax will generate revenue. The next question that might be asked is: Does or will the tax produce sufficient revenue? The purpose of most taxes is, after all, to raise revenue. (Taxes may have other purposes, to be discussed later.)

Revenue sufficiency depends on needs and other circumstances. Revenue also must be sufficient over time, leading to a concern about tax base buoyancy. Revenue sufficiency often is measured in terms of a multiple of administrative cost. For taxes on immovable property, the multiple usually ranges from 50 to 100. Looked at another way, the cost of administering a tax should be as low as possible. In other words, routine costs of administering a tax on immovable property, after the start-up period is complete, should amount to no more than 1 to 2 percent of revenue.

Regarding the concepts of **certainty** and **neutrality** (discussed below), the characteristics of a tax and its administration affect both avoidance, which is legal, and evasion, which is not. The United States Advisory Commission on Intergovernmental Relations (ACIR) has identified a related criterion, **legitimacy**, which is obtained when there is legal authority (or legal support) for the tax and its administration. Legal standards should be enforceable, and tax administrators should enforce the standards. Enforceability depends on the economy, cultural traditions, how political power is arrayed, available technology, and other factors. It does no good to have idealistic but unrealistic standards.

There are several related recurring themes. The idea of **simplicity** in taxation is one. **Openness** and well-informed taxpayers are others (see the discussion of accountability below). A simple tax is more readily understood and accepted by the public. Costs of administration and compliance are lower.

The ACIR describes **technical proficiency** as an important characteristic. In Property Appraisal and Assessment Administration, the IAAO has identified the skills, tools, and procedures necessary for effective administration of taxes on immovable property. Generally, compared to other taxes on income flows, the property tax is simple to administer, hard to avoid, and provides certainty.

Social Justice

Notions of social justice underlie several common evaluative criteria. Fairness, equity, and uniformity predominate. In reality, however, taxes often overburden the politically weak and favor the politically powerful.

Equity has two dimensions: vertical and horizontal. **Horizontal equity** is achieved when equally situated taxpayers are taxed equally. **Vertical equity** is achieved when dissimilar taxpayers are taxed proportionally. In the case of an ad valorem tax on immovable property,

horizontal equity is achieved when two properties that have the same market value have the same assessment. Vertical equity is achieved when assessments are the same percentage of value, regardless of the value of the properties.

Horizontal Equity

<u>Taxpayer</u>	<u>Property Type</u>	<u>Market Value</u>	<u>Assessed Value</u>
A	Residence	100,000	93,000
B	Residence	100,000	93,000

C	Residence	250,000	232,500
D	Store	250,000	232,500

E	Farm	500,000	465,000
F	Factory	500,000	465,000

Vertical Equity

<u>Taxpayer</u>	<u>Property Type</u>	<u>Market Value</u>	<u>Assd. Value</u>	<u>Ratio</u>
A	Residence	50,000	37,500	0.75
B	Residence	65,000	48,750	0.75

C	Store	90,000	67,500	0.75
D	Residence	200,000	150,000	0.75

E	Store	500,000	375,000	0.75

In practice, vertical equity is difficult to achieve. Assessments are often regressive. That is, the assessments do not represent current market value, with the result that lower-value properties pay proportionately more taxes than higher-value properties. Taxes also may be regressive when measured against the wealth of taxpayers or their ability to pay (see below). (The term "degressive" is a synonym for "regressive.")

Sometimes property taxes are designed to be progressive, the opposite of regressive. In practice, steeply progressive tax rates encourage concealment of property holdings and the division of properties into smaller components.

In evaluating the effects of a tax it is important to consider the **incidence** of the tax. Tax incidence has to do with who ultimately bears a tax as opposed to the person who initially pays it. For example, the owner of an apartment block may initially pay an immovable property tax, but if that owner can pass along the tax payments to tenants in the form of higher rents, the tenants ultimately bear the tax. The analysis of property tax incidence is very complicated. At first glance, property taxes appear inherently regressive, and out-of-date valuations tend to aggravate any regressivity. However, more careful analyses from a national perspective that also consider property types suggest that property taxes are proportional, if not progressive.

Two common standards that often conflict are **ability to pay** and **benefits received** (discussed below). Ability to pay is measured by available income or savings. A tax will not raise sufficient revenue if taxpayers do not have money to pay it. The wealthier the taxpayer, the easier it is to pay. The property tax is a tax on wealth, and wealth represents an ability to produce income. Of course, property assets cannot always be readily converted to cash.

A general property tax--a tax on the value of all real (immovable) and personal (movable) property--arguably meets the ability to pay criterion, because such a tax subjects all wealth to taxation. A tax on immovable property alone, the most common form of property taxation, does not compare as favorably, because a considerable percentage of all wealth is untaxed. However, a tax on immovable property is easier to administer fairly because much movable property is difficult to discover and value accurately.

Recognizing that a uniform tax on immovable property can produce financial hardships, the ACIR has articulated a "compassion" standard. Tax systems should be designed to reduce extraordinary tax burdens.

Ability to pay relates to the distribution role of government discussed in the next chapter. Income redistribution is not usually an objective of property taxation.

However, property taxes can be designed to discourage accumulations of property (wealth) or break up large land holdings through progressive rate structures and gains taxes. Such objectives have important economic ramifications, as noted below.

Taxpayers object less to taxes if they perceive benefits from the taxes, hence the "benefits received" standard (also known as the "benefit principle"). The real or perceived links between taxes paid and benefits received relate to tax competition issues discussed later. In any event, local taxes on immovable property often score well against the benefits received standard.

Economic

Taxes can influence economic behavior. How they do so is of interest. Perhaps the chief economic concern is "neutrality." A closely related concern is "efficiency," which is discussed in the next paragraph. A "neutral" tax is one that does not distort economic decisions. A good example of such a tax is a uniform tax on the rental value of land. Because the supply of land is relatively fixed, imposition of a land tax offers no incentive to use less land or to use land less intensively. Broad-based, proportional taxes tend to be neutral taxes. Taxes that inspire widespread avoidance (legal activities designed to reduce taxes) and evasion (illegal activities designed to reduce taxes) are not neutral.

Economic theory holds that the general welfare of society is maximized when the factors of production (labor, capital, management, and land) are used efficiently. Welfare gains can be realized if consumers are in a position to choose the level and mix of goods and services that best suit them. Demands for goods and services vary among individuals and communities. Local governments usually have major responsibilities in providing services (the allocation role discussed in the next section). If consumers' choices regarding governmental services are to be efficient, they must reflect the economic costs of alternative levels of consumption (the benefit principle). For taxes to be used effectively as a pricing or rationing mechanism, they must be

benefit taxes: taxes whose incidence corresponds to the distribution of the benefits the taxes provide. No tax performs this role perfectly, but at the local level a property tax is more effective than the alternatives.

Taxes also are enlisted to achieve such economic development objectives as increased employment, savings, and investment. It should be pointed out that both tax incentives for preservation, conservation, and similar purposes, and tax "loopholes" distort economic activity--the former deliberately and the latter accidentally.

Advocates of site value taxation argue that taxing the value of buildings discourages investment in buildings, in violation of the efficiency principle. There is little convincing empirical evidence to support this contention, and the theoretical case ignores the benefit principle.

Political Autonomy and Accountability

Linking taxes with the provision of services promotes accountability. Accountability is achieved when the level and mix of government spending and the distribution of its costs are decided in a climate of full disclosure by the elected representatives of a jurisdiction. Adequate disclosure also requires adherence to professional accounting and auditing standards.

It is human nature to want to have some control over one's environment. This need is at the root of the desire for local autonomy and "no taxation without representation." A local property tax is an excellent way to meet this need.

The ACIR considers openness an essential characteristic of a politically acceptable property tax. To satisfy the criterion of openness, the tax administration must provide taxpayers the information they need to judge the fairness of their assessments.

Taxpayers must receive notice of assessments and be offered simple, informal appeal procedures. Taxpayers should be helped to understand the property tax system, how

their property was appraised, and how the valuation of their property compares to valuations of similar properties.

Conclusion for Poland Relative to Utilization of the Property Tax

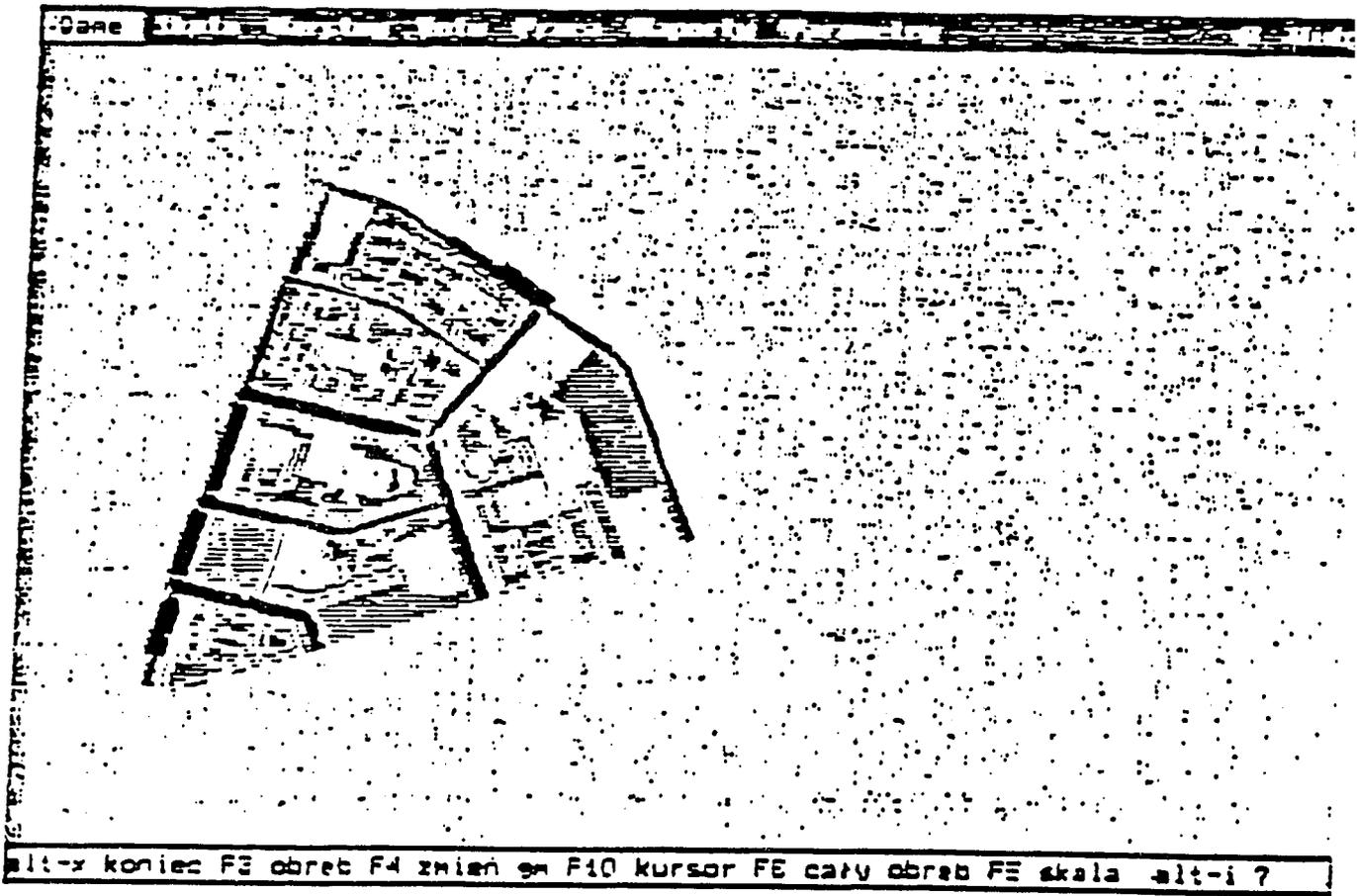
The discussion above highlights many of the advantages of a strong property tax. For a country in transition, like Poland, many of these arguments are strengthened. One of the primary objectives of countries in transition is that the overall tax structure supports rapid accumulation of capital, so that private and public investment funds are available to develop key infrastructures such as housing, convert existing industry, use modern technology, and invest in human capital.

Having a good source of local revenue can support these objections. It allows for decentralization of services to the lowest possible level of government. This takes the burden off the central government and allows for more reasonable tax rates to be imposed via the various taxes based on income and general economic activities. This in itself has another advantage: it makes the taxes based on economic activities and income easier to collect. This is important in transition economies where much economic activity can easily be hidden. A revenue source based on a property tax is very reliable. The tax is almost impossible to avoid as the tax base is visible. It is also a source of revenue that is not competitive with taxes that support higher levels of government. It is also a good way to capture the gains from local development, which may initially need subsidies by local government, (such as favorable long term leases on land given to developers). The burden of the tax can also be targeted via exemptions so that it imposes no hardship on groups needing protection. Finally, if the tax is value based, it provides a source of increasing revenues as the economy grows even when the rate is fixed by law.

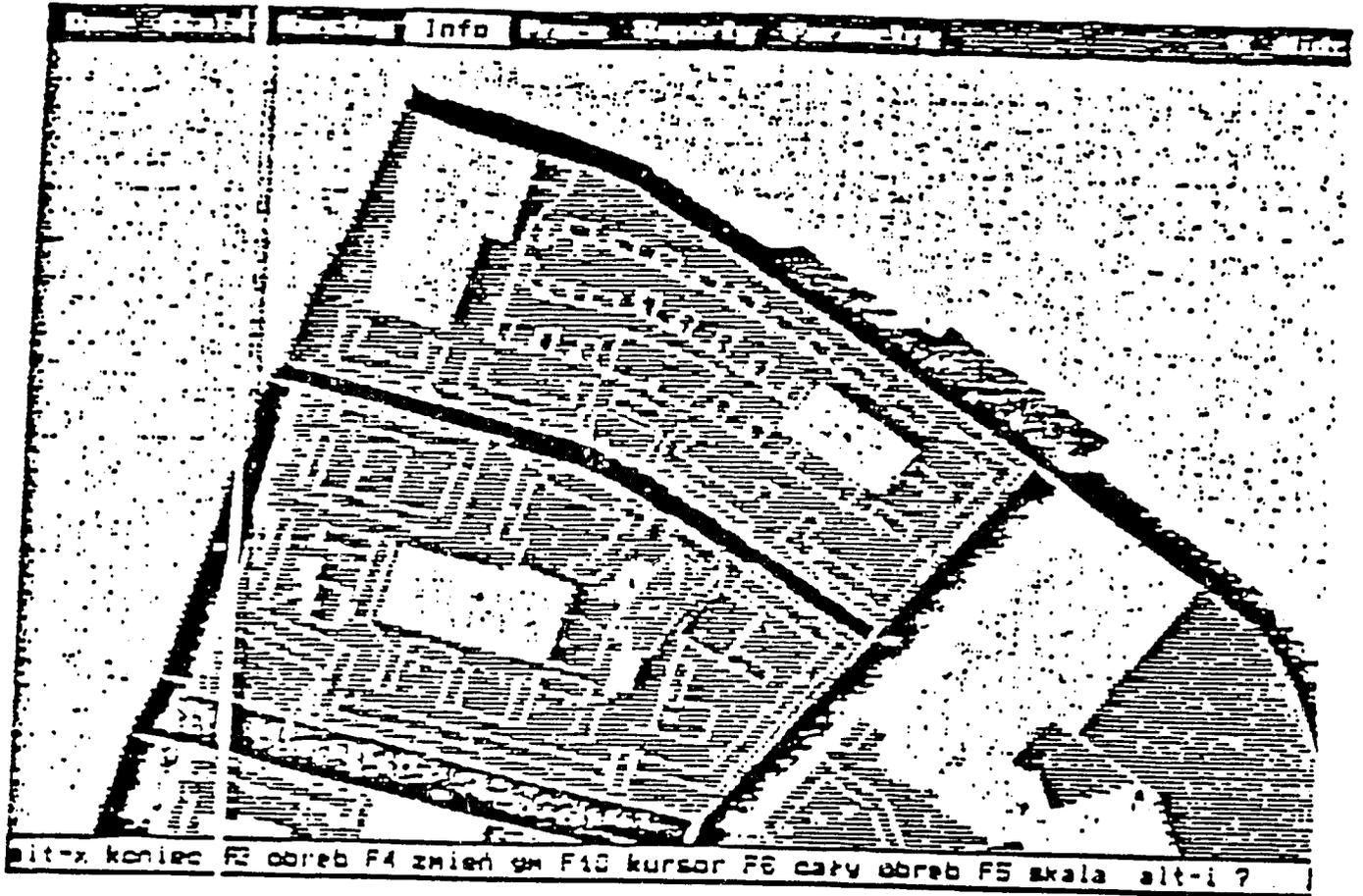
For the above reasons, we would argue for a greater utilization of the property tax in Poland as well as suggest that the base of the tax be ad valorem and based on the market transactions extrapolated to all properties using mass appraisal techniques.

Marketing monitoring programs could be set up throughout Poland such is now operating in Karcow Poland (USAID Funded) that could provide the market data to drive the system.

MAP 1
Output of Kracow GIS System



MAP 2
Output of Kracow GIS System



MAP 3

Output of Krakow GIS System

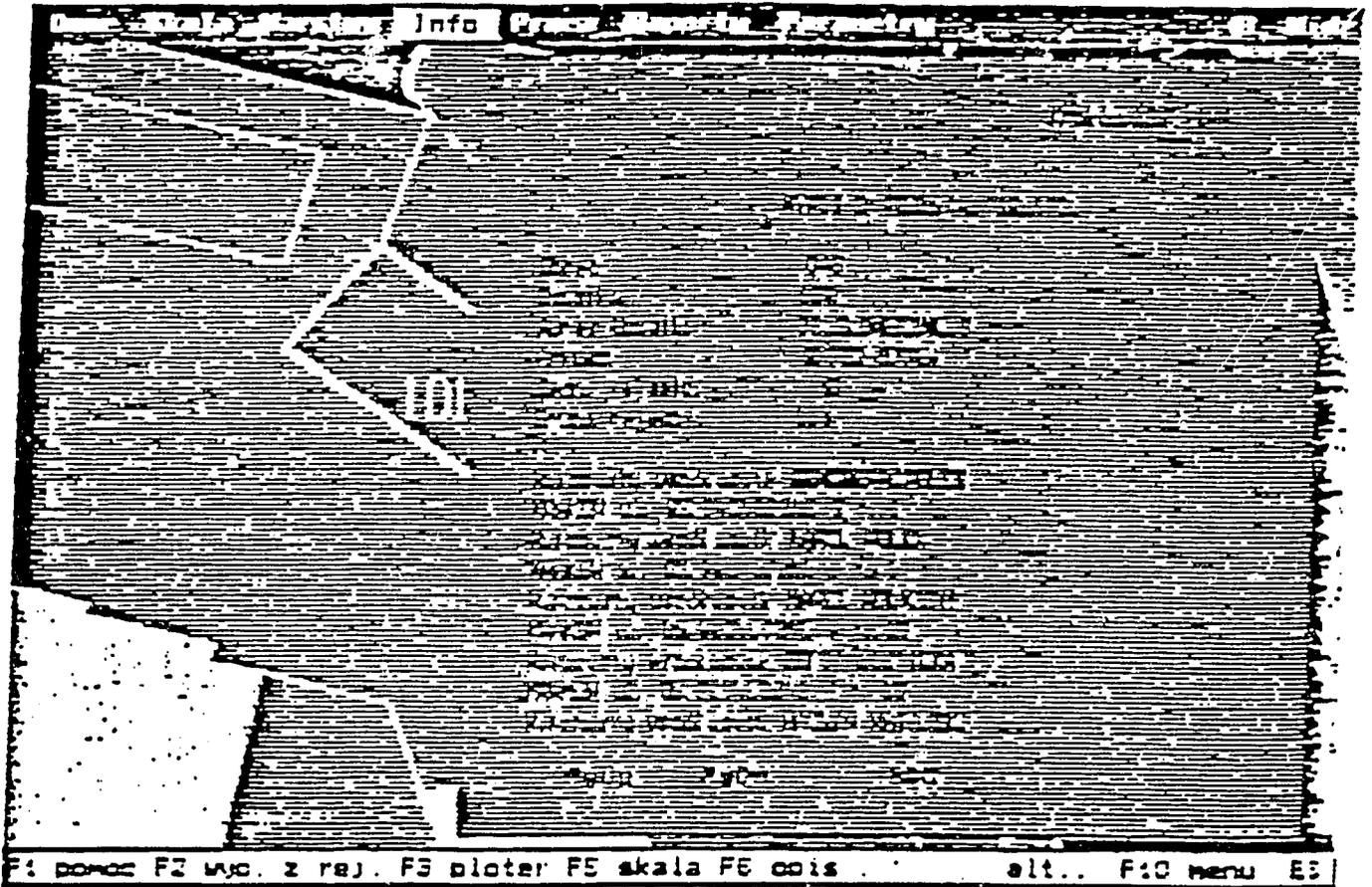


TABLE G
Multi-Use Database

Data Report

	P R O P E R T Y	U S A G E	L O C A T I O N	A R E A	P R I C E	T R A N S D T N	C U R R E N C Y
1	2	2	5	27	13640	0	0
2	2	2	11	42	20910	0	0
3	2	2	13	47	27270	0	0
4	2	2	10	47	21820	0	0
5	2	2	13	35	16360	0	0
6	2	2	2	136	67270	0	0
7	2	2	3	90	55000	0	1
8	2	2	4	38	20000	0	1
9	2	2	2	110	54550	0	0
10	2	2	3	98	53640	0	0
11	2	2	2	80	40910	0	0
12	2	2	2	92	50000	0	0
13	2	2	9	73	36360	0	0
14	2	2	3	70	32000	0	1
15	2	2	16	28	12730	0	0
16	2	2	3	38	20450	0	0
17	2	2	9	50	25450	0	0
18	3	3	7	750	15000	0	1
19	3	3	13	1090	7270	0	0
20	3	3	13	330	3180	0	0
21	3	3	16	2350	6800	0	0
22	3	3	16	8350	10640	0	0
23	3	3	13	2400	15000	0	1
24	3	3	15	1000	6500	0	1
25	3	3	9	1600	20360	0	0
26	3	3	15	700	38180	0	0
27	3	3	14	5900	214550	0	0
28	3	3	15	1500	5450	0	0
29	3	3	15	2000	16360	0	0
30	3	3	10	1000	12000	0	1
31	3	3	2	5700	54550	0	0
32	3	3	14	600	6360	0	0
33	3	3	15	1500	81820	0	0
34	3	3	12	2000	109090	0	0
35	4	4	1	140	63640	0	0
36	4	72	30	2700	318000	0	0
37	4	73	10	840	70000	0	1
38	4	2	3	660	105000	0	1
39	4	2	1	450	250000	0	1
40	4	5	2	65	50000	0	1
41	4	5	1	140	68730	0	0
42	4	41	2	60	1090	1	0
43	4	41	0	50	1360	1	0

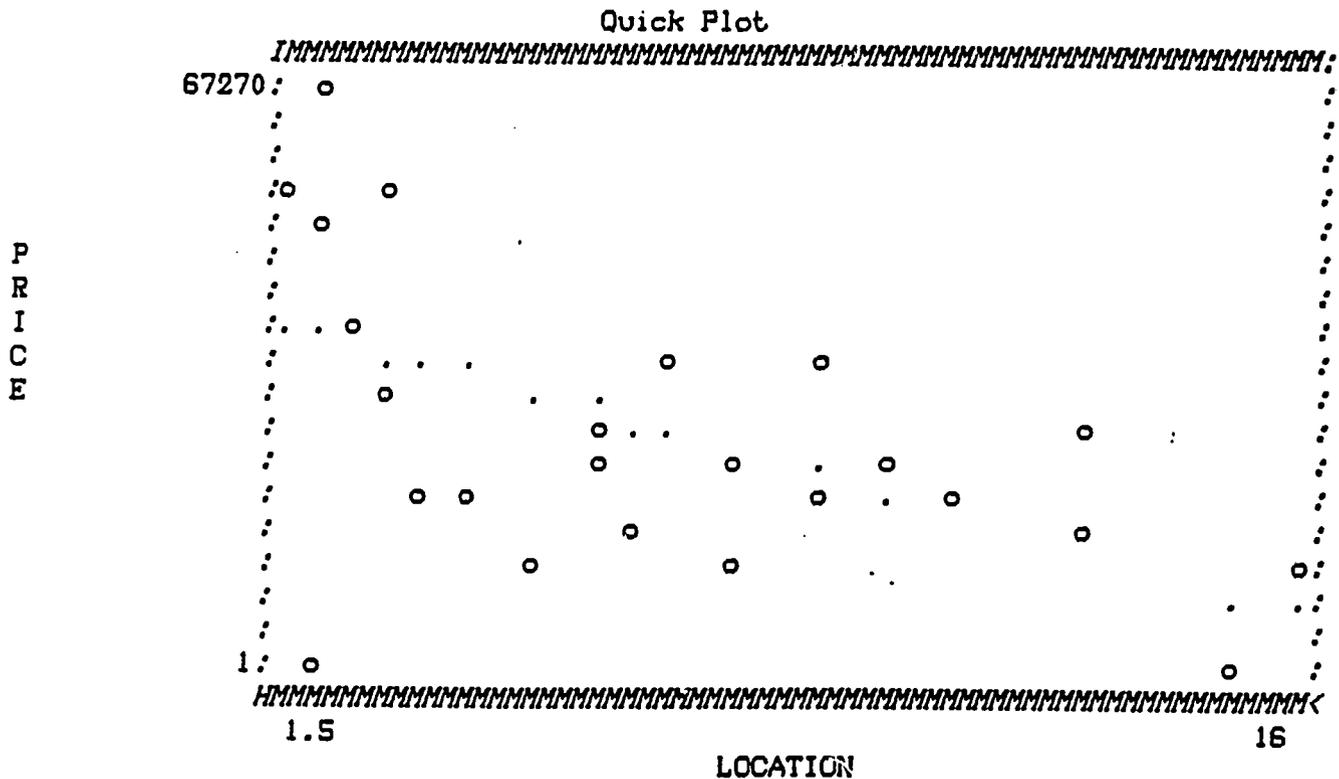
TABLE G
Multi-Use Database
 (cont.)

Data Report

	P R O P E R T Y	U S A G E	L O C A T I O N	A R E A	P R I C E	T R A N S A C T I O N	C U R R E N C Y
44	4	41	3	20	91	1	0
45	4	41	1	50	450	1	0
46	4	41	2	32	58	1	0
47	4	41	1	48	390	1	0
48	4	41	2	34	200	1	0
49	4	41	2	202	1470	1	0
50	4	41	6	110	400	1	0
51	4	41	4	137	500	1	0
52	4	41	7	80	255	1	0
53	4	41	4	600	2180	1	0
54	4	41	11	45	82	1	0
55	4	41	10	20	55	1	0
56	4	41	5	240	327	1	0
57	4	41	0	400	2180	1	0
58	4	41	1	250	795	1	0
59	2	41	2	110	727	1	0
60	2	41	1	150	1150	1	0
61	2	21	1	110	600	1	1
62	2	21	1	55	250	1	1
63	2	21	1	60	318	1	0
64	2	21	1	200	727	1	0
65	2	21	7	110	455	1	0
66	2	21	5	140	455	1	0

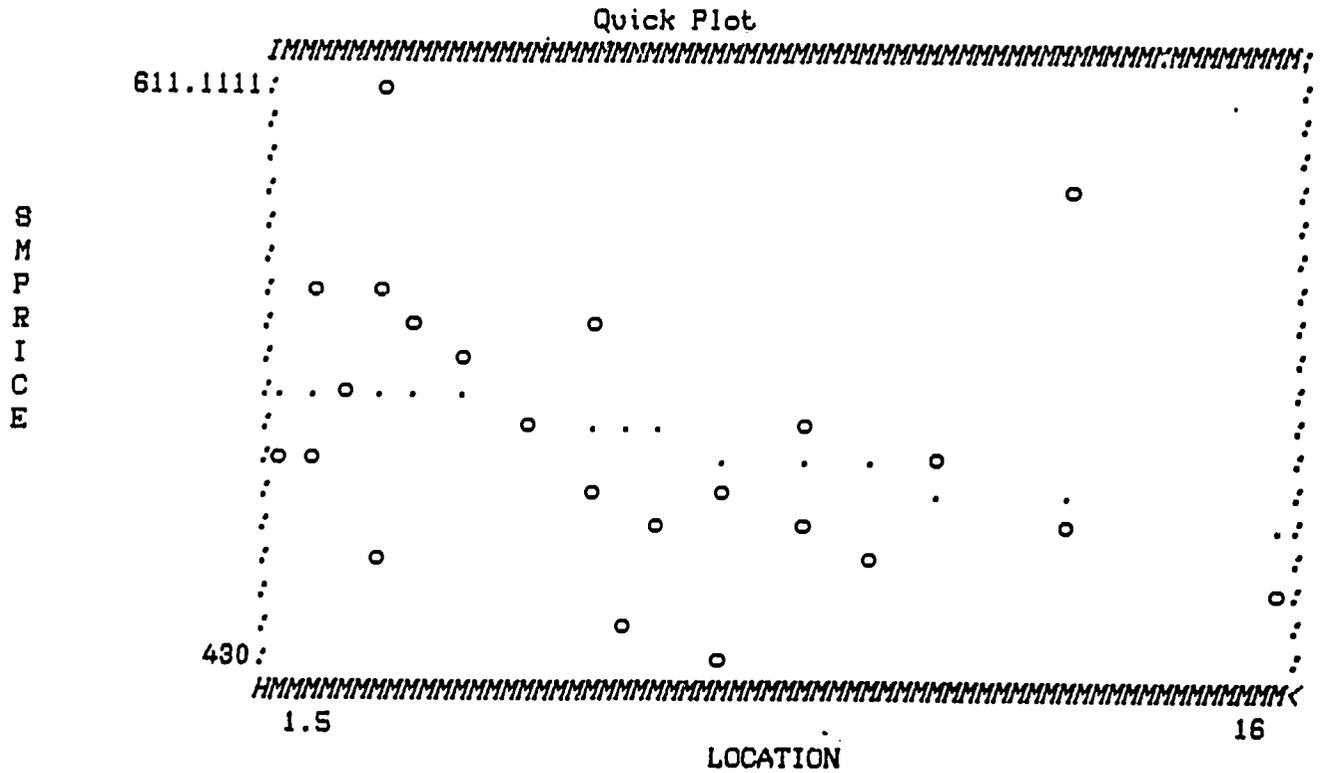
25

GRAPH 3
Apartment Sales
Sales Gradient



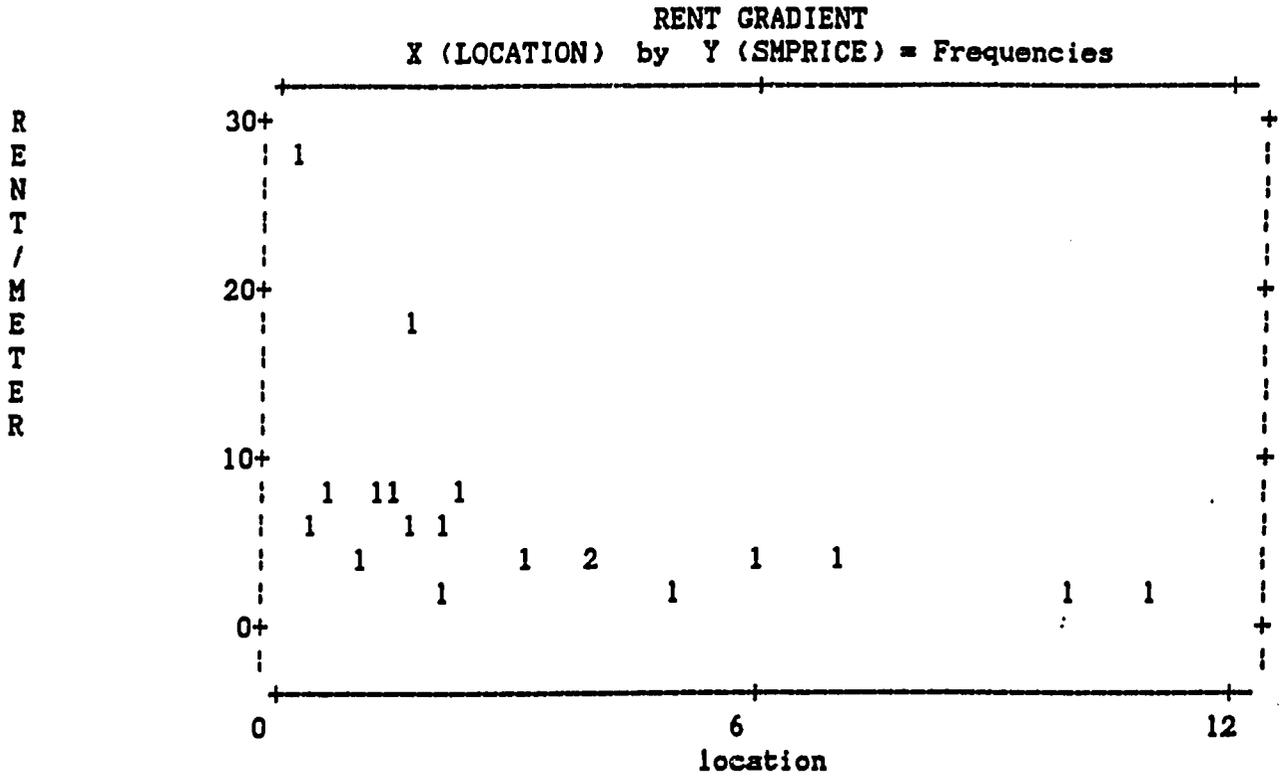
Equation: $Y = 43219.57 - 2222.61 * X$; Correlation: $-.5592912$
 Enter DY to continue, or EBC to quit --

GRAPH 4
Apartment Sales
PSQM GRADIENT



Equation: $Y = 523.7057 + -9.419019 * X$; Correlation: $-.315078$
 Enter *DY* to continue, or EBC to quit --

GRAPH 5
Stores
Rent Gradient



Enter *DY* to continue, or *ESC* to quit —

Table H
Apartment Database

Scatter Plots (Data List)

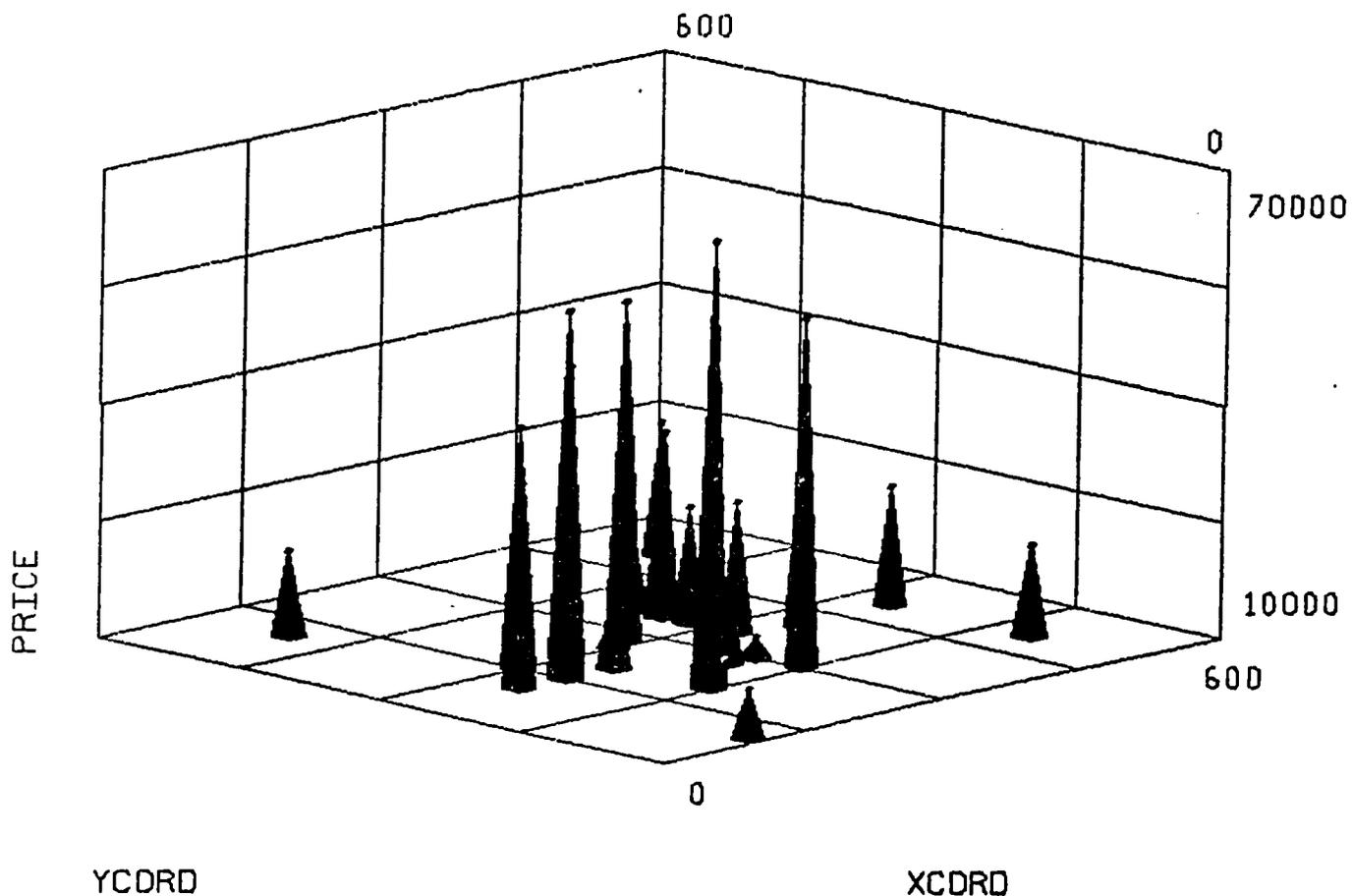
DDDC:\poland\aptsales

Row Label	Row	NIERUCH.	USAGE	LOCATION	AREA	PRICE
Prokocim	1	5	2	5	27	13640
os. Nispod	2	2	2	11	42	20910
os. Na Ska	3	2	2	13	47	27270
os. Strusi	4	2	2	10	47	21820
os. Na Ska	5	2	2	13	35	16360
Zulawskieg	6	2	2	2	136	67270
Krolewska	7	2	2	3	90	55000
Olsza	8	2	2	4	38	20000
Lobzowska	9	2	2	1.5	110	54550
Lea St.	10	2	2	3	98	53640
Grzegorzec	11	2	2	2.5	80	40910
Slowackieg	12	2	2	2	92	50000
os. Oywizj	13	2	2	9	73	36360
Wroclawska	14	2	2	3	70	32000
os. Na Sto	15	2	2	16	28	12730
Falata St.	16	2	2	3.5	38	20450
os. tyslac	17	2	2	9	50	25450
nowa huta	18	2	21	8	29	13000
nowa huta	19	2	21	6.6	37	16500
nowa huta	20	2	21	9	44	21000

Enter *DY* to continue, or *ESC* to quit —

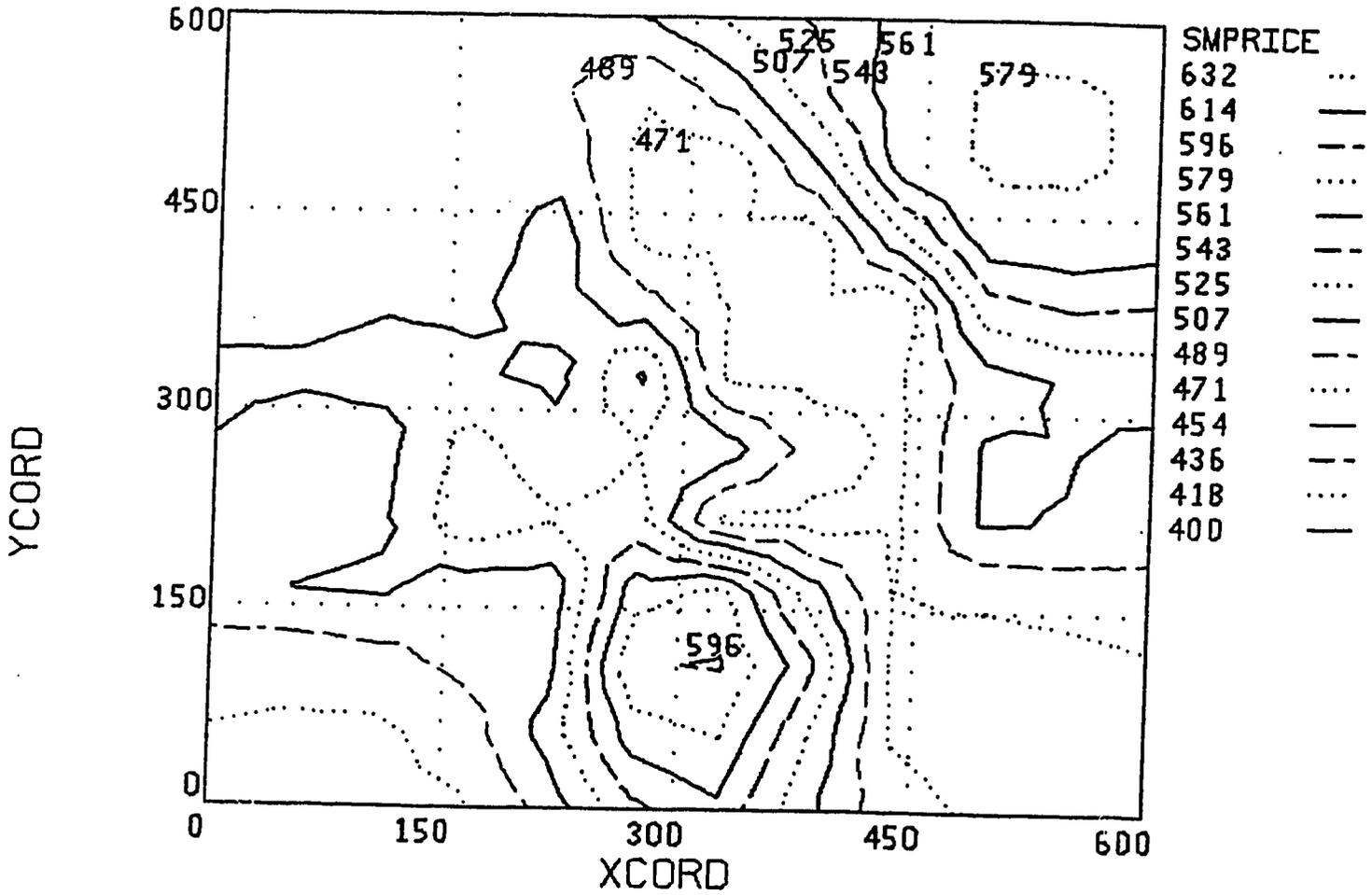
3DGRAPH 6

\$/M² by X, Y Coordinate

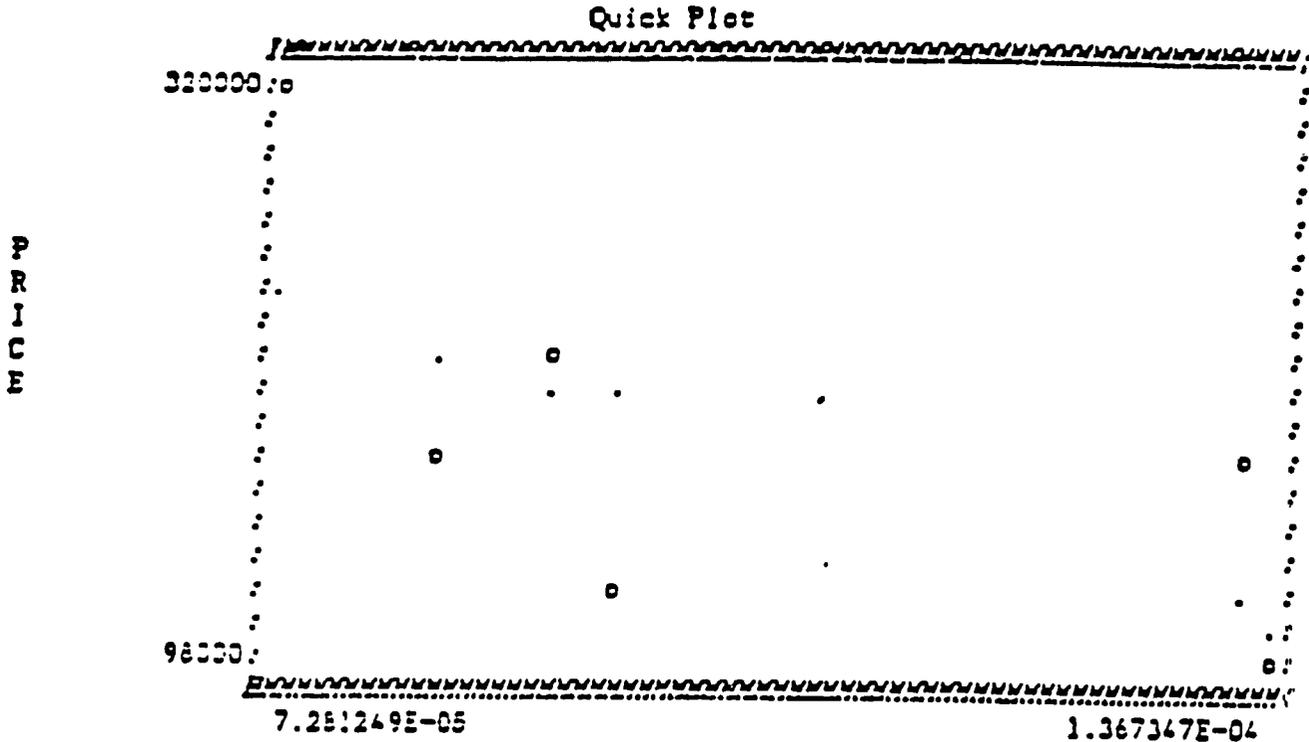


GRAPH 7
P/M² Isocurves

Contours of SMPRICE



GRAPH 8
 ETR by Value
 Residential



Equation: $Y = 380757.4 - 1.936745E-09 X$;
 Enter *DY* to continue, or *ESC* to quit —

ETRI
 Correlation: $-.6596164$

TABLE J

Property, Ownership & Price Information

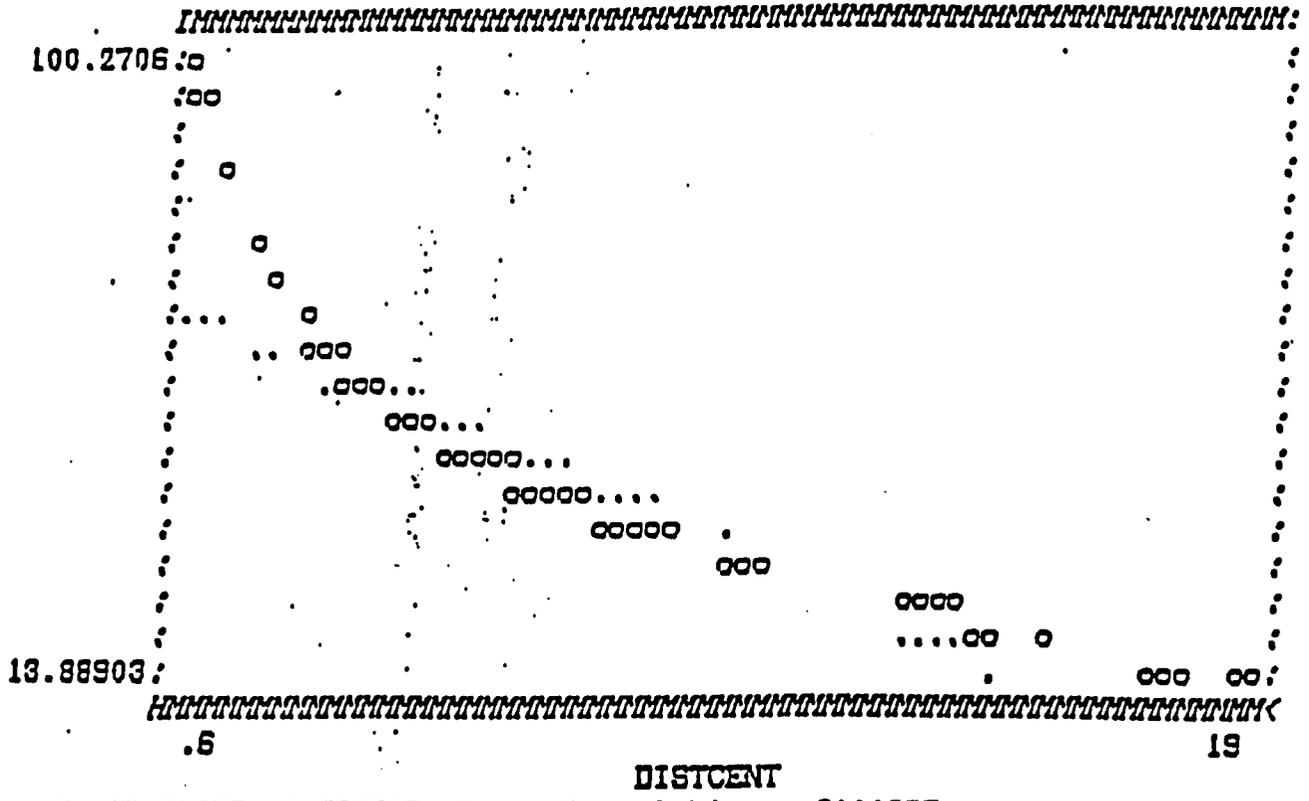
Info. Needed (N) Desired (D)	Info.	Land Registry	Court Legal Registry	Treas. Dept.	Gmena Tax Dept.	Gmena Planning	Prts. Services
D	Address	x	x	x	x		
D	Parcel ID	x			x		
N	Map ID	x					
D	XY Coordinates	x					
	Owner's Name/user	x			x		
	Taxpayer ID	x			x		
N	Taxpayer Name	x			x		
D	Date of Sale	x	x	x			
N	Sales Price (Owner)		x				
	Notary Declaration	x	x	x			
D	Treasury Conclusion			x			
N	Land Area	x			x		
D	Land Use	x			x		
D	Land Zoning Permitted					x	
D	Soil Type	x					
D	Sewage						
D	Water						
D	Street Frontage	x			x		
N	Bldg. Area	x			x		
N	Bldg. Type	x					
D	# Floors	x					
D	Location on Floor						
N	Yr. Of Construction	x					
D	Phone						
D	# of Rooms						
	Prop. Tax Billing				x		

(2)

GRAPH 7A
Land Price Index for Krakow

Quick Plot

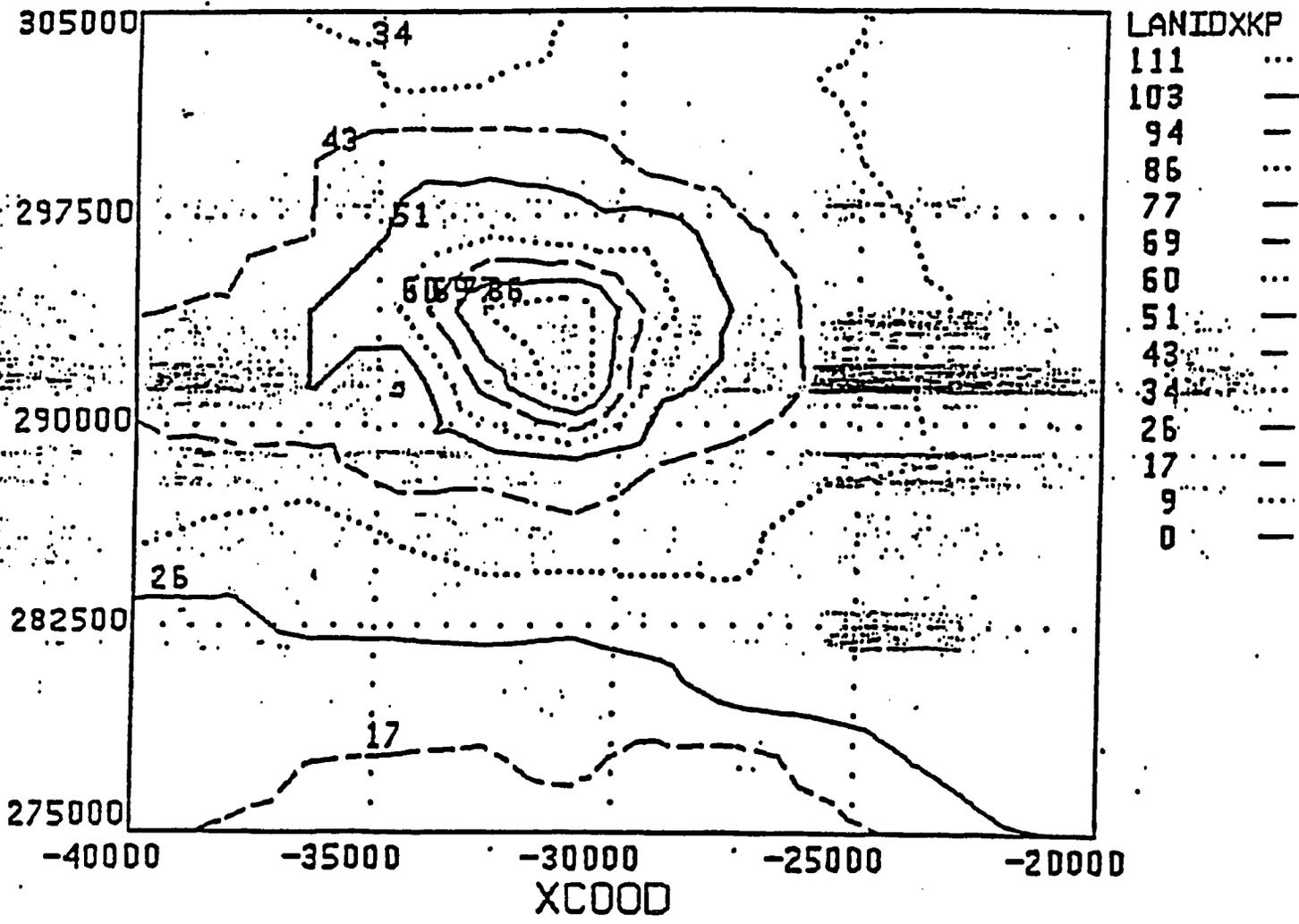
L
A
N
D
I
N
D
E
X
P



Equation: $Y = 67.91079 - 3.599598 \cdot X$; Correlation: $-.9101867$
Enter DY to continue. or EEC to quit —

GRAPH 7B
 Land Price Index for Krakow

Contours of LANIDXKP



GRAPH 7C
Land Price Index for Krakow

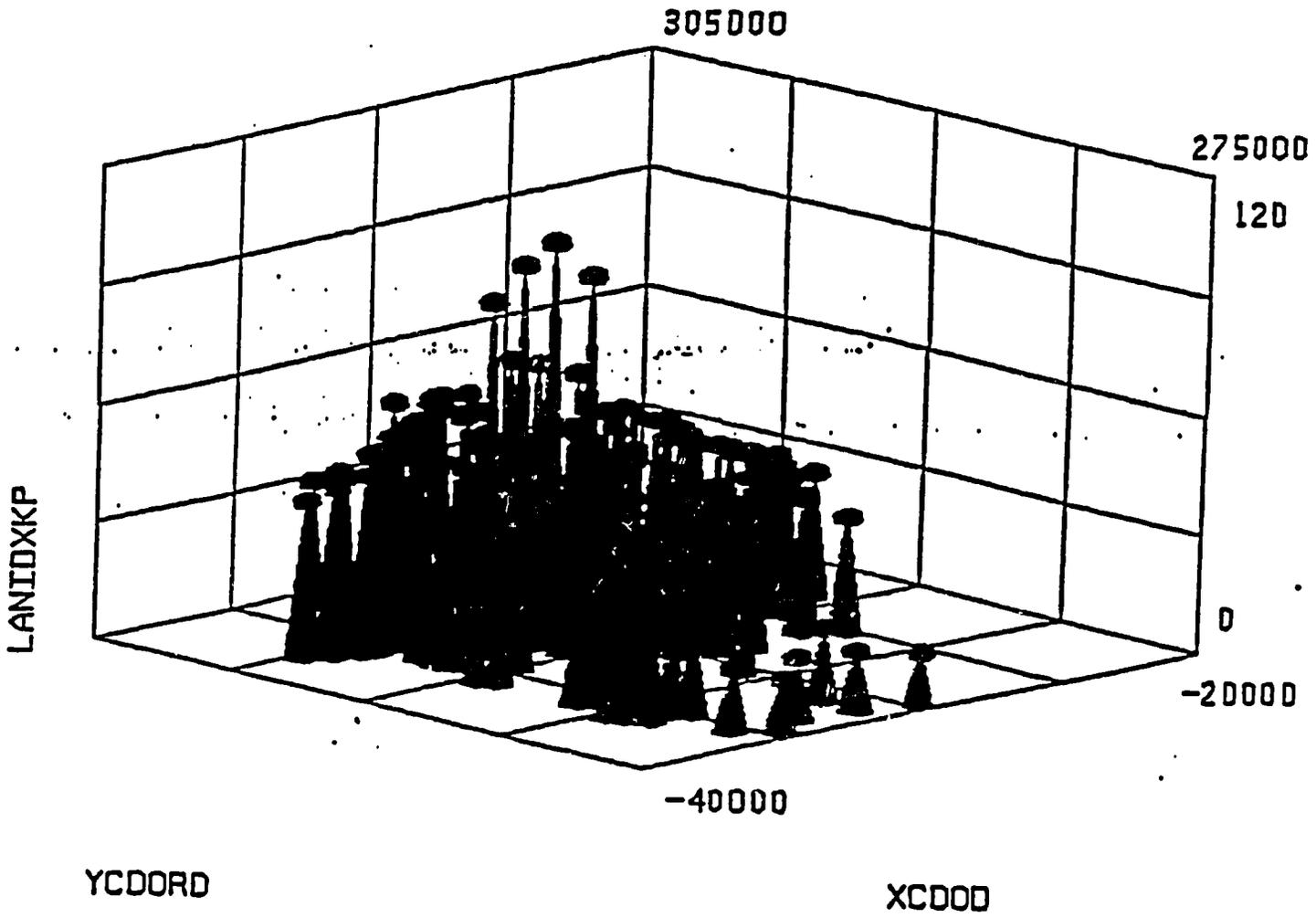
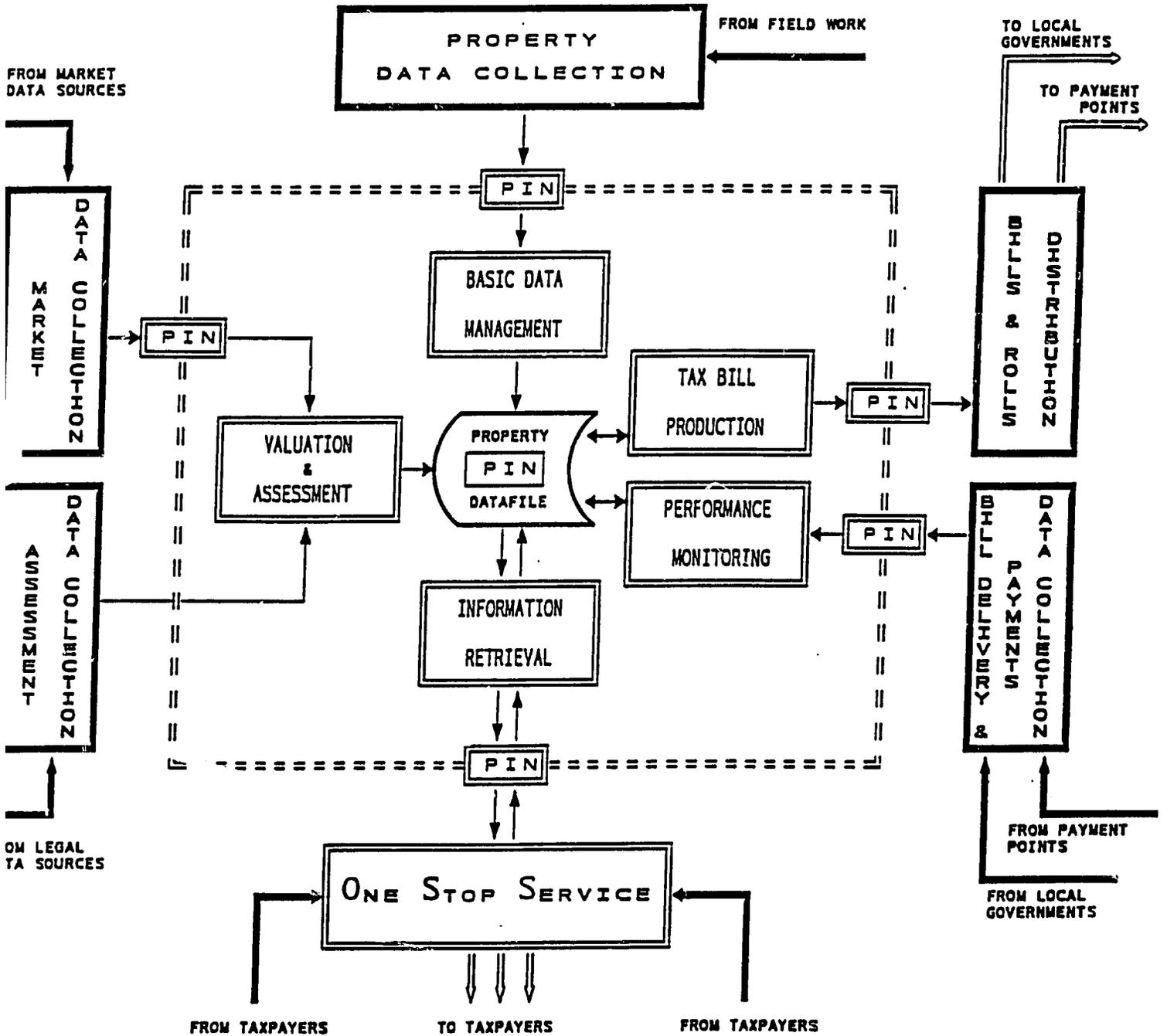


CHART A

PROPERTY TAX INFORMATION MANAGEMENT SYSTEM



PROTOTYPE MANUAL

For an Ad Valorem Property Tax in Poland

* * * * *

Contents

Preface

1. Introduction

- 1.1 Advantages of a Tax on Capital Value
- 1.2 Underlying Principles
- 1.3 System Overview
- 1.4 Organizational Structure
- 1.5 Annual Tax Cycle
- 1.6 Legal Framework

2. Management

- 2.1 Planning
 - 2.1.1 Strategic Plans
 - 2.1.2 Annual Operational Plans
 - 2.1.3 Project Plans
- 2.2 Estimating Resource Requirements and Budgeting
 - 2.2.1 Budgeting
 - 2.2.2 Staffing

2.2.3 Computing Resources

2.2.4 Office Facilities, Furniture, Equipment, and

Technical Library

2.3 Quality Assurance

2.3.1 Overview

2.3.2 Professional Ethics

2.3.3 Assessment Standards

2.3.4 Security Procedures

2.3.5 Ratio Studies

2.3.6 Procedure Audits

2.4 System Development

2.5 Project Management

2.6 Data Management

2.6.1 Data Needs Analysis

2.6.2 Data Collection

2.6.3 Data Storage and Retrieval

2.7 Personnel Management

2.7.1 Organization

2.7.2 Employee Selection

2.7.3 Employee Development

2.7.4 Compensation

2.7.5 Internal Communications

3. Property (Parcel) Identification

3.1 Processing Source Documents

3.2 Cadastral Mapping

3.3 Assignment of Parcel Identifiers

4. Taxpayer Identification

5. **Property (Parcel) Characteristics Inventory**
 - 5.1 **Location and Site Characteristics**
 - 5.2 **Improvement Characteristics**
 - 5.3 **Administration of Field Inspections**

6. **Sales Data Processing and Analysis**
 - 6.1 **Processing Source Documents**
 - 6.2 **The Sales File**
 - 6.3 **Stratification and Analysis**
 - 6.4 **Time Analyses**

7. **Valuation**
 - 7.1 **Mass Appraisal Modeling**
 - 7.1.1 **Overview**
 - 7.1.2 **Sales Comparison Models**
 - 7.1.3 **Other Approaches to Value**
 - 7.1.4 **Considerations by Property Type**
 - 7.2 **Model Application and Review**
 - 7.3 **Communicating the Results**

8. **Exemption Administration**

9. **Roll Preparation, Interface with the Tax Collection System, and Other Interfaces**
 - 9.1 **Roll Preparation**
 - 9.2 **Value Coordination, Interface with the Tax Collection System, and Other Interfaces**

10. Public Information and Relations

11. Oversight: Control and Appeals

11.1 Introduction

11.2 The Board of Equalization

11.3 Local Appeal Boards

Appendix 1 - Explanation of Real Property Valuation

Appendix 2 - Real Property Taxation in Poland

Appendix 3 - Analysis of Land and Apartment Sales Data

Appendix 4 - Exceptional Properties

Appendix 5 - Policy Option and Recommendation for Poland

**Appendix 6 - Analysis of the Current Law on Agriculture, Forest, Urban Property and
Land**

Preface

This manual has been prepared to support a proposed tax based on the capital value of real property in Poland. It provides general recommendations for the administration of such a tax. The intended audience includes central, regional, and local property tax administrators.

In its present form, the manual is skeletal except for a few passages suggestive of the materials in a fully developed working manual. Substantial revisions will be necessary as the Polish property tax system becomes better defined.

This draft of the manual does not cover property tax collection and enforcement. It also does not include the taxation of vehicles and dogs.

Introduction

Those who administer the tax will be better prepared if they understand the rationale for a tax on the capital value of property, the role of this tax in the revenue system as a whole, and the structure of the property tax system.

1.1 Advantages of a Tax on Capital Value

Public finance scholars generally believe that a country should have a diversified revenue system, that is, one with a variety of taxes and other sources of revenue. A tax on the capital value of immovable property can be an important part of such a system.

A tax on the capital value, or current market value, of immovable property has certain advantages. It has a stable and reliable base. It is relatively easy to administer. The base is easily identified, making the tax difficult to avoid. (In contrast, income and transaction-based taxes can be difficult to administer, especially when underground economies are strong.) The yields of property taxes tend to fluctuate less during economic swings; at the same time, frequent reappraisals can provide a buoyant base, especially during periods of economic growth or inflation. Finally, property value can be a good indicator of a taxpayer's wealth or ability to pay.

A tax on the capital value of immovable property is especially suitable as a source of revenue for local governments. A dedicated source of revenue promotes local autonomy. The visibility of property taxes focuses attention on the overall quality of governance and promotes accountability. The tax captures revenues for local government from increases in land value that may have been created in part by public expenditures.

Information collected in the course of administering taxes on immovable property becomes part of a valuable fund of information that has many governmental

and private uses. If publicly available, this information can play a key role in the development of orderly real property markets.

1.2 Underlying Principles

The proposed property tax would be a tax proportional to the market value of immovable property. It would be paid by the owners of the property (or the occupants or beneficiary if the owners cannot be identified).

Uniformity is a key principle of taxation. A policy of uniformity builds popular support for government. The proposed tax system should therefore be designed and administered with uniformity in mind. Uniformity is achieved when taxpayers are treated fairly, appraisals are accurate, and collection rates are high.

A policy of uniformity can have a fiscal benefit. The most vigorous objections to taxes usually come from owners of overvalued properties, causing governments to limit tax rates. Undervalued properties then pay less tax than they would be willing to tolerate. Consequently, total property tax revenue is less than would be the case with a uniform tax.

A policy of uniformity also makes general economic sense. Taxes can influence economic behavior. Behaviors that distort the economic decisions essential to orderly markets, or are contrary to other societal goals, are to be discouraged. Taxes that are "neutral" encourage economic efficiency. A neutral tax is one that does not distort economic decisions. Broad-based, proportional taxes tend to be neutral taxes. Taxes that inspire widespread avoidance (legal activities designed to reduce taxes) and evasion (illegal activities designed to reduce taxes) are not neutral. (The current taxes imposed on surface area are highly non-neutral. For example, retaining the existing rate differentials may steer investment from industry and business to housing.)

When these standards are applied, current market value is the best basis for a property tax in a market economy. Revenue needs change annually. So do property values. Some properties increase in value and others decline. A uniform relationship between property value and property taxes can be maintained only if current market value is the basis of assessments. For most taxpayers, current market value is also a

reasonable measure of ability to pay and benefits received. The International Association of Assessing Officers advocates current market value assessment in its policy statements.

Market value is defined as "the most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus." Prices established in open-market, arm's-length transactions provide good evidence of market values. However, although price and other details of a sale may be historical facts, market value is essentially a matter of informed opinion. A major responsibility of the property tax administration is to develop those opinions of value, or appraisals.

The local nature of the property tax can help consumers make economically efficient choices about the mix of governmental services. Because demands for goods and services vary among individuals and communities, local governments can tailor their services to match consumers' desires and use local taxes and revenues as quasi-prices for those services.

For taxes to be used effectively as a pricing or rationing mechanism, they must be benefit taxes: taxes whose incidence corresponds to the distribution of the benefits paid for by the specific taxes. No tax performs this role perfectly, but at the local level a property tax is more effective than the alternatives.

Linking taxes with the provision of services promotes accountability. Accountability is achieved when the level and mix of government spending and the distribution of its costs are decided in a climate of full disclosure by the elected representatives of a jurisdiction.

Openness is an essential characteristic of a politically acceptable property tax. To satisfy the criterion of openness, the tax administration must provide taxpayers the information they need to judge the fairness of their assessments. Taxpayers must receive notice of assessments and be afforded simple, informal appeal procedures. Taxpayers need to understand the property tax system, how their property was appraised, and how their appraisal compares to the appraisals of similar properties.

The property tax should be kept as simple as possible, consistent with other goals. A simple tax is more readily understood and accepted. Costs of administration and compliance are lower.

The property tax must have legitimacy. That is, legal authority for the tax and its administration must exist. Legal standards must be enforceable, and the tax administration must enforce them. See section 1.4 for a discussion of the legal framework.

The cost of administering the property tax should be as low as possible. Taxpayers' costs of compliance should also be as low as possible. Appropriate use of technology can help achieve the greatest possible valuation accuracy and administrative efficiency.

1.3 System Overview

The Polish property tax system is part of the nation's local governmental structure. The basic purpose of that structure is to respond to societal needs and wants. This includes a successful transition to a market economy.

A property tax system is made up of policies (as reflected in laws and customs), procedures, data, technology, and people. There is a time dimension as well. The system can also be thought of as a series of functional modules: basic data management, valuation and assessment, tax bill production, performance monitoring, and information retrieval (see chart A).

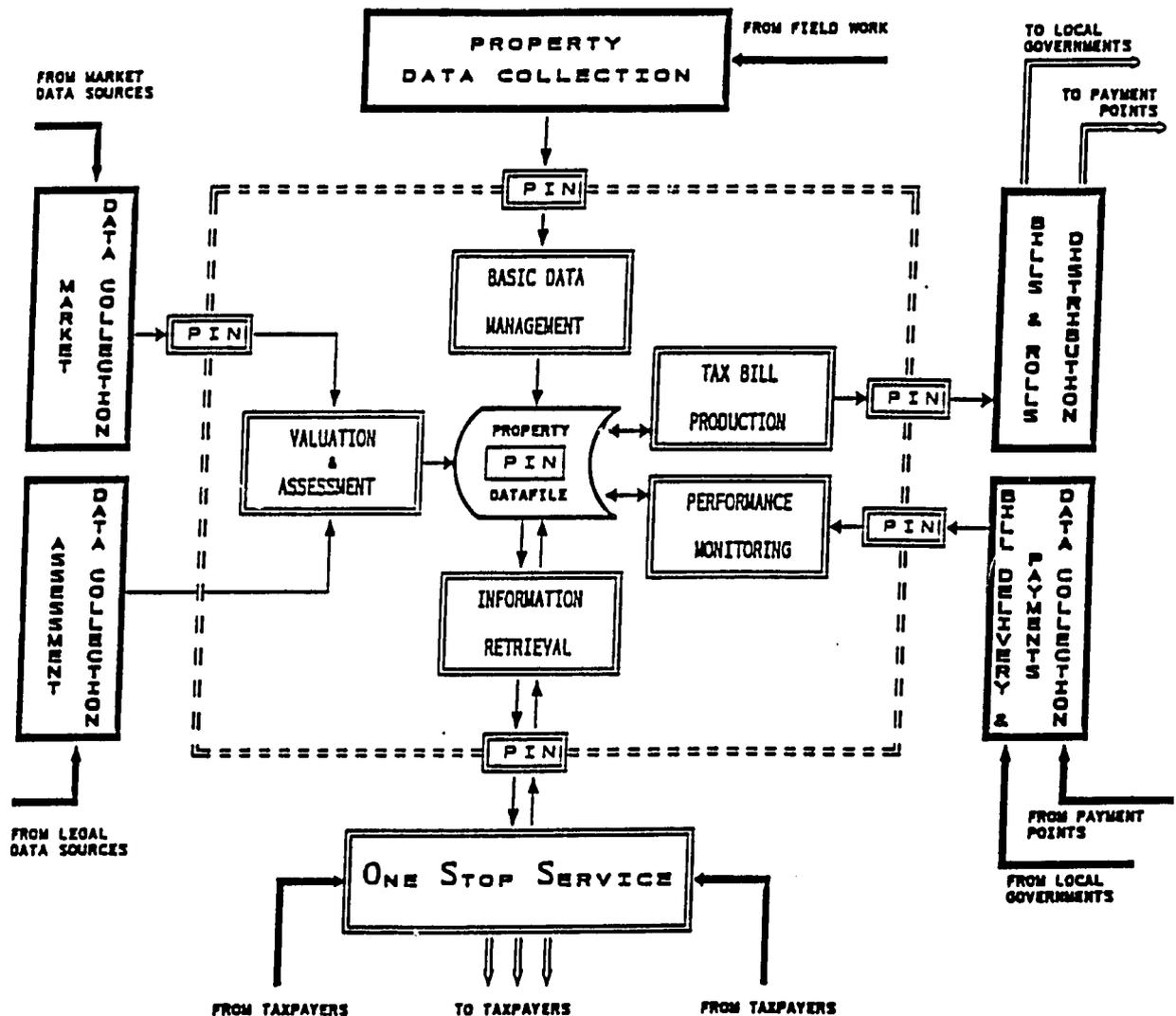
This manual concentrates on the basic data management and valuation/assessment modules. Basic data management precedes the other modules. Valuation and assessment determine who is to pay property taxes and what share of the total levy each taxpayer pays.

The structure of the proposed property tax system, as illustrated in chart A, requires development of a master cadastre containing information now found in several independent sources as well as information to be collected in the field. To the extent possible, the master cadastre should be automated, using a relational database.

1.4 Organizational Structure

The proposed property tax would be jointly administered by the central and local

CHART A
PROPERTY TAX INFORMATION MANAGEMENT SYSTEM



governments. The Department of Geodesy and Land Management (of the Ministry of Land Use and Construction Industry) would administer the assessment and valuation module as well as the basic data management module. The department would gather

data from their own records, the records of the courts, and the records of the Ministry of Agriculture, Forestry, and Food Supply, which is responsible for the Land and Building Register within *gminas*.

Overall supervision would be provided from the department's central offices in Warsaw. Day to day administration would take place in voivodship offices. These offices would furnish assessment rolls or fiscal cadastres to the *gminas*. The *gminas* would be responsible for tax billing and collection. They would be responsible for creating the tax bill production module, the performance monitoring module, and the information retrieval module.

This proposed arrangement departs from the current structure in one important aspect. Currently, all tax billing is a federal function. Because the property tax is a local source of revenue, it is better to have tax billing and collection also be a local function.

1.5 Annual Tax Cycle

Taxation is an annual phenomenon. The property tax cycle should be completed within a (fiscal) year. A short property tax cycle promotes efficiency. Also, the link between taxes paid and services provided is clearer, which promotes accountability.

The law should specify dates, such as the appraisal date, the date(s) for completing assessments, dates associated with mailing notices and hearing appeals, date(s) for turning over the fiscal cadastre to the *gminas*, and so forth.

1.6 Legal Framework

The legal framework, or body of laws that govern a tax, is a key element of a property tax system. These laws lay out policy choices, provide the environment for achieving them, and assign responsibilities. The environment to be covered should include data, public involvement, resources and technology, and interagency and intergovernmental relations.

The Polish central government will have to establish the legal framework for the tax on the capital value of property, recodifying or repealing as appropriate the existing property tax laws. Legislation will need to:

- * Define assessable property. Real (immovable) property is recommended. Immovable property is the rights, interests, and benefits connected with real estate. Real estate consists of land, improvements to land such as clearing and grading, improvements on or attached to land (such as buildings), and appurtenances, such as an easement to cross the land or an easement giving access to land. Apart from appurtenances, real estate is tangible.
- * Define taxable value. Market value is recommended for the reasons given in section 1.2.
- * Provide for disclosure of sales prices, circumstances of sales including financing, and rents. This information is essential in appraisal. See section 6.
- * Specify exemptions. The laws should state rationales, such as subsidy, compassion, or administrative convenience; eligibility criteria, such as type of property, nature of ownership, and use; duration; and any provisions for payments in lieu of taxes. Consideration should be given to alternatives such as "circuit-breakers" and tax abatements.
- * Specify liability for taxation. Owner liability is preferred because it means fewer taxpayers and more certainty of collection. Occupants should be liable only if the owner cannot be found, or if they use for private purposes property that would otherwise be exempt.
- * Specify appeal rights. Administrative details like the timetable for filing and deciding appeals should also be specified.

- * Specify the number of and timetable for tax payments (not within the scope of this draft).

- * Specify procedures for dealing with delinquencies (not within the scope of this draft).

2. Management

To achieve popular acceptance, as well as its other goals, the property tax must be well managed. Citizens hold property tax administrators accountable. Managers must ensure that the property tax administration complies with laws and regulations, follows policies, completes work on time, maintains standards of appraisal accuracy, and uses resources wisely. To accomplish this, managers must plan, budget, organize, control, and evaluate work.

2.1 Planning

Planning is a key aspect of sound management. The property tax administration should engage in three types of planning: (1) strategic planning, (2) annual work planning, and (3) project planning. Plans are used to establish goals, objectives, and timetables. Plans lay the foundation for budget requests (section 2.2). Plans provide a framework for measuring progress. Plans should be written. The plan should briefly (1) outline why the work in question is to be performed; (2) estimate the quantity of work to be performed; (3) state production standards for well-analyzed, repetitive activities; (4) estimate personnel requirements; (5) estimate other resource requirements; and (6) schedule tasks and projects.

After initial adoption, plans should be adjusted as needed to reflect changing circumstances, including limitations on available funding.

2.1.1 Strategic Plans

Organizations use strategic plans to shape their future. Strategic planning focuses on reinforcing strengths and eliminating weaknesses. It clarifies expectations and standards. It assigns responsibilities. The property tax administration can use strategic planning to design the new property tax and ensure its implementation.

Strategic plans are broad in scope and extend three to five years into the future. Strategic planning sets the stage for operational planning.

Top managers should be involved in the strategic planning process. They must see the plan as "their" plan if it is to succeed. As a planning team, they best understand the organization, recognize its potential and limitations, can commit the resources required to carry out the plan, and can ensure that the plan is successfully implemented.

The planning exercise should be participatory and develop a consensus as to strategic directions. A key event in the strategic planning process is a "retreat" during which the planning group (which should not exceed about twelve people) develops the statements discussed below. The management of the property tax administration can then develop the plan internally, using works from the extensive literature on the subject as guides. Some organizations instead use an outside "facilitator" to guide the planning process. Advantages are that a facilitator can transcend the formal and informal power structure of the organization, has no role in past successes and failures, and has no direct stake in the outcome. The facilitator can ensure that every member of the planning group has an opportunity to participate.

Strategic planning begins with an attempt to answer the questions, "What is the purpose of our organization?" and "What should that purpose be?" From the answers will flow statements of goals and objectives, the development of strategies, the commitment of resources, work assignments, and so on.

Stating the purpose of the property tax administration may not be simple. Those involved in planning will have to consider how much emphasis to place on providing a plentiful source of tax revenue, assuring taxpayers that their assessments are correct and fair, and fostering a healthy market economy.

Strategic planning also requires an analysis of the environment in which the organization operates. The purpose is to identify problems and opportunities and assess strengths and weaknesses. The analysis should consider such factual matters as work loads, legislation, economic and social trends, and current capabilities. It also should consider the values of the individuals in the system, because those values can profoundly affect the level of performance that the administration can achieve or taxpayers will accept.

The result of the strategic planning process is the development of a "mission statement" and statements of goals and objectives. The strategic plan may also identify the activities and tasks that must be performed to reach the goals and objectives.

The mission statement succinctly describes what the organization wants to accomplish, for whom, and how. Goals and objectives provide more detail. Goals may be general statements, but objectives should be attainable and measurable.

Progress should be regularly evaluated, approximately every three months. The strategic plan should be regularly updated, about once a year.

2.1.2 Annual Operational Plans

Annual operational plans support the strategic plan and are tied to the annual budget cycle. The annual operational plan addresses all aspects of the property tax administration's operation. It contains information about objectives, activities and tasks, work loads, measures of performance, and resource requirements.

2.1.3 Project Plans

Project plans are operational plans that concentrate on a single general objective or a set of closely related objectives. The period covered by a project plan depends on how long it will take to accomplish the objective. Project plans are typically more detailed than other plans. See section 2.5.

2.2 Estimating Resource Requirements and Budgeting

An important management responsibility is the obtaining of adequate resources. Before realistic budgets for property tax administration can be developed, management must estimate the resource requirements for staff, computer support, office facilities, and other services.

2.2.1 Budgeting

Budgets put resource requirements into monetary terms and provide the funds needed to acquire resources. Budgets should be linked to plans and based on the results to be achieved, not on the previous budget or the funds needed to maintain the existing bureaucracy. Results-oriented budgets strengthen accountability and protect against arbitrary reductions in funding.

Many factors affect funding requirements, the most important of which are work loads or required outputs; inputs or resource requirements, including technologies; and wage levels and the costs of other goods and services.

Output estimates depend on work loads and desired service levels. Service-level decisions should be made during planning. Sometimes, two or more service-level "packages" are proposed, each with estimates of the resources required to provide the level of service in the package in question. Budgeting officials select the service-level package that best fits the government's overall spending priorities.

Information on work loads (such as the number of parcels to be reappraised) can be obtained during the situation analysis phase of planning. The state of the economy affects work loads, because high rates of population growth and new real estate development mean many new properties will be added to the property tax rolls each year. Inspecting new properties is more expensive than making routine maintenance inspections because of the amount of detailed information to be obtained and the travel time between parcels. Similarly, sparsely populated areas with large parcels are more expensive on a per-parcel basis than more densely developed areas. Concentrations of

commercial and industrial property also imply greater per-parcel costs. Rapid changes in prices and price levels imply shorter reappraisal cycles.

Analysis of patterns of expenditures can be helpful in budgeting, although it is unwise to base budget proposals solely on past spending. Patterns can be examined in two ways: (1) objects of expenditure and (2) programs or activities. In analyzing such data from other agencies, it is important to identify any significant categories of administrative costs that are not directly charged to the tax administration budget (such as the costs of employee benefits, office space, central computing services, and so forth).

2.2.2 Staffing

The chief resource requirement of the property tax administration will be sufficient qualified staff. Indeed, expenditures for staff salaries and benefits are usually 80 percent or more of the total expenditures for property tax administration.

The property tax administration must have enough employees to perform its functions effectively and efficiently. Requirements depend on such factors as the amount of work to be done, how that work is organized, and available technology.

Qualifications. Staff qualifications are also important resources in property tax administration. The qualifications for a particular job depend on the nature of the work to be done. Matching the work to the qualifications of each member of the staff is a challenge to management.

The property tax administration will need managers, appraisers, statisticians, systems analysts and programmers, computer technicians, mappers, public relations specialists, legal advisors, secretaries, clerks, and others.

Management personnel in the property tax administration have responsibilities well beyond appraisal. They will be responsible for leadership and personnel management. Some will be involved in planning, budgeting, and project management. Managers must be able to communicate effectively with journalists, property owners and business leaders, and officials in all branches of government.

Modern mass appraisal requires appraisers who know some mathematics, economics, and statistics as well as appraisal principles and computer-assisted mass

appraisal techniques. This may mean appraisers who have university degrees in an appropriate field. The well-educated appraiser can usually become productive more quickly. Moreover, the agency's investment in training is reduced and is not wasted if the appraiser leaves for other employment.

Many employees of the property tax administration will have regular contact with the public. This should be seen as an opportunity for service, and the public should be considered a client of the assessment office. Employees should enjoy helping members of the public understand the property tax and their own assessments. The staff also should be able to remain calm and tactful when dealing with angry taxpayers.

Staff Size. Estimation of the number of employees required begins with analysis of the amounts and kinds of work to be done, the time available to do the work, and production rates. The basic equation is

$$\frac{S}{T} = \frac{P}{R}$$

where S is the number of staff positions needed, P is the measure of the work to be done (such as the number of properties to be appraised or inspected), R is the production rate, and T is the time available. For example, if one appraiser can appraise five farms in a day, the number of appraisal positions required to appraise 2200 farms in a 220-workday year is two ($S = [2200/5]/220 = 440/220 = 2$).

Estimates of staff or time requirements should consider time spent in each activity, including training and travel. Estimates of field work should consider time lost to inclement weather. Production rates should vary with the type of activity and the density and complexity of properties.

Production rates can be developed by analyzing actual work performance. The rates should be based on typical achievements, not the rates of only the best, or worst, workers. Rates should be continuously monitored and adjusted as necessary. Production rate data can also be used to evaluate staff efficiency.

For most planning and budgeting purposes, available time is measured in terms of the number of work days (or hours) in a year (say, 220 days to allow for weekends, about 10 days for holidays, and about 30 days for vacations and sick leave).

57

Staffing benchmarks can be developed from surveys. A starting point might be one person for every 2,500 properties. This benchmark is based on surveys of property tax administrative agencies in the United States. However, individual agency ratios varied considerably. Smaller agencies had lower ratios (1:1,000 to 1:1,500) and larger agencies had higher ratios (1:3,000 to 1:3,500). Factors that affect the ratios include level of staff training (a well-trained staff is more productive) and extent of computer use.

A policy of making maximum use of computers and other technology will eventually produce better results than a policy of full employment. Full employment policies often result in poor morale, demeaning work, poor performance, and low productivity. Opportunities for petty corruption increase. The result may be a general discrediting of government.

Staff Service Costs. The cost of staff services is calculated by adding the products of number of positions in each salary category times salary for the category, plus benefits. In a market economy, staff salaries and benefits must be competitive with similar positions in government and business. Competitive salaries make it possible to attract and retain qualified employees and protect investments in training, which are lost if qualified personnel leave for better-paying positions.

2.2.3 Computing Resources

Computer support is a virtual necessity in contemporary property tax administration--provided equipment can be serviced and programs maintained. Computing resources include hardware, software, and the employees responsible for system analysis, system design, programming, and computer operations.

Computers can improve assessment efficiency. They reduce the need for manual data transcription, routine use of photocopies, and manually prepared work logs, batch reports, and other reports designed to produce an audit trail. They reduce the time spent on mechanical, repetitive processes such as producing tax rolls and making valuation calculations. Data can generally be more accessible and more secure. Computers can also help increase appraisal accuracy by expanding analytical capabilities.

528

The management of the property tax administration should try to get as much computer support as possible for appraisal, sales analysis, administration, and data management. The first step is to get data into computer-readable form. For computer-assisted mass appraisal, property characteristics data must be in computer-readable form. Online data entry and retrieval offer several important advantages in assessment operations. See section 2.6.

2.2.4 Office Facilities, Furniture, Equipment, and Technical Library

The property tax administration's offices should be professional in appearance and provide a good working environment. Space requirements depend on the size and composition of the staff, the work they do, and the technology used. Analysis of space needs should consider requirements for public contact, office machinery, files and storage, mapping and drafting, and conferences and training.

The property tax administration will require a variety of office furniture and equipment, such as cameras, clipboards, telephones, typewriters, photocopiers, filing cabinets, mailing machines, facsimile machines, dictating equipment, measuring instruments, micrographic equipment, map cabinets and racks, financial and ordinary calculators, and word processing equipment and printers.

The property tax administration will need access to the latest thinking and techniques in the field. Publications and other technical materials should be organized into a library. The International Association of Assessing Officers can help with setting up the library and suggesting what types of publications the library should provide.

2.3 Quality Assurance

Public acceptance of property taxation depends on the performance of every member of the property tax administration. The conditions necessary for effective performance include (1) establishment and documentation of standards of

performance that conform to legal requirements and professional standards, (2) a well-prepared staff, (3) ongoing evaluation of performance, and (4) effective programs to correct problems. Ratio studies are the chief evaluation tool. An organizational culture of public service and excellence helps ensure quality work.

Public acceptance will also depend on a perception that the tax is fair. A perception of fairness is reinforced when data are accurate, valuations appear accurate and uniform, and taxpayers are treated without prejudice or favoritism.

2.3.1 Overview

Quality assurance refers to the system used to maintain assessment quality. Quality is measured by the degree to which assessments conform to legal and professional standards. The property tax administration should strive for the highest possible level of quality, by means of planning, continuous review, and correction as needed. Good management builds into every step a concern for quality.

The components of a quality assurance system are listed below, and described in sections to follow as noted:

- * Staff selection and training (sections 2.7.2 and 2.7.3)
- * Professional ethics (section 2.3.2)
- * Organization (section 2.7.1)
- * Computer system design (sections 2.2.3 and 2.4)
- * Assessment standards (section 2.3.3)
- * Data edits (section 2.6.2)
- * Security procedures (section 2.3.4)
- * Ratio studies (section 2.3.5)
- * Appraisal reviews (section 7.2)
- * Procedural audits (section 2.3.6)
- * Effective communications (section 2.7.5)
- * Corrective actions (section 2.7.5)
- * Taxpayer feedback through objections and appeals

Quality assurance procedures are presented throughout this manual. The pages to follow address components of a quality assurance system not dealt with elsewhere.

2.3.2 Professional Ethics

Appraisal and property tax administration present challenging situations in which ethical guidance is needed. Questionable or unethical conduct compromises the integrity of property tax administration. The management of the property tax administration should require staff to comply with a code of ethics. The International Association of Assessing Officers has a Code of Ethics and Standards of Professional Conduct, with which its members must comply. This code can be used as a model.

2.3.3 Assessment Standards

Assessment standards work includes a variety of procedures necessary to ensure the quality of the assessment product, such as developing and maintaining valuation manuals, procedural manuals, and appraisal benchmark data. These data include land unit values, income multipliers, capitalization rates, and typical rental property expense ratios.

Property tax administration involves many complicated tasks. The work performed in any recurring complex task should be documented. The necessary steps should be described and illustrated in a procedural manual.

Production standards are needed for planning and budgeting and for evaluating performance. Although the experience of other property tax systems can provide usable information, it is better to develop local standards that take account of factors affecting local production. To develop such standards, statistics on how time is used and on work accomplishments are needed.

2.3.4 Security Procedures

Security procedures fix responsibility for work (that is, establish "audit trails"); restrict access to manual and computerized records to protect confidentiality, prevent loss of records, and prevent unauthorized changes in records; and minimize opportunities for corruption (for example, by rotating work assignments).

An audit trail is a record of changes made to a record. It identifies who made the change (or the terminal used to make the change), when the change was made, and why. An audit trail makes recovery from error easier. It also makes it possible to isolate responsibility for errors or for failing to correct them. Causes of a problem can then be identified. Individual mistakes are inevitable, but patterns of mistakes identify system problems, which are more serious.

Audit trails may include computer sign-on and password procedures, and the signing or initialing of paper forms. Batches of forms should have transmittal sheets. At each successive stage of a process, work in the previous stage should be reviewed for completeness and accuracy before work is sent to the following stage.

2.3.5 Ratio Studies

In a ratio study, the appraised values produced by the property tax administration are compared with independent indicators of market value. (Open-market, arm's-length sales or independent appraisals are most often used.) Statistics describing the level and uniformity of the appraisals are calculated.

The level of appraisal should be close to market value. That is, the typical ratio of appraised value to indicated market value (the median ratio is usually preferred) should be near 100 percent. In addition, the individual ratios should be clustered closely around the typical ratio. A statistic, the "coefficient of dispersion," is used to measure this clustering, or uniformity. This statistic is the average absolute deviation of the individual ratios expressed as a percentage of the typical ratio. The coefficient of dispersion (or "COD") should usually be less than 20 percent.

62

By measuring the level and uniformity of existing appraisals relative to current market values, ratio studies become a valuable planning tool for determining reappraisal priorities and allocating resources. Ratio studies can indicate which locations and types of property are in greatest need of reappraisal and which can simply be adjusted, or "indexed," for price-level changes.

Patterns in ratio study statistics among market areas and property types can also be used to evaluate the quality of mass appraisal models and suggest areas in which the models need to be refined. A common problem is the overvaluation of low-value properties and the undervaluation of high-value properties.

Of course, ratios reflect not only the quality of the property tax administration's appraisals but other factors as well. The underlying volatility of the market may have an important influence on the statistics. Other factors are the care with which sales are selected and processed and the accuracy of any independent appraisals used in analysis. Consequently, ratio study statistics should be used with caution.

2.3.6 Procedure Audits

Procedures as well as results should be evaluated in a quality assurance program. Ratio studies and other examinations of results can be used to identify problems but may provide little information about the causes of problems. As the name indicates, a procedure audit focuses on practices and procedures. If procedures comply with requirements and standards, results are likely to be acceptable. The property tax administration should establish a program of procedure audits, perhaps conducted by an internal audit unit.

2.4 System Development

The management of the property tax administration can anticipate the development of computer systems. It will be a management responsibility to ensure that these systems are well designed and smoothly implemented. Management should provide leadership and ensure that the system development process has adequate resources.

System development involves the identification of user requirements and translation of those requirements into operational software and user procedures. Development also involves determining hardware requirements. The steps in the system development process include:

- * Definition of user requirements, which are stated as functional specifications
- * Detailed system design--A modular design usually is best.
- * Writing of program code and unit testing
- * System testing--This is a comprehensive testing of the system, taking test data through all phases of system operation.
- * Installation (if the system is developed at another site than the operational site)
- * User acceptance testing--This testing by the operational staff is to verify that the system meets functional requirements before being accepted and put into production.
- * Operation--Preliminary phases include (1) data conversion and establishment of interfaces with other systems and (2) training.
- * Routine operations
- * System maintenance--The system should not be viewed as static and unchanging. Requirements will change over time. Experience will indicate aspects of the system that can be improved. The life expectancy of the system will be increased through a planned, ongoing maintenance process. However, systems usually have a life of approximately ten years.

2.5 Project Management

Project management is distinguished from general management only by the time frame. General management is ongoing. Project management has a finite time frame and focuses on a single purpose: successful completion of the project.

The project could be system development or some other important task. However, the most challenging project that the property tax administration will face is the initial cadastral survey and appraisal program. Preliminary steps in the management of an appraisal project include:

- * Assessment of resource needs and availability
- * Assessment of data needs--collection or verification (section 2.6)
- * Determination of valuation approach(es)

The assessment of resource needs and availability may lead to the decision that all or part of the work will be contracted out. This will require the development of bid specifications, administering the bid process, selecting the contractor, writing a contract, and administering the contract.

If, on the other hand, the property tax administration decides to conduct a reappraisal project using its own employees, a project work plan will have to be prepared, staff hired and trained, and the project managed.

2.6 Data Management

The handling of data represents the most expensive activity of a property tax system, thus efficiency and effectiveness become particularly important. Data management responsibilities include analysis of data needs, collection, storage, and retrieval.

2.6.1 Data Needs Analysis

Because data collection and maintenance are time-consuming and costly, only essential data should be collected and maintained. Essential data elements include those needed in valuation or in support of values, for tax administration, and by other users of multipurpose information systems. Priority should be given to the information needs of the property tax administration, rather than those of a multipurpose system.

The property tax administration will face two broad issues: What data are required? Are existing data accurate? The administration should consider whether existing data in the land and building register, the land and mortgage register, and other records are sufficient for (1) property identification and description, (2)

valuation, and (3) determination of taxability and ownership. Regarding valuation, the administration should identify the data elements needed to support proposed valuation methods and techniques. The administration should also consider the uses of its data by other governmental agencies, as well as public uses. Any decision should take into account both immediate and long-term needs and the technologies that might be used to collect the data.

The data needed for the proposed property tax are identified in later chapters.

2.6.2 Data Collection

A successful data collection program involves a range of activities. The initial stages include planning, design and documentation, hiring, and training. Operational stages include scheduling.

Developing Codes. The recording of property characteristics must be analyzed and decisions made in advance, to achieve accuracy and consistency. A characteristic can be recorded in a variety of ways. For example, it may be depicted in words (including numbers representing measurements or counts) or represented in a picture (such as a photograph or sketch). Descriptions or variables can be objective or subjective. They can be qualitative or quantitative. If variables are numerical, they can be continuous (such as a measurement) or discrete (such as a count).

A description can be too lengthy for practical record storage. Codes reduce descriptions to a more uniform and manageable size. Codes can be letters, numbers, fewer words, or combinations of these. They can represent yes-no conditions, in which case the variables are called binary or "dummy" variables. They can also represent classes, ... which case they are called categorical or dichotomous variables.

Data Collection Methods. In addition to a conventional field canvass, the property tax administration should consider alternatives such as requiring taxpayers to supply some of the needed information. Quality control and supervision are critically necessary to ensure the quality of the data.

Form Design. Data collection forms, data entry screens, and property record reports should have coordinated designs to increase efficiency, completeness, and

accuracy. Data collection forms should be designed so that information can be keyed directly or scanned. This saves time and minimizes errors. The form should be well organized and easy to read. Assigning field numbers to data items and designing data entry screens to correspond to forms makes data entry easier.

Data Collection Manual. A data collection manual should be prepared that contains instructions on how to classify property characteristics and assign the proper codes. The manual also should provide instructions on how to complete forms.

Training. The data collection staff should be well trained in property inspection procedures, handling data collection forms, and proper public conduct.

Logistics. The logistics of data collection programs involve the movement of staff and data collection forms from office to field and back, in ways that use time wisely and minimize loss of data.

Data Edits and Audits. The quality of data should be evaluated by means of record audits and computerized edits. In a record audit, samples of property record and other forms are reviewed for completeness and accuracy. In addition, computerized data can be subjected to a range of quality checks or edits not available in manual systems. These edits include missing-data checks, validity checks (characters and codes), range edits, and consistency (logical edit) checks. Error and warning messages should be generated as circumstances dictate.

Public Relations. Property owners should be informed of the data collection program shortly in advance of field inspections. The data collection staff should be prepared to answer questions about the purpose of the program.

2.6.3 Data Storage and Retrieval

The management of the property tax administration should ensure that data are secure but accessible. The amount of redundant data maintained should be kept to a minimum. Data should be stored in computer files whenever possible. Management should therefore develop a plan to convert manually maintained files to computerized files, and should also consider linking the files through a relational database management system to a master cadastre as envisaged in chart A.

A master cadastre can be visualized as having three main files linked by property identifiers: (1) a name, address, and legal description file, (2) a property characteristics file, and (3) a sales file. The first two would be analogous to the current legal registers and land and building registers.

2.7 Personnel Management

Management is the art of getting work done through people. Managers use their interpersonal skills to direct the talent and energy of employees to achieve the organization's goals. Managers do this by knowing their employees, delegating authority, expecting and rewarding excellence, encouraging teamwork and participation, and recognizing the power of self-motivation.

2.7.1 Organization

The staff of the property tax administration needs to be effectively organized. The organizational structure is based on the job, or group of tasks assigned to one person. A job is composed of tasks, performance standards, and access to resources. Organization should be based on careful analysis of the volume of work, the skills required, and realistic production rates.

Effective organization of tasks and jobs increases efficiency. Subordinates should be accountable to only one superior, and gaps and overlaps in areas of authority should be avoided. Efficiency can also be achieved by specialization, possibly along functional and geographic lines. For example, the property tax administration could have both a central office and regional offices in the voivodships. Central office functions would provide assistance and supervision for the regional offices, which in turn would be responsible for day-to-day operational activities.

The organizational plan should be documented with charts and statements of the responsibilities of each job and organizational unit. These formalize top management's delegation of work and suggest the lines of communication.

Management should monitor the organization for problems such as work bottlenecks, tasks that are not performed because everyone assumes someone else is responsible for them, and duplication of work (beyond that necessary for quality control). If problems occur, reorganization should be considered.

2.7.2 Employee Selection

An important management responsibility is employee selection: finding the right person for each job. Selections are made at initial hiring and with promotions as well. Steps in the process may include reviewing the job description, identifying necessary and desirable qualifications, announcing open positions, reviewing applications, testing, selecting applicants for further consideration, interviewing leading applicants, and finally selecting the best applicant for each position. The selection process should be guided by formal policies and procedures to ensure that it is fair.

2.7.3 Employee Development

Although most employees will improve their skills by their own efforts, managers have an organizational responsibility for employee development. They use education, training, counseling, and performance reviews to identify talents, helping employees to grow in their positions and become eligible for promotion.

2.7.4 Compensation

The property tax administration should establish levels of compensation commensurate with the responsibilities and skills required of each position. In order for the tax administration to compete successfully for qualified employees, levels should be commensurate with those elsewhere.

2.7.5 Internal Communications

A major management challenge is the creation of programs of internal communications that foster an emotionally healthy workplace. Good internal communications begin with statements of goals, objectives, and values. General rules and policies should be in writing. The work involved in any regularly performed complicated task should be documented; steps should be described and illustrated. Expectations should be clearly communicated.

Responsibility for enforcement of policies and procedures should be appropriately delegated to all supervisors. Rules should be administered firmly but fairly. Lax compliance with rules reduces productivity and morale.

The program of internal communications should be continuous and should include meetings, performance reports, progress reports on projects, and a policy newsletter. Frequent staff meetings allow for clarification and a consistent understanding of expectations. When policies or procedures change, employees should be informed of the need and reason for the change.

Employees need frequent performance evaluations. To be fair and effective, formal evaluations should be related to specific duties and performance standards. Formal evaluations should be documented in writing. Informal evaluations also are important. Problems should be identified and the employee counseled. Good performance should be recognized.

The purpose of discipline should be the promotion of behavior that achieves goals. Discipline should be progressive, beginning with the least severe method for changing behavior, and ending, if necessary, with dismissal as the final step.

Managers should realize that no behavior takes place in isolation, behavior can rarely be attributed to a single cause, and every action sets off a chain of reactions.

3. Property (Parcel) Identification

A key element in property tax administration is the identification in a geographic or spatial sense of properties that are assessable or taxable.

3.1 Processing Source Documents

The property tax administration should acquire information as to every change of ownership of real property and every taxable occupancy. Sources are taxpayers, property registers, and third parties as necessary.

Secondary sources include real estate agents and brokers, private real estate appraisers, and the like. These can be useful in determining whether a sale meets the criteria of open-market and arm's-length, and in furnishing other background information. They can also confirm already-reported information.

Changes in ownership require updating and processing within the office, including

- * ownership name and address information and associated files
- * changes in legal descriptions
- * cadastral maps and appraisal records, combination or proration of assessment records to maintain integrity, consideration as to whether a reappraisal is required
- * sales information (section 6)

3.2 Cadastral Mapping

Land as a resource cannot be increased in quantity by human efforts. Consequently, land attributes and ownership are of great concern to society.

Data on land parcels and their owners or occupants are the foundation of a cadastral record system. Property tax administrators typically represent these data on large-scale cadastral maps that depict the size and shape of each parcel of property. The maps should be continually updated.

Compiling cadastral maps is like working jig saw puzzles. The puzzle has to be complete before one can be sure that all the pieces are in their proper places and there are no missing or extra pieces. Solving the cadastral map puzzle requires that the description of every parcel of real estate be displayed graphically on a map. Legal definitions and numbers do not need to be on the maps but should be in the alphanumeric database.

A cadastral map system consists of the base maps on which parcel boundaries are drawn; source data on the location and boundaries of parcels, such as deeds, surveys, plats, and other map work records; the resulting cadastral maps; index maps, and a plat or subdivision index.

Maps should be compiled and maintained according to professional standards. Map sheets should be of a uniform, convenient size. Map materials should be easy to draw on, ensure clear crisp reproduction, and be durable. Maps should be drawn to an appropriate scale. The proper scale is one that allows the largest possible area of land to be displayed on a map sheet while showing the necessary detail. The scale for urban areas should be about 1:1,000. Maps will be easier to use if layouts, linework, and symbols are standardized.

In a strictly legal sense, cadastral maps may need only to be accurate as of the assessment date. However, parcels of land can be combined, divided, and sold at any time. Many people need current information about land ownership patterns to clarify legal issues, or to complete transfers, which often require proration of property taxes. Moreover, continually maintaining cadastral maps makes practical administrative sense, because work flows can be smoothed out.

Ideally, cadastral maps should include:

- * Boundaries of all parcels
- * Parcel dimensions or areas
- * Block and lot numbers and, if scale permits, names and boundaries of subdivisions and plats
- * Boundaries of political subdivisions
- * Location and names of streets, highways, alleys, railroads, rivers, lakes, and so on
- * Parcel identifiers
- * Other basic map information including a map number, title block, revision block, legend, map key, north arrow, and keys to adjoining maps

The property tax administration should evaluate current cadastral maps.

3.3 Assignment of Parcel Identifiers

A parcel identifier is a uniform, manageable numerical expression used to link parcel information on maps with parcel data in other files. Common ways of identifying parcels by their addresses, their owners, or some other property characteristic are ambiguous and are unworkable in modern property tax systems. Although legal descriptions usually provide a precise identification, their lack of a standardized format and length makes them unwieldy.

Parcel identifiers should have legal status. That is, a given parcel identifier should be recognized by the courts and other officials as a sufficient description of a specific parcel. Identifiers should be required on real property transfer documents.

Parcel identifiers should meet the criterion of uniqueness--a one-to-one relationship between the size and shape of a parcel and its identifier. This is the most important attribute of a parcel identifier. Other important attributes include: permanence--an identifier should change only when parcel boundaries change; simplicity--short, sequential, uncomplicated identifiers are easier to use; and reference to geographic location.

Uniqueness in parcel identifiers is achieved by assigning a new parcel identifier to each newly divided or combined parcel. The parcel identifiers of all parcels whose size or shape is changed by the division or combination must be "retired" and not assigned to one of the resulting parcels. Adding a suffix to the identifier to a "parent" identifier is another way of maintaining uniqueness. A record of retired identifiers and the parcels associated with them should be maintained for future reference.

Parcel identifiers should be assigned without delay. Ideally, this would be shortly after sale information is available.

The property tax administration should evaluate the current cadastral identification numbers to ensure that they meet the criterion of uniqueness, particularly with respect to records in the building register. Note that the parcel identification system should be able to accommodate condominium units.

4. Taxpayer Identification

Another key element of a property tax system is identification of the person (an individual or firm) responsible for paying the property tax assessed against each parcel. The property tax legislation will specify whether the taxpayer is the owner, occupant, or either.

The property tax administration should continually acquire ownership or occupant information from legal documents, screen them for changes, and update property tax records accordingly. Depending on the volume of changes, change information should be acquired daily or weekly. Each change document should be screened to:

- * Identify the property involved in the change
- * Match the property involved in the change with the same property or properties in current property tax registers
- * As discussed above, verify whether there has been a change in the legal description
- * Also as discussed above, verify the parcel identifier (or, if necessary, assign new identifiers)
- * Determine who the new taxpayer is
- * Record the new taxpayer's name and address in property tax records, and
- * Note any information related to the sale price and terms in sales records (discussed later).

Promptly updating taxpayer name and address records and legal descriptions smooths work loads and reduces confusion. Transactions after the assessment (or tax lien) date should be made to a working draft of the next year's register.

5. Property (Parcel) Characteristic Inventory

Property records should contain the information needed to appraise properties, and also that used in classification and to satisfy property owners that the property tax administration is familiar with their properties. Data needs analysis was discussed in section 2.6. In general, records should contain the location, site, and improvement characteristics needed to determine the attractiveness of a property in the marketplace.

5.1 Location and Site Characteristics

The following are important location and site characteristics:

- * Market area, quarter, or neighborhood
- * Surrounding land uses and their influences
- * Views--desirable and undesirable
- * Distances to value influence centers (such as the city center, schools, and shopping--usually requires geographic coordinates)
- * Service (utility) and transportation network access
- * Lake frontage, golf course frontage, and the like
- * Land-use controls
- * Land use
- * Parcel size, shape, and restrictions on development
- * Topography, terrain, and soil characteristics

Good appraisal practice requires a decision as to the "highest and best use" (or "most probable use") of each parcel. Information on current use is necessary in stratifying land for appraisal purposes. In classified property tax systems, which use different tax rates for different property classes, information on use is essential in assigning parcels to their proper classes.

The property tax administration should evaluate whether the information contained in the land and building register and other documents is sufficient. Many mass appraisal systems assume the current use will continue indefinitely, and this is

often a reasonable assumption. However, where development or redevelopment is occurring or is about to occur, such an assumption is not supportable.

5.2 Improvement Characteristics

Important improvement characteristics may include:

- * Building use
- * Architectural design (include designed use)
- * Building size (ground floor area or total floor area) and shape--Attempting to maintain data on interior dimensions is relatively expensive.
- * Number of units, such as apartments in a building
- * Number of stories
- * Basement and attic areas (finished and unfinished)
- * Construction quality
- * Building materials in major building components (such as roofs, framing, flooring, foundations, exterior walls, and interior partitions)
- * Garage area and type
- * Area and type of auxiliary buildings, porches, and other improvements such as paving, fencing, and swimming pools
- * Actual age and "effective" age or condition
- * Type and coverage of heating and cooling
- * In a residential unit, the number of rooms, bedrooms, and bathrooms; information on amenities, such as the number of fireplaces
- * Significant features of industrial and commercial buildings

The property tax administration should identify the improvement characteristics appropriate to Poland and then evaluate whether the information contained in the land and building register and other documents is sufficient. A prototype project to do this identification work has been started already. The results for land and apartments research appear in Appendix One.

5.3 Administration of Field Inspections

Data must be maintained if they are to describe properties and market conditions accurately. Data maintenance activities include routine field inspections to check property changes previously identified by such means as building permits.

The property tax administration should arrange to get copies of all building permits issued within its jurisdiction. Permits should be tracked by maintaining a log of properties for which permits have been issued. Those properties should be inspected as near to the appraisal date as possible, to ensure that they are properly assessed. Property records should contain basic permit information.

Properties should be reinspected regularly to ensure that property characteristics data are accurate. The interval between reinspections should be no longer than four to six years. Frequent inspections ensure that building condition ratings are up to date.

6. Sales Data Processing and Analysis

The tax on the capital value of real property will require the property tax administration to acquire, process, and analyze information on all sales of real property.

6.1 Processing Source Documents

Sales data used in valuation or ratio studies must be reliable. Information about the property sold, sale price, terms of sale, and circumstances of sale must be accurate. Certificates of title and real property transfer returns are the primary sources of information about sales prices and terms. If this information is incomplete or questionable, additional efforts to collect and verify information should be made. A party to the sale (buyer, seller, notary, or an agent) is the best source.

It is necessary to determine, first, whether each sale is an arm's-length open-market sale, then verify the price and adjust if necessary for personal property included with the sale. This is particularly the case for commercial sales. Sales can be confirmed by mail questionnaires, telephone interviews, or personal contacts.

Initially, prices established by the central or local government, or by auction, should be accepted as valid indicators of the market values of the sold properties.

Sale validation codes should be developed. These codes indicate whether a sale has been determined to be an open-market, arm's-length transfer and, if not, why not. All sales should be included in the sales file (discussed below). However, the appraiser should be able to select those needed for a particular application.

Whenever rental properties are sold, information on rental income and expenses should be collected by such means as mail questionnaires and field visits. A standardized reporting form will make reporting and analysis easier. Computer spreadsheet programs can be developed to use for entering reported figures, adjusting atypical figures, and estimating unreported data.

Properties for which income and expense data are available should be grouped by type to facilitate analysis.

6.2 The Sales File

A separate sales file should be maintained so that a "picture" of each property as it was when sold can be maintained. This picture is important for the development of valuation models. The sales file should include the parcel identifier, sale date, sale price, and any other data concerning the sale, such as personal property or financing. The file also should include physical characteristics of the property as of the date of sale. Ideally, sales data would be computerized.

6.3 Stratification and Analysis

A preliminary step in the use of sales for mass appraisal or performance analysis is stratification and analysis. Stratification involves classifying properties

according to characteristics that identify a submarket, such as the apartment market in a certain neighborhood.

The first step is to specify the property characteristics that (1) may be used to assign both the properties to be appraised (subject properties) and any comparables to the class of properties that constitutes the submarket being analyzed and (2) affect property value. Such characteristics include current use or highest and best use, land-use controls, location or surroundings, land characteristics, improvement characteristics, income characteristics, if any, and date of sale (of comparables).

Another preliminary step is to specify appropriate units of comparison to account for differences in the size and characteristics of the subject and the comparables.

6.4 Time Analyses

When price levels are changing significantly, the effects of those changes on sales prices must be analyzed, and older sales must be adjusted to the price level on the appraisal date. Price-level changes occur for two reasons: (1) general price level changes associated with inflation or deflation and (2) changes in the supply and demand for the type of properties in question. Four methods for analyzing the effects of time are:

- * Paired sales analysis
- * Resales analysis
- * Sales ratio trend analysis
- * Multiple regression analysis

7. Valuation

The value attributed to each taxable property determines that property's share of the total property tax burden. For that reason, valuation will be a major responsibility of the property tax administration. The administration will have to develop and apply both urban and agricultural mass appraisal models.

7.1 Mass Appraisal Modeling

Mass appraisal modeling involves model specification, calibration, and application. These processes may be repeated several times as a model is tested and refined. After an acceptable model has been developed, it is applied to the properties that are to be valued by it, and the model-generated values should undergo review and further refinement.

7.1.1 Overview

At an early stage in the model specification process, the model builder should review the data on the properties that will be used in model calibration. This review should consider the completeness and accuracy of the data. A profile of property characteristics should also be developed, to identify the types of properties for which the model will be valid.

Atypical properties present two problems. If they are used in model calibration, the valuation model may be skewed so that it does not accurately portray the relationships between property characteristics and property values of typical properties. Conversely, a model that is well specified in terms of typical value relationships will not work well on atypical properties.

7.1.2 Sales Comparison Models

Mass appraisal models based on the sales comparison approach to value provide the most supportable estimates of value. Initially, the models may be quite simple. However, the property tax administration should plan to use more sophisticated models as Poland's real property markets develop and the number of sales increases. The initial methods used to calibrate the models might be spreadsheets and descriptive statistics. Multiple regression analysis can be used when the volume of sales in a model group exceeds thirty, or four sales for every independent variable in the model. Similar criteria can be used to evaluate the

feasibility of using adaptive estimation procedures.

A general sale comparison model is:

$$V = S_c + ADJ_c \quad (1)$$

where V is a market value estimate, S_c is the sale price of a comparable property, and ADJ_c is the total value adjustment to the sale price of the comparable for the quantitative and qualitative differences between attributes of the comparable and the subject property.

The steps in any application of the sales comparison approach are:

1. Analyze the market to identify groups of properties that may be meaningfully compared for valuation purposes. This is done by specifying a set of property characteristics that affect property value and, also, may be used to assign both subject properties (the properties to be appraised) and comparables (similar properties for which sales data available) to the class of properties that constitutes the submarket being analyzed. Such characteristics include current use or highest and best use, land-use controls, location or surroundings, land characteristics, improvement characteristics, income characteristics, if any, and date of sale (of comparables).
2. Specify appropriate units of comparison to account for differences in the size and characteristics of the subject and the comparables.
3. Identify comparable sales.
4. Specify a model that accounts for the differences in the sales prices of the comparables based on comparability characteristics.
5. Calibrate the model using one of the accepted calibration techniques.
6. Apply the model to unsold properties.

7. Review the performance of the model and make any necessary final adjustments to the model or the values produced by the model.

7.1.3 Other Approaches to Value

There are two other approaches to value in classical real property appraisal practice: the income approach and the cost approach. The income approach is especially important in the appraisal of income-producing property. The cost approach is useful when there are few or no sales of the type of property in question.

Income Approach. Simple applications of the income approach can be used in the appraisal of certain types of property. In this approach, appraisers use various techniques to estimate the relationship between current property income and current property value. These techniques should be used to appraise income-producing property when sufficient data are available.

The income approach is based on the premise that the value of a property is directly related to the amount, duration, and certainty of the income that will be generated by the property. The notion that income receivable in the future always is worth less than an equal amount of money currently in hand (the concept of time preference) underlies all income approach techniques. The degree of time preference can be viewed as a function of four factors: (1) anticipated loss of purchasing power (inflation), (2) loss of liquidity (it can be difficult to sell an income-producing property quickly), (3) the costs of investment or loan management, and (4) risk. These factors are combined in a capitalization rate, which expresses the relationship between income and value, as in the formula,

$$R = I/V, \quad (2)$$

where R is the capitalization rate, I is income, and V is value. If the income from a property is known and the capitalization rate can be estimated, we can estimate value by simply restating equation (2) as follows:

$$V = I/R. \quad (3)$$

Thus, if annual income equals 10,000 and the capitalization rate is 0.16, the value of the property is

$$V = 10,000/0.16 = 62,500.$$

This example demonstrates that for a given amount of income, a higher capitalization rate will result in a lower property value, and vice versa. The greater the risk, inflation, non-liquidity, and investment management costs, the higher the capitalization rate.

It should be noted that Formula (3) represents a special, basic capitalization model or formula (technically, it is the formula for capitalizing an endless level income stream or perpetuity). The model can be expanded to accommodate such things as finite income streams, variations in the amount of income, and variations in components of the capitalization rate. In applying the income approach, the appraiser should consider all these matters.

Capitalization rates are developed in two major ways: direct sales analysis and indirect methods. In direct sales analysis, appraisers use formula (2) to compute overall capitalization rates. This requires sale price and net income data from recently sold income-producing properties. To be effective, the data must be from properties that are comparable with respect to (1) the discount rate, or rate of return required to attract investment in a property; (2) the remaining economic life of the improvements, or remaining period in which the buildings or improvements are expected to contribute to the value of the total property; (3) the income path, or expected direction and rate of change in the current or first year's normal net income; and (4) the percentage of income attributable to the improvements.

To achieve the required comparability, properties are stratified according to such characteristics as property type (for example, apartments, stores, and office buildings), size (for example, number of apartments, rentable area), and location. After stratification is completed, calculation of observed overall rates is easy and straightforward.

The two chief advantages of direct sales analysis are that the rates directly reflect market behavior and the pattern of observed rates provides information as to their reliability. Regarding the latter advantage, if the rates in each single stratum cluster around a central value, and the pattern of rates among strata is consistent with expectations, the rates can be relied upon. On the other hand, if the rates vary greatly within a stratum, or the pattern is illogical, the rates can be judged unreliable.

Direct capitalization avoids the need for assumptions about the income stream, remaining economic life, and other factors. These assumptions are required by the indirect methods, which are also called "yield" or "ratio" capitalization.

Supportable appraisals based on the income approach require current data on market rentals, lease provisions, operating expenses, mortgage interest rates and terms, and investors' expectations regarding desired rates of return on investments given their assumptions about the pattern and duration of income streams.

Cost Approach. The cost approach may be used to appraise improved properties. It is based on the premise that the value of a property equals the cost of acquiring an equally desirable substitute, with the process of acquisition in this case being the production of the substitute. The cost approach, therefore, begins with the hypothetical construction of new but otherwise equally functional improvements on the same site as the subject property.

The site is appraised as if vacant and available for development at its highest and best use. The market value of the improvements is estimated in two main steps. First, the appraiser estimates the current costs of construction of the improvements. However, market value must be based on the current condition of the improvements. If, due to that condition, the estimated cost of the improvements new is greater than their current market value, the difference is accrued depreciation or diminished utility. The second step, therefore, is for the appraiser to estimate the amount of accrued depreciation from all causes.

To summarize, the five steps of the cost approach are:

1. Estimate land value.
2. Estimate the current cost of the improvements.
3. Estimate accrued depreciation.

4. Subtract the estimate of accrued depreciation from the estimate of current cost.
5. Add the estimate of land value to the estimated depreciated cost of the improvements.

The resulting amount is the estimated market value of the property using the cost approach.

7.1.4 Considerations by Property Type

Urban Land Valuation. Special attention should be devoted to urban land valuation because accurate land values form the base of an effective appraisal system. A credible land valuation program requires that land values be updated regularly to reflect the current market. If the cost approach is used, land values are determined separately and added to estimated building values. In the sales comparison and income approaches, land values are used to allocate the total value between land and improvements.

Urban land is best appraised by the sales comparison approach. However, when sales information is inadequate, values have to be estimated by other procedures. It is also possible to use the opinions of experts to supplement or substitute for information about vacant land sales. For example, a panel of experts can be polled for their estimates of the values of a sample of parcels (which need not be vacant).

Mass appraisal of land involves developing models of per-unit land values through analysis of local sales. These models are documented on land value maps and in tables of land rates and adjustments.

As stated earlier, in section 6.3, two preliminary steps in the mass appraisal of urban land are to specify appropriate strata and units of comparison. Appropriate bases for stratification include zoning or use, location or neighborhood, and size of parcel. Stratification ensures that land values will be based on market data from properties subject to similar supply and demand factors. Land in each use or zoning classification should be assigned an appropriate unit of comparison to facilitate analysis. The chosen units should reflect the way in which market participants,



investors, and other appraisers analyze land values. If parcels are fairly uniform in size, the parcel itself might be the unit of comparison. If parcels vary in size, an area measure (for example, square meters) should be the unit. Street frontage is another frequently used unit of comparison.

Land sales should be expressed by price per unit and plotted on maps. This helps the appraiser visualize patterns and establish benchmark values. Two methods, comparative-unit and base-lot, can be used to establish benchmarks. In the first method, the median sale price per unit or other representative figure is used to calculate a typical unit value. In the second, the value of the unit (often the parcel itself) for a benchmark "base lot" parcel, either real or hypothetical, is estimated by the sales comparison approach. In both cases, the benchmark values provide the starting point for establishing the individual value estimates of all the parcels in the stratum. Standard unit values should portray the overall pattern of land values.

Land values per unit tend to vary with the size or depth of parcels, and appropriate adjustments should be made. Depth factor tables, for example, can be used to adjust front foot values for lots of differing depths. These tables are usually based on the typical or average lot depth for the area; lots of more or less depth can be adjusted accordingly. Thus, depth factors are really a size adjustment for land.

7.2 Model Application and Review

The initial application of a mass appraisal model is straightforward. However, the results of applying computer-generated value estimates should never be used directly to assess property. Each value estimate should be reviewed.

The appraisal review process considers data quality, the appropriateness of the valuation model in question, and the success of the calibration of the model. Consistent with the principles of quality assurance, performance reviews should take place at each stage in the model development and application process. Reviews should include prereviews, desk reviews, and field reviews. The nature of the appraisal program itself and the properties being appraised affect the emphasis that should be given to any particular step in the review process.

Appraisers should review models for completeness. That is, the model should take into account the general factors that affect property value within a stratum, and the appraiser should also consider whether any individual properties have unique factors that affect their value only. This review requires analysis of property characteristics data, as described below.

One objective of the analysis is the possible detection of data errors and "outliers." Outliers are exceptional properties that may skew model calibration or may be outside the range of properties for which the model is valid. The data review should be most stringent with properties that have recently been sold and have new improvements or other changes. It is important to determine whether the sale took place before the improvements were made. The appraiser should also consider whether the sale price was consistent with expectations.

An essential step in the model application and review process is to apply the model to a test group of properties. The test group should not include any of the properties used to develop the model. Most of the test group should have been recently sold, so that the sales prices can be used as a basis for comparison with the appraised values. A ratio study can be used to decide whether model performance is satisfactory.

Experienced appraisers can also compare model-generated values to the prices--or range of prices--at which they would expect the properties to sell. Lack of consistency between the two estimates would suggest a need for further review, keeping in mind that the appraiser's judgment might be in error. Estimates can also be compared if more than one valuation model is developed, consistency again providing a useful gauge.

After the final model is applied, appraisers should review each value estimate. If property characteristics data were collected or verified shortly before the model was developed and applied, the review can take place in the office. Otherwise the review should take place in the field. In any event, some properties should be reviewed in the field to resolve questions about data accuracy and model appropriateness. Having recent photographs on file or digital images of properties on hand reduces the need for these field reviews.

In making the review, the appraiser should have reports summarizing property characteristics and appraised values. It is also helpful if the reports indicate percentage changes in appraised values and express values on a per-unit basis, making it easier to evaluate the consistency of the estimates. Access to the latest data edit reports can also be helpful. Properties with unusual changes should be reviewed with the most care.

Review procedures should be highly structured and described in a manual. The discretion appraisers have in changing model-generated values should be described. (Insignificant changes should not be allowed because of the expense of processing them.) Reviewers should also document reasons for any overriding of model-generated values; codes can sometimes be designed for this purpose. Reviewers should also initial the records they change so that an audit trail can be maintained.

Review appraisers should be trained in the review procedures. Training exercises should be developed to test whether the reviewers understand the procedures.

7.3 Communicating the Results

Public acceptance of the tax on capital value of property will be greater if appraisals are properly communicated to taxpayers. The taxpayer should be well enough informed to "audit" the work of the property tax administration. How much explanation is needed will depend on the taxpayer's degree of interest. Some taxpayers will be satisfied when simply told the appraised value of their property. At the other extreme, some will want detailed explanations of the process and evidence that their appraised values are similar to comparable properties.

Each taxpayer should be mailed a notice of every [assessment] change in advance of the appeal period. (If mortgage companies pay property taxes, procedures should be established to ensure that property owners receive assessment notices, to protect their appeal rights.) The notice should contain such information as:

- * Owner's or taxpayer's name

- * Mailing address
- * Parcel identifier (cadastral number)
- * Abbreviated legal description (optional)
- * Tax district number (optional, if there are overlapping taxing jurisdictions)
- * Effective date of the assessment
- * Property address
- * Exemptions (if applicable)
- * Total appraised value expressed in full market value
- * Statutory level of assessment (if different from 100 percent of value)
- * Prior appraised value and assessment
- * Proposed or new assessment
- * Net change in assessment
- * Reason for change
- * Appeal rights, hearing procedures, and dates
- * Date of notice
- * Class or type of property (if applicable)

Information on the probable tax consequences of the new assessment can be included if the change can be estimated accurately.

Sometimes assessments are published or posted in lieu of having to mail notices, placing an additional responsibility on taxpayers to look up their assessments after the assessment roll is made public.

Taxpayers should be given a summary of their property record and valuation on request. the property tax administration should be able to demonstrate the comparability of valuations for similar properties.

8. Exemption Administration

Governments enact exemptions and other relief measures for three basic reasons: first, to show compassion for taxpayers whose personal circumstances make it difficult for them to pay property taxes; second, to subsidize activities beneficial to society--in other words, tax-exempt organizations providing services that governments

otherwise would have to provide; and third, to exempt governmental properties and thus avoid moving money "from one pocket to the other."

One argument against exemptions is that they tend to hide or disguise costs, which can result in misallocated resources. For example, exemption of central and regional government property may leave the local governments providing services to the higher levels without receiving any revenue in return. This can be compensated for, however, by a grants or payments in lieu of taxes program.

A more important disadvantage is that proliferation of exemptions tends to have the dual impact of reducing overall revenue yet increasing the tax burdens on properties or taxpayers who do not qualify for the exemptions. As these burdens increase, additional exemptions are demanded, resulting in a vicious circle.

The goal of the property tax administration in exemption administration should be to ensure that every eligible property or person, and no others, receive the exemptions.

Exemptions may be of indefinite duration or for a specified period. Incentive exemptions are typically in the latter category. An entire property may be exempt, or a fraction of its value may be exempt, which is called a partial exemption. Standards for eligibility may be loosely or tightly drawn. If loosely drawn, the exemptions will be easier to administer but relief may go to those who do not need it. In contrast, tighter standards focus tax relief where it is most needed or wanted, but the costs of administration are greater.

Proper administration of exemptions requires that eligibility requirements be met. Most exemptions require an initial application and periodic renewals. Documents or other data establishing eligibility may be required. The applicant must sign the initial or renewal application attesting to the correctness of the information on the application or that the applicant is eligible for the exemption.

It is not good practice to accept applications without question or verification. Field checks may be used to verify that property is being used for exempt purposes. Compassionate exemptions for the elderly and others with a limited ability to pay should be designed to ensure that properties are not lost due to delinquent taxes because of this diminished ability. Sales of exempt properties should be flagged so

99

that exemptions are removed in the next tax year unless the new owner establishes eligibility for the exemption.

It is desirable to appraise exempt properties so that governments can estimate the costs of granting exemptions.

A code for each exemption should be developed. The codes can be used to select tax-exempt properties with status changes, properties that need to receive renewal applications, and the like. They can also be used to follow up non-response and monitor activities in general (especially exemptions with finite durations). Finally, they can be used to produce statistical reports, to request grants or payments in lieu of property taxes.

The Polish government should review the desirability of continuing existing exemptions. The legislation authorizing exemptions should be consolidated in the property tax act.

9. Roll Preparation, Interface with Tax Collection System, and Other Interfaces

The ultimate objective of the property tax administration is a legal, equitable apportionment of property taxes. Achieving this goal not only requires accurate valuations and correct administration of exemptions, as noted above, but also taxpayer opportunities to review and appeal assessments and, finally, careful attention to a number of administrative details.

9.1 Roll Preparation

The preparation of assessment or tax rolls (which are extensions of assessment rolls) involves compiling comprehensive lists of properties, their owners, assessed values, and, in the case of tax rolls, the amount of taxes assessed against the properties. If the data are computerized, record maintenance is easier, and the roll can be produced quickly and accurately.

Multi-year processing smooths work loads, reduces data ambiguities, and improves quality control. Two assessment data files are maintained, current-year and next-year. Next-year begins as a copy of the current-year file. Changes in ownership, changes in legal descriptions, new construction, and the like are entered into the next-year file as they occur.

An assessment district may comprise several, perhaps overlapping, tax districts. If so, the property tax administrator is responsible for identifying the properties in each district so they can be billed correctly. The usual procedure is to overlay tax district boundaries on cadastral maps or on index maps. Each "tax rate area" is designated as illustrated. The proper tax rate area code is included in each parcel record. Alternatively, files may be maintained of the parcels in each area. The code identifies a table that lists tax jurisdictions and applicable tax rates.

Tax bills are usually mailed shortly after the appeal period.

9.2 Value Coordination, Interface with the Tax Collection System, and Other Interfaces

The property tax administration should consider whether it should coordinate its property value estimates with other governmental uses of these values and, if so, how to do so. (However, it should be noted that valuations for property tax purposes are not necessarily identical to those used for insurance, compensation, going public, privatization, and so on.)

The property tax system should have links to the tax collection system, beyond the preparation of valuation or tax registers. The valuations of properties with delinquent taxes should be reviewed. A pattern of tax delinquencies may be evidence that values are too high, or are inconsistent. Delinquent taxes assumed by buyers tend to depress sales prices. It is inadvisable to allow owners of tax-delinquent properties to divide those properties.

The property tax administration should anticipate having to make statistical reports for use by the government.

10. Public Information and Relations

Successful implementation of the new tax on immovable property requires public acceptance and cooperation. Efforts to secure this acceptance should occur at all levels of the tax administration. Policy makers and tax administrators must communicate effectively with taxpayers. The rationale for the tax, how it is administered, and taxpayers' rights and responsibilities must be explained.

An effective, accessible appeal system is essential. Inquiries should receive responses. The tax administration should take every opportunity to demonstrate that the tax is enforced fairly.

Property owners form opinions about government in general based on experiences with actual offices and officials. Property tax administrators have indirect contact with all property owners through the assessment notices and are in direct contact with owners when they inquire about their assessments.

Records should be open, available for public inspection whenever their information is not confidential.

Because the appeal process is an important part of the overall property tax system and the taxpayer is responsible for auditing the work of tax administrators, access to the appeal process should be convenient and inexpensive, especially at the beginning. (Later stages of the process may involve complex appraisal and legal issues, and more costly expert assistance may be required.)

Property tax administration should be viewed as public service. The chief service provided is equitable assessment for all. The public should feel welcome in the offices of the property tax administration and be reassured that the tax administration is sincerely interested in their needs.

Many individuals will need personal service, perhaps explanation of an assessment, help with an exemption application, or information about specific real estate. Property tax administrators receive many such requests. Systems and procedures should be established to satisfy these requests effectively and efficiently. Administrators should also anticipate that some taxpayers will be angry. The staff should have training in how to diffuse or deflect anger while also providing the needed service.

It cannot be assumed that the public understands property taxation and tax administration. An informative publication is an excellent tool to use in a public education program.

The property tax administration should realize that it has several clients, including homeowners, business people, and other government officials. Many tools and techniques are needed, including public reports, audiovisual materials, and press releases and briefings. Taxpayer obligations should be well publicized. Every member of the tax administration staff should receive training in how to deal with the public and how to respond to questions.

11. Oversight: Control and Appeals

11.1 Introduction

Despite the use of advanced techniques and the best efforts of tax administrators, results are not always equitable or consistent. Factual and judgmental errors may occur, and even the best techniques cannot guarantee good estimates of market value in every instance. Therefore, methods for discovery and correction of errors within the system must be developed outside of the tax administration itself.

One method would be to establish an independent quality control office, perhaps at a different level of government. In the United States, where property tax administration is usually the responsibility of local government, most states have established offices that oversee and audit the procedures and value conclusions of the local assessment offices. In Poland, an auditor general's office or national tax board might perform this function.

Another, more logical, method for Poland would be to establish local boards responsible for reviewing valuations developed by the tax administration and hearing appeals from property owners themselves. These independent boards would enable the property owner to be heard first by a board rather than by the courts.

11.2 The Board of Equalization

Local board members would preferably have some background in law, valuation, or accountancy. The value of real estate valuation experience is clear. Accounting experience can also be of value because accountants deal with financial records and decisions. An attorney's experience is of value because legislative and case law is involved in the administration of valuation practices.

An auditor general or national board would have an independent responsibility of ensuring consistency in the application of appraisal methods and the national laws with respect to the taxation of immovable property. To fulfill this responsibility, a board would need an audit staff that reviews the systems, policies and procedures of the tax administration. This may involve reappraisal of a sample of properties valued by the tax administration. One final responsibility is the reporting of local assessment practices and activities to decision-makers at the national level.

11.3 Local Appeal Boards

It is always possible that the property tax administration has made an error. Even a staff fully committed to the objective of unbiased appraisals may make occasional inaccurate appraisals, and, indeed, the staff should not be assumed to be unbiased at all times. For these reasons, the management of the property tax administration should encourage employees to work cooperatively with taxpayers so that additional information bearing on the accuracy of the valuations can be brought to light.

In addition, citizens should have the opportunity for an independent hearing if they feel the property tax administration is in error. Appeal boards should be local for the convenience of taxpayers. Appointments could be made by the governing bodies of *gminas*, or by the courts. The number of appeal board members could vary but because the decisions would be by vote of the board, an odd number is recommended. Three would be a workable number. The board should have a chairperson.

97

Members should be selected from the public and paid at a level that covers expenses and possibly a modest compensation as well. Members should function as private citizens, not government officials. This is why compensation is minimal and demands on the board members' time should be limited.

Board membership is not meant to be a fulltime occupation. So that members do not find themselves working full time, scheduled board activities should reflect a commitment of no more than one or two days a week.

The backgrounds of the board members are less important than the fact that they are appointed citizens who are not in full time government service. Because the board would be dealing with the value of immovable property, it is recommended that at least one board member have an appraisal background. Other possible occupations include sales agent and property manager.

Board members should not decide their own appeals or those of personal friends or close relatives.

To preserve continuity, board members could serve staggered terms. For example, if the term were set at three years and the board had three members, the board would add only one new appointee per year. Members could be eligible for reappointment although the appointing officials may decide to impose some kind of term limits.

The board may need clerical support to schedule hearings, provide space for the hearings, provide necessary notices, and perform such other tasks as may be necessary for the smooth functioning of the hearings. The property tax administration could perform this function. The tax administration also might be responsible for instructing new board members about their responsibilities.

A written record of hearings is desirable if the appellant wishes to appeal the board's decision to the courts.

Ordinary appeals should be informal and taxpayers should not be required to obtain the assistance of attorneys or other experts although they should have the right to do so if they wish. The taxpayer, the property tax administration, and the *gmina* tax office should receive notice of the board's decision.

Valuation dates, appeals periods, the time limits within which appeals must be heard, refund periods (if applicable), the time limit for which the appeals board decision applies, and other crucial timing factors should be in the national legislation governing the assessment and assessment appeal process. This will give some assurance of national uniformity in the administration of property owners' rights.

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99

Appendix 1

Policy Options and Recommendations for Poland

1. Tax Base (Definitions and Exemptions)

The proposed tax base is defined to include land and buildings. Exemptions have been narrowly defined to only property used by nonprofit institutions under regulations issued by the Ministry of Finance, local, regional national and foreign government property, and international organizations as under regulations issued by the Ministry of Finance.

This is a change from the existing set of property tax laws which provide a wide variety of exemptions. Existing property tax exemptions are enumerated in approximately 32 different laws. The exemptions have a major impact on the property tax revenue potential and introduce economic distortions. In Krakow, the treasurer estimates that 1/3 of all land located in the downtown area is exempted because of its religious connection. About 1/5 of the area in the old city is exempted because it is universities/high schools.

In essence, exemptions are equivalent to providing a subsidy to certain properties. That is, those properties which are exempted are allowed to use the property-tax funded government services for free. These subsidies have historically been given for a variety of purposes--to encourage certain industrial investment, regional development, cultural institutions, home ownership, environmental preservation, etc. Although perhaps good intentions, subsidies unfortunately introduce economic distortions and administrative difficulties. For example, an exemption for R&D industry which provides "externalities" throughout Poland should not be subsidized by the GMINA in the form of reduced property tax payment.

The tax base definition and exemptions are standardized throughout Poland in order to avoid economic distortions and to provide a consistent tax base for possible use in allocating central-local transfers.

2. Tax Rate Structure

The tax rate structure has been simplified to a uniform effective tax rate. The recommended tax rate is 1 percent applied to the taxable value of each parcel. The taxable value is defined as the total fiscal value of the parcel multiplied by an assessment ratio. This

uniform assessment ratio is defined to range between 80 to 100 percent, set by the Council of Ministers. The legal tax rate multiplied by the assessment ratio means that the effective legal tax rate is 0.8 to 1.0 percent of the total fiscal value of the parcel.

This tax rate structure provides a number of advantages:

- a. A uniform rate will prevent distortions which are inherent in differential tax rates across local governments, by property use and by property tenure. In addition to the reduced economic distortions, a simple uniform rate will facilitate the tax assessment function.
- b. A flexible (but uniform) assessment ratio will provide a degree of flexibility to the Government. The assessment ratio can be adjusted to phase-in an ad valorem property tax base as well as to phase-in changes in the periodic revaluations. This assessment ratio is to be set by the Council of Ministers rather than requiring an amendment to the property tax law itself.

The tax rate has been established as a uniform rate rather than giving local governments the flexibility in setting their own tax rates. This nationally-established uniformity is considered important in the early stages of an ad valorem tax system. This restrictive freedom forces local governments to improve administration rather than depend on tax policy changes to increase revenue yield. That is, the government must concentrate their efforts on taxbase coverage (information and valuation), collection, enforcement, and taxpayer service rather than relying on increases in tax rates to improve property tax revenue yield. As the local governments and the property tax system mature, it will be possible to change the law to provide local government discretion in rate setting. At that time, it will be important for Poland to address the questions concerning differential rates by region, tenure and property use. At this beginning stage, this discretion must be constrained to allow the administrative system time to mature.

3. Valuation Deduction

A flat unit valuation deduction is provided from the improvement fiscal value. This flat valuation deduction which is set by the Council of Ministers will be subtracted from the Improvement Fiscal Value prior to the assessment of the property tax. This unit deduction has a number of advantages:

- a. It allows low value buildings (below the determined threshold) to be exempt from the property tax, thus effectively providing a land tax for the lower value properties.
- b. This allows scarce valuation resources to concentrate efforts on higher value buildings.
- c. It effectively taxes buildings at a lower rate than land thus improving the economic efficiency of the tax.
- d. It increases the progressivity of the property tax by providing for a flat unit valuation deduction rather than an ad valorem deduction.

4. Tax Waiver Exemption

An tax waiver is provided for all properties with a tax liability below a threshold set by the Council of Ministers. This tax waiver is provided for low-value properties falling below a threshold which must be set in accordance with the current Polish economic situation. This tax waiver will save on administrative costs, make the property tax more progressive under certain assumptions, and ease the property tax collection problems. The revenue foregone will be small.

The alternative to this exemption is to have the property owner pay the normally assessed tax or to assess a flat unit charge to each property under the threshold. Each of these alternatives has pros and cons. For example, the second alternative would provide for some additional revenue but at an increased administrative cost. The second alternative may allow political gain by having all (nonexempt) properties paying at least some property tax but may increase the political/administrative costs of having numerous small tax delinquent accounts.

5. Tax Liability Definition

Tax liability is defined to be the owner (if known) or the beneficiary as determined by the tax department. This broad definition of tax liability is important in transitional economies which are involved in reestablishing the legal tenure system. Property tax liability must be separated from issues of legal ownership and restitution. In countries where ownership still resides in the State or in uncertain legal titles, it is important for the tax liability to rest on either the legal owner or the beneficiary of the property. As the legal tenure is reestablished, the property tax liability will increasingly fall directly on the legal owner.

Property tax reform should not be contingent on the resolution of legal titles or restitution issues. Property should and can be taxed regardless of clear legal ownership. Countries throughout the world have for hundreds of years taxed property without a clear legal system. In fact, many developing countries today have good property tax systems without a good legal registration system. Having the property tax liability defined broadly enables the countries to undertake property tax reform while simultaneously addressing the issues resulting from clear legal title and restitution.

6. Property Valuation Definitions

The property valuation to be used for tax purposes is defined in terms of "fiscal value" rather than in terms of "fair market value." The use of "fiscal value" was chosen specifically for two major reasons: First, to avoid the myriad of problems associated with the legal definition of "fair market value." Second, to establish the principle that valuation for property tax purposes is not necessarily the same as valuation for insurance, land compensation, privatization, or going public. This second principle is often referred to as "nonuniformity" rather than "uniformity."

The taxable value in the law is defined as the total fiscal value multiplied by an assessment ratio. This assessment ratio is determined by the Council of Ministers between 80 and 100 percent.

The total fiscal value is defined as the summation of the parcel's land fiscal value and improvement fiscal value. The land fiscal value is determined by multiplying the land area by the fiscal land price associated to the land in the property

location. This fiscal land price is to be determined by the Voidvoda Cadastre office based on similar characteristic zones (also known as homogeneous land value zones). The improvement fiscal value is determined by multiplying the floor area by the fiscal improvement price of each construction type. These fiscal improvement prices are to be determined by the Voidvoda Cadastre office based on a set of improvement types based on clearly recognizable objective characteristics. These fiscal improvement prices will be adjusted for depreciation up to a maximum of 40 percent.

The methods for valuing these fiscal values are to be determined by regulations issued by the Ministry of Finance. It is expected that the land fiscal values will be determined primarily based on the market approach. The improvement fiscal value is expected to be determined by the market, cost or income approach. The exact valuation technique chosen will be determined by the market data availability and staff capacity which will change as the market information and staff capacity improves.

The proposed valuation approach does not allow for a large number of adjustments to either the land or improvement values. This restrictive approach has two major reasons:

- a. There is the lack of supportive market transaction data necessary to support a large number of quantitative and qualitative adjustments. Thus, although these adjustments may theoretically improve market value predictions, the supportive data is not available in newly emerging economies.
- b. Introducing an ad valorem property tax base will necessarily increase appeals from the taxpaying public. A property tax system based on land and building area can only be appealed against the physical information or the assessment decision. These are appeals against more "objective" characteristics. In contrast, a property tax system based on "value" can be appealed against both the physical information and assessment decisions as well as the estimated value for the property. This means that the appeals can be made against both "objective" characteristics and "subjective" opinions of value. To avoid a large number of taxpayer appeals in the early stages of an ad valorem property tax, it is recommended that the factors used for determining fiscal value be as objective as possible based on quantitatively-determinable physical characteristics. These characteristics would include measurable land and improvement area, physical construction type, property use, location, and age of construction. Qualitative characteristics such as layout design and neighborhood quality would not be used. This will avoid a major source of appeals based on opinion rather than more objective criteria.

This restriction on the number of adjustments will be maintained until the quality and quantity of market information is improved, the quality and experience of the valuation staff is enhanced, and the political acceptance of the property tax is developed. Overtime the valuation methods can be modified to include more adjustments as necessary.

The proposed law does not allow for individual valuation for special purpose, unique properties. In the early stages of introducing an ad valorem tax, it is important to concentrate scarce political, technical and financial resources on establishing the broad parameters and general acceptance of the ad valorem tax system rather than finetuning individual valuations. It is important to follow a strategy to ultimately win the war rather than each individual battle. Each socioeconomic system can only absorb a certain level of changes at each stage. It is thus important to sacrifice theoretical excellence for practical implementation, especially at the early stages of the reform effort.

The law does provide that periodic revaluations be undertaken every three -five years. In interim years, the law provides that the fiscal prices, deductions and waivers are indexed to the consumer price index (CPI) as issued by the Department of Statistics. This indexation is important for several reasons:

- a. It maintains the real value of the tax liability thus ensuring that GMINA tax revenues keep up with inflation.
- b. It allows the tax liability to be adjusted periodically between revaluations thus lessening the impact brought about by a major revaluation. That is, most revaluations (especially in urban areas) will tend to increase the value of the property. The longer the delay in revaluation, the larger the increase in valuation. The larger the increase, the larger the change in property tax assessment. The larger the change in tax assessment, the more taxpayer appeals and objections. Small increases overtime minimizes the possible political resistance.

It is important to understand that the indexation is not equivalent to a revaluation. Indexation only maintains the "real" value of the relative property values. Indexation maintains the "absolute" level of the valuations. A revaluation would adjust the "relative" levels of property valuations. Both the absolute and relative levels of property valuation is important for property tax purposes. Quality control measures such as the assessment sales

100

ratio measures the level of valuation while the coefficient of dispersion measures the relative levels of valuation.

7. Tax Liability Notification

The tax liability notification is required 30 days prior to the tax payment due dates. The notification should contain a minimum of property tax-related information. Although the GMINA should be interested in promoting taxpayer service by using any and all means to notify the taxpayers, the law is drafted so that the Government is not legally bound to individually notify each taxpayer in order to establish tax liability. That is, the tax liability is established with or without the individual notification of the taxpayer. This avoids a number of potential legal problems with establishing legal liability and subsequent compliance enforcement. The announcement that proper notification has been issued shall be made through publication in the State Gazette or other publications deemed official, in at least one newspaper of regional circulation, and by such other methods as the GMINA deems necessary.

8. Revenue Collection:

The GMINA is given the flexibility to designate the payment points for the property tax. It is expected that the GMINA will ensure that the payment points are convenient and that the payment procedures are simple in order to minimize compliance costs. At the same time, it is expected that the GMINA will establish a revenue accounting system that will maintain the integrity of the funds collected and generate an accurate and timely delinquency list.

The key is to minimize administrative and compliance costs. Taxpayer involvement with the property tax is largely through the payment process. That is, the tax administration is responsible for identification, valuing, assessing, and billing for property taxation. Taxpayers are only required to pay the bill--thus, property taxpayer compliance costs are largely calculated from the time and effort required to pay the tax liability. Thus, considerable effort should be exerted to reduce the compliance costs while at the same time keeping administrative costs within control.

This proposed law recommends that the payment collection system be based on the following principles:

- minimize compliance costs by simplifying the payment procedures.
- minimize administrative costs by simplifying payment procedures, reducing the number of transactions and simplifying the payment control system.

The law provides extreme flexibility in determining the payment points for tax collection. The GMINA can assign these for specific geographic zones. As is currently practiced, it is expected that the GMINA will utilize the banks to the extent possible for the teller and accounting functions of tax collection. The key is to minimize the compliance costs for the taxpayer while minimizing the administrative costs.

Our interviews indicated that about 25% of individual taxpayers pay through the treasury while 75% pay either through banks or post offices. All commercial taxpayers pay through the bank or post office. Banks are entitled to charge taxpayers 4.6 percent of the tax payment for the privilege of paying through non-designated banks and post offices. Krakow has signed an agreement with one of the banks to accept taxpayments for a 1 percent transaction fee. It is estimated that the banks keep the money for less than one week. Using the banking sector should be encouraged in any property tax reform effort.

The law provides only two payments per year in order to minimize the compliance and administrative costs. Currently noncommercial taxpayers are granted four installments while commercial taxpayers are granted 12 installments. There is a tradeoff between compliance and administration costs. Tax bills are lumpy thus taxpayers prefer to pay either late or spread payment over time for cash flow reasons. Governments prefer to receive funds either early and/or periodically for cash flow reasons. Administrative and compliance costs increase with the number of installments. High rates of inflation will diminish the real value of tax revenue over time, unless the tax liabilities are indexed for inflation.

9. Enforcement:

Despite best efforts at taxpayer service, an enforcement mechanism is needed in all tax systems to deter noncompliance and fraudulent conduct by taxpayers. Large amounts of delinquent accounts can be attributed to either lack of an effective penalty structure, poor

administration, and/or lack of political will. To combat delinquency, the tax administration must produce and maintain a delinquency list, issue demand notices, and administer a series of sanctions and penalties.

In contrast to the existing situation, this law provides the GMINA will explicit enforcement powers. Our interviews indicated that the current laws provide for no enforcement powers to the GMINA. All enforcement power is the responsibility of the central government treasury office under a 1983 inland revenue law. For example, the central government is the only level which can seize bank accounts for nonpayment.

This law specifically rectifies this situation by providing explicit enforcement power to the GMINA level. The GMINA level is allowed to impose a combination of sanctions and penalties to ensure compliance.

A combination of sanctions and penalties should be initiated to ensure compliance. For example, it would be possible for the GMINA and the Voidvoda levels to initiate a set of sanctions which could require a tax clearance certificate for all property-related services (eg, loans, building permits, development licenses, utilities. A system of tax liens (caveats or encumbrances) on the title should also be used to enforce the sanction. The effectiveness of the sanctions depends on the ability to cross-reference the services with the taxpayer.

Tax clearance certificates and tax liens are very effective ways to apply sanctions. The two approaches should be used concurrently--they are not mutually exclusive. Tax clearance certificates are a passive way for the government to apply sanctions. That is, the government waits until the taxpayer requires a tax clearance certificate for a specific property-related (or perhaps a person-related) service. Tax liens, on the other hand, require that the government take an active role to aggressively apply a tax lien to the property title. Tax clearance certificates, in general, are not as effective as tax liens. For example, in the case of loans, most countries only require a tax clearance certificate if the loan is for the specific property. A tax certificate is not required if the property is to be used as collateral for a business loan. A tax lien on the property would be an effective way to impose a sanction on a broader base.

Legal systems must specify the precedence of liens. Government debt (ie, tax liens) must have precedence over all other liens (eg, housing mortgages, business loans, or personal loans). This means that in case of property foreclosure (ie, sale), the proceeds from the sale

of a property will first pay the government tax debt. All remaining monies will be used to settle other outstanding debt obligations with the residual (if available) returning to the property owner.

In addition to the tax clearance certificates and tax lien options, the proposed law enables the GMINA to impose a system of penalties and interest on outstanding tax liabilities. An administrative fine can be imposed on the owner and/or occupant who fails to report information on the taxable property. Third party penalties will be regulated by the Ministry of Finance. Interest shall accrue automatically at a rate of prime plus two percentage points per month up to a total of 24 months. The interest will stop after 24 months in order to provide an incentive to the GMINA government to enforce the tax in a timely manner.

The law allows the GMINA government to enforce against the owner (if known) rather than against the property. This option provides flexibility to the Government to seize movable property to settle a tax claim if the movable property can be clearly identified with the owner of the property. This flexibility is important when the outstanding tax liability is so much smaller than the value of the property.

10. Appeals

The introduction of an ad valorem property tax system will generate a large increase in the appeals. Under an area-based system, the appeals tend to be based on physical property characteristics or assessment. Area-based appeals tend to be based on objective criteria. In contrast, appeals under an ad valorem system tend to include those appeals as well as appeals against opinions of value.

The current property tax laws do not contain any provisions for the appeals process. As in many countries, the appeals process for all taxes may be covered under separate legislation. However, it is our understanding that all of the major taxes have a noticeable absence of appeals provisions. This needs to be rectified.

The proposed laws stipulates that the appeals regulations will be issued by the Ministry of Finance. It is recommended that these appeals regulations contain an administrative appeal and the option for judicial review if necessary. There will be two types of appeals--one against the property information and tax assessment itself and one against the estimated values for the property. This first set of appeals is similar to the type of appeals

currently experienced in Poland under the area-based system. Therefore the existing appeals mechanism might continue to be effective. The second set of appeals will be unique to an ad valorem property tax thus requiring a new set of procedures to be established. These appeals against estimated values will be lodged at the Voidvoda level which is responsible for valuing property under the proposed law.

11. Property Tax Institutional Structure

The property tax can be institutionalized in a variety of configurations. In accordance with existing Polish law, the property tax is to be a local tax. Although the policy is established by the central government, the responsibility for tax assessment and collection is given to the GMINA level of government. The proposed law confirms and expands this assignment of assessment, billing, collection and enforcement responsibilities to the GMINA. However, the proposed law allocates the property information management and valuation responsibilities to the Voidvoda level.

This division of responsibilities is provided for a number of important reasons:

- a. There is a legal basis for assigning the property information and valuation responsibility to the Voidvoda cadastre office.

This legal basis is a point of contention in Poland. According to the National Cadastre Law, the cadastre information is to be used for the assessment of property-related taxes. However, according to the urban property tax law, the GMINA is required to collect property-related information directly from the taxpayers--in the form of a self-declaration-assessment. These two laws appear to be contradictory.

- b. The Voidvoda cadastre is the most comprehensive inventory of property-related data. It is currently being used to assess the central-level transfer tax and could easily be upgraded to provide a complete fiscal cadastre (see below for specific recommendations). Creating a property tax cadastre at the GMINA level would duplicate scarce resources.
- c. There are economies of scale in mass valuation of property tax purposes. Thus, scarce valuation-related technical staff should be pooled at the Voidvoda level rather than spreading them too thin throughout the GMINA governments. In the early stages of the ad valorem tax, it will be important to mobilize and train valuers in computer-assisted mass appraisal techniques.

- d. Consistency in property valuation standards throughout a Voivoda will be important to achieve equity in property tax administration and in possible central-local transfers. Maintaining the valuation at the Voivoda level will make it unnecessary to establish a separate property tax equalization board in the future.

As the following table indicates, property tax administration will be divided between the central government, local government and third parties. The central government will be responsible for the property tax policy, management and valuation of property information. the local government will be responsible for tax assessment, billing, collection and enforcement. Third parties will be responsible for providing property and market-related information (eg, notaries, brokers, banks, taxpayers), assisting in revenue collection (eg, banks), and assisting in enforcement (eg, tax clearance certificates and tax liens).

TABLE 1: Division of Institutional Responsibilities for Property Tax Administration in Poland

ACTIVITY	CENTRAL GOVERNMENT	VOIDVODA CADASTRE	GMINA GOVERNMENT	THIRD PARTY
Property Information		Primary	Secondary	Secondary
Property Valuation		Primary	N/A	N/A
Tax Assessment		N/A	Primary	N/A
Collection		N/A	Primary	Primary
Enforcement		Secondary	Primary	Secondary
Appeals		Primary	Primary	N/A
Policy	Primary			

Appendix 2
Draft Law on Real Property in Poland

Article 101 Tax Imposed

An annual tax is hereby imposed upon all non-exempt real property located within Poland.

Article 102 Amount of Tax

The amount of the tax imposed by Article 101 shall be 1 percent of Taxable Value as determined by the Voidvoda Cadastre Office.

Article 103 Assessment Date

The tax will be assessed on all taxable properties based on the value of the property as of 1 January of the taxable year.

112

Chapter 1
Definitions

Article 111 Definitions Related to Property Identification

- (a) **Real Property.**--Real property consists of land and improvements.
- (b) **Improvements.**--Improvements consist of buildings, and all other fixtures and immovable objects attached to the land as specified by regulations issued by the Ministry of Finance.
- (c) **Taxable Property.**--Each taxable property shall consist of a single contiguous parcel of land together with all improvements upon it as determined by the Voidvoda Cadastre Office under regulations issued by the Ministry of Finance.

Article 112. Definitions Related to Valuation

- (a) **Taxable Value.**--The Taxable Value of property shall be the product of its Total Fiscal Value multiplied by the Assessment Ratio set for the taxable year by the Council of Ministers.
- (b) **Total Fiscal Value.**-- The Total Fiscal Value of a property shall be the summation of the Land Fiscal Value and Improvements Fiscal Value.
- (c) **Land Fiscal Value of a Property.**-- The Land Fiscal Value of a property shall be calculated by multiplying its land area as expressed by number of full square meters by the Fiscal Land Price associated to the land in the property location.

- (d) **Improvements Fiscal Value of a Property.--** The Improvement Fiscal Value of a property shall be calculated as the summation of all Improvement Fiscal Values associated with the different improvement components of the property. These individual improvement component fiscal values shall be calculated by multiplying its floor area as expressed by number of full square meters by the Fiscal Improvement Price of its construction type.
- (e) **Fiscal Land Price.--** The Voidvoda Cadastre Office shall define Similar Characteristics Zones and their associated Fiscal Price per unit shall be based on estimated Fair Market Value per unit.
- (f) **Fiscal Improvement Prices.--** The Voidvoda Cadastre Office shall define a set of Improvement Types, based on clearly recognizable objective characteristics. The Voidvoda Cadastre Office shall estimate the Fiscal Prices for each improvement type. These Fiscal Prices will be adjusted for depreciation using the Depreciation Factors for improvements.
- (g) **Depreciation Factor for Improvements.--** The Voidvoda Cadastre Office shall stipulate Depreciation Factors for each improvement type defined under paragraph (f) not to exceed 40 percent.
- (h) **Assessment Ratio.--**The Assessment Ratio shall be a factor not less than 0.8 nor greater than 1.0, set annually by the Council of Ministers and applied uniformly to the Total Fiscal Value of each taxable property in that taxable year.

100

Chapter 2
Deductions

Article 121 Deduction from Improvement Fiscal Value

- (a) **Deduction from Improvement Fiscal Value.--** For purposes of calculating the Total Fiscal Value under Article 112, paragraph (b) each taxable property shall receive a single deduction of ZI (insert appropriate value) from the Improvements Fiscal Value of the Property.

- (b) **Adjustments to Deduction.--**The amount of the deduction specified in paragraph (a) may be varied by the Council of Ministers only during a periodic revaluation as defined under Article 142 (a). The deduction amount shall be uniform for all taxable properties in any taxable year.

115

Chapter 3
Exemptions

Article 131 Exempt Property

The following properties shall be exempt from the tax imposed by Article 101:

- (a) Property owned by non-profit religious, charitable and educational organizations and used in the performance of their non-profit functions.
- (b) Property owned by national, regional, local or foreign governments.
- (c) Property owned by international organizations in accordance with international law.

Article 132 Registration Required

No property shall be exempt under Article 131 unless its ownership and use have been registered in such manner as the Ministry of Finance shall prescribe.

Article 133 Tax Waiver

- (a) Tax waived.--The tax imposed upon a taxable property by Article 101 shall be waived for any taxable year in which that liability is less than or equal to Zl (insert appropriate value).
- (b) Threshold adjustments.--The tax threshold amount designated in paragraph (a) may be varied by the Ministry of Finance only during a periodic revaluation as defined under Article 142 (a). The tax threshold amount shall be uniform for all taxable properties in any taxable year.

Chapter 4
Property Valuation and Property Information

Article 141 Property Valuation Methods

The Ministry of Finance shall prescribe by regulation uniform methods by which the Voidvoda Cadastre Office shall determine the Taxable Values of all property under Article 112 (a).

Article 142 Revaluation; Indexation

- (a) **Periodic Revaluation.**--The Voidvoda Cadastre Office shall review and update the Land Fiscal Prices, Improvement Fiscal Prices, Deduction from Improvement Fiscal Value and Tax Waiver Threshold, not more frequently than once every three years nor less frequently than once every five years.

- (b) **Indexation.**--In taxable years in which the fiscal prices, deduction, and waiver are not subject to the periodic review required by paragraph (a) they shall be adjusted by the CPI as issued by the Department of Statistics.

Article 143 Obligation to Supply Property Valuation and Property Information

- (a) **Obligation to Provide Information.**--All persons owning, occupying, holding security interests in, leasing or managing taxable property and all offices maintaining property-related information including but not limited to notaries and banks shall be responsible for supplying to the Voidvoda Cadastre Office and GMINA such information concerning the legal, physical and financial characteristics of taxable property as the Ministry of Finance may by regulation require.

- (b) **Right of Inspection.--**The Ministry of Finance may by regulation prescribe the procedures by which the Voidvoda Cadastre Office may obtain entry upon the premises of taxable property for purposes of valuation.
- (c) **Valuation in the Absence of Information.--**When information required to be furnished under paragraph (a) has not been supplied or is not available, or when the right of inspection under paragraph (b) has been refused, the Voidvoda Cadastre Office may value the property at issue on the basis of such information as has been provided to it.

Chapter 5
Notification and Billing

Article 151 Notification

- (a) **Date of Notification.--**Notification of tax liability shall be issued by the GMINA not less than 30 days prior to the date upon which payment of the tax imposed by Article 101 is due.

- (b) **Form of Notification.--**The notification required by paragraph (a) shall include at least the parcel identification number, the name of the owner, if known, the property address, the area of land and improvements, the Total Fiscal Value of the property, the Taxable Value of the property, the tax liability, the place and method of payment, and the date upon which payment is due. The notification should be given to the owner and/or occupant of the property or to other designated places as the Ministry of Finance may by regulation require.

- (c) **Public Announcement.--**Announcement that the notification required by paragraph (a) has been issued shall be made through publication in the State Gazette or other publications deemed official, in at least one newspaper of regional circulation, and by such other methods as the GMINA deems necessary.

Article 152 Billing and Payment

- (a) **Time of Billing.**--Tax bills shall be issued and available for payment at each designated payment point not less than 30 days prior to the date that payment of the tax imposed by Article 101 is due.

- (b) **Designated Payment Points.**--The GMINA shall by regulation designate for each geographic region one or more specific points at which tax bills for taxable properties located within that area shall be paid.

- (c) **Due Dates.**--The tax imposed by Article 101 shall be due in two equal installments on May 31 and November 30 of each taxable year.

Chapter 6
Appeals and Enforcement

Article 161 Appeals

- (a) **Time and Manner.**-- Regulations as shall be issued by the Ministry of Finance, shall govern the time and manner for contesting property information and valuation as computed by the Voidvoda Cadastre Office and the tax assessment as computed by the GMINA.
- (b) **Payment Required for Judicial Appeal.**--No appeals may be made to any court unless the tax liability in dispute has been paid.

Article 162 Fines and Interest

- (a) **Administrative Fine.**--The failure of an owner and/or occupant of the taxable property to supply information upon taxable property as required under Article 143 in a timely and accurate manner shall result in an administrative fine of 20 percent of the ultimate tax liability for that taxable year.
- (b) **Fines and Penalties** related to the failure of third parties to supply information upon taxable property as required under Article 143 in a timely and accurate manner shall be regulated by the Ministry of Finance.
- (c) **Interest.**--Interest shall accrue upon any outstanding tax liability at a rate of the prime commercial rate plus two percentage points per month up to a total of 24 months.

Article 163 Enforcement

- (a) **Enforcement by Lien.--Any unpaid tax due under this Title shall become a lien upon the taxable property in favor of the GMINA, whether or not the owner of the property has been ascertained.**

- (b) **Enforcement against the Owner.--The owner of property subject to tax under Article 101 shall be considered a person liable to pay that tax and all rights of levy and seizure provided by that chapter shall be available to enforce payment, including without limitation the collection of rents from and sale of products of the taxable property.**

- (c) **Notice and Demand.--The tax notification and bill required to be issued under Articles 151 and 152 shall constitute notice and demand from the Government.**

Chapter 7
Distribution of Revenue

Article 171 Distribution of Revenue

- (a) **Local Government Allocation.**--95 percent of all gross property tax revenue collected shall be distributed to the GMINA in which the property is located.

- (b) **Central Government Allocation.**--5 percent of all gross property tax revenue collected shall be distributed to the central government, earmarked for the administration of the property tax.

Chapter 8
Miscellaneous

Article 181 Indexation

The inflation adjustment (Consumer Price Index) as issued by the Department of Statistics shall apply to:

- (a) the deduction from Improvements Fiscal Value provided by Article 121 (a),
- (b) the tax waiver threshold designated in Article 133 (a), and
- (c) the indexation of Taxable Values prescribed by Article 142 (b).

Article 182 Administration

- (a) Valuation, Billing and Appeals.--The Voidvoda Cadastre Office shall have responsibility for the identification and valuation of real property and for appeals related to property information and valuation under Article 161.
- (b) Collection and Enforcement.--The GMINA shall have responsibility for tax assessment, for the preparation and issuance of tax notification and bills, collection, enforcement and administrative appeals under Article 161.

Chapter 9
Effective Dates and Replacement of Other Taxes

Article 191 Effective Date

The tax imposed by Article 101 shall be effective upon and after January 1, 1994.

Article 192 Replacement of Other Property-Related Taxes

The tax imposed by Article 101 shall supersede and replace all other central, local or municipal taxes related to real property, including but not limited to vacant land taxes and transfer taxes, upon enactment of this law.

Appendix 3 Real Property Taxation Explanation

Brief Overview

This law imposes a tax on all non-exempt real property located within Poland. The rate of the tax is 1 percent of taxable value as determined by the Voivoda Cadastre Office. The taxable value is calculated using an assessment ratio set between 0.8 to 1.0 of fiscal value.

The tax base includes all land and improvements. A uniform deduction of ZL(insert appropriate value) will be allowed on the improvement fiscal value of each individual property. Tax liabilities of less than ZL (insert appropriate value) will be given a tax waiver.

Exemptions from the property tax is limited exclusively to property used by non-profit religious, charitable and education organizations for their non-profit function; to property owned by national, regional, local or foreign governments; and property owned by international organizations under reciprocal international covenants. All properties requesting exemption must be registered.

Periodic property revaluations will be held between three to five years, during which the land fiscal prices, improvement fiscal prices, deduction from improvement fiscal value and tax waiver threshold will be determined. These fiscal prices, deduction and waiver will be adjusted for inflation during years in which the periodic revaluation does not occur.

The revenue will be divided between the central and local governments. The GMINA governments will receive 95 percent of the gross property tax revenue collected from properties within their jurisdictions while the central government will receive 5 percent which will be earmarked for property tax administration.

Explanation of Particular Articles

Article 101 imposes a tax on all non-exempt real property located within Poland. **Article 102** sets the property tax rate at 1 percent of taxable value. Taxable value will be determined by the Voidvoda Cadastre Office based upon uniform valuation methods established under **Article 141**. **Article 103** provides that the property tax will be assessed on 1 January of the taxable year.

Chapter 1 sets forth various definitions related to property and valuation.

Article 111 (a) defines real property to include both land and improvements. **Article 111 (b)** defines improvements to include all buildings, and other fixtures and immovable objects attached to land as specified by regulations issued by the Ministry of Finance. **Article 111 (c)** defines a taxable property as a single contiguous parcel of land together with all the improvements upon it as determined by the Voidvoda Cadastre Office under regulations issued by the Ministry of Finance.

Article 112 (a) defines the taxable value of property as the product of the total fiscal value multiplied by the assessment ratio set for the taxable year by the Council of Ministers.

Article 112 (b) defines the Total Fiscal Value of a property as the summation of the Land Fiscal Value and Improvements Fiscal Value.

Article 112 (c) defines the Land Fiscal Value of a property as the product of its land area as expressed by number of full square meters by the Fiscal Land Price associated to the land in the property location.

Article 112 (d) defines the Improvements Fiscal Value of a property as the summation of all Improvement Fiscal Values associated with the different improvement components of the property. These individual improvement component fiscal values are to be calculated by multiplying its area as expressed by number of full square meters by the Fiscal Improvement Price of its construction type.

Article 112 (e) defines the Fiscal Land Price as the estimated fair market value per unit for predefined Similar Characteristics Zones (eg, homogeneous land value zones).

Article 112 (f) defines the Fiscal Improvement Prices as the price per unit for predefined Improvement Types. The improvement types shall be based on clearly recognizable objective characteristics (eg, construction type, finish, etc.). These Fiscal Prices will be adjusted for depreciation using the Depreciation Factors for the improvement types.

Article 112 (g) allows the Voidvoda Cadastre Office to establish Depreciation Factors for Improvement Types which should not exceed 40 percent.

Article 112 (h) allows the Council of Ministers to annually set an Assessment Ratio not less than 0.8 nor greater than 1.0, applied uniformly to the Taxable Value of each taxable property in that taxable year.

Chapter 2 deals with deductions from Improvement Fiscal Value.

Article 121 (a) provides a single uniform deduction of ZL(insert appropriate value) from the Improvement Fiscal Value for each taxable property as defined under Article 111. This deduction is used for calculating the total fiscal value as calculated under Article 112 (b). Article 121 (b) states that the amount of this deduction may be varied only during a periodic revaluation as defined under Article 142 (a). The deduction amount shall be uniform for all taxable properties in any taxable year.

Chapter 3 deals with exemptions.

Article 131 provides an exemption from the real property tax to the following properties:

- (a) Property owned by non-profit religious, charitable and educational organizations and used in the performance of their non-profit functions.

- (b) Property owned by national, regional, local or foreign governments.
- (c) Property owned by international organizations under reciprocal international agreements.

Article 132 requires that exempt properties be registered as a condition of tax exemption.

Article 133 (a) allows a tax waiver upon taxable properties which have a tax liability of less than or equal to ZL(insert appropriate value) in any taxable year. **Article 133 (b)** allows this waiver threshold to be adjusted only during a periodic revaluation as defined under **Article 142 (a)**. The tax threshold amount shall be uniform for all taxable properties in any taxable year.

Chapter 4 sets forth provisions for property valuation methods, revaluation frequency, indexation and reporting obligations.

Article 141 allows for the issuance of regulations regarding the uniform methods for determining the Taxable Values of all property under **Article 112 (a)**.

Article 142(a) stipulates that the Voidvoda Cadastre Office review and update the Land Fiscal Prices, Improvement Fiscal Prices, Deduction from Improvement Fiscal Value and Tax Waiver Threshold, not more frequently than once every three years nor less frequently than once every five years.

Article 142 (b) requires that the fiscal prices, deduction, and waiver be adjusted by the inflation adjustment factor prescribed by **Article 156, paragraph (a)** in those years in which a periodic revaluation as stipulated in **Article 142 (a)** did not occur.

Article 143 (a) requires all persons owning, occupying, holding security interests in, leasing or managing taxable property and all offices maintaining property-related information including but not limited to notaries and banks to supply information concerning the legal, physical and financial characteristics of taxable property as the Ministry of Finance may by regulation require.

Article 143 (b) provides the right for the Voidvoda Cadastre Office to obtain entry upon the premises of taxable property for purposes of valuation.

Article 143 (c) allows the Voidvoda Cadastre Office to value the property based on all available information, in cases where information stipulated in **Article 143 (a)** is not provided or in cases where access to the property was not granted under provisions outlined in **Article 143 (b)**.

Chapter 5 outlines the provisions for notification and billing.

Article 151 (a) stipulates that notification of tax liability be issued by the GMINA not less than 30 days prior to the tax payment due date of 31 May and 30 November (see **Article 152 (c)**).

Article 151 (b) stipulates that the notification include at least the parcel identification number, the name of the owner, if known, the property address, the area of land and improvements, the Total Fiscal Value of the property, the Taxable Value of the property, the tax liability, the place and method of payment, and the date upon which payment is due.

Article 151 (c) requires a public announcement that the notification of tax liability has been issued. This announcement must be made through publication in the State Gazette or in other publications deemed official, in at least one newspaper of regional circulation, and by such other methods as the GMINA deems necessary.

Article 152 (a) stipulates that the tax bills be issued and available for payment at each designated payment point not less than 30 days prior to the tax payment due date.

Article 152 (b) allows the designation of one or more specific points for each geographic region at which tax bills for taxable properties located within that area shall be paid.

Article 152 (c) stipulates that the property tax shall be due in two equal installments on May 31 and November 30 of each taxable year.

Chapter 6 covers the provisions for appeals and enforcement.

Article 161 (a) provides procedural mechanisms for taxpayers to obtain administrative review of the property tax liability. The time and manner of appeal will be governed by regulations as shall be issued by the Ministry of Finance.

Article 161 (b) requires that the tax liability in dispute be paid prior to the right of appeal to any court.

Article 162 outlines the fines and interest for noncompliance. **Article 162 (a)** stipulates an administrative fine of 20 percent of the ultimate tax liability in cases where the taxpayer (eg, owner and/or occupier) fails to supply information as required in **Article 143**. **Article 162 (b)** allows the Ministry of Finance to establish fines and penalties related to the failure of third parties to supply information as required in **Article 143**. **Article 162 (c)** prescribes interest payable on delinquencies based upon the prime commercial rate plus two percentage points.

Article 163(a) provides that the tax liability (including interest, additional charges and penalty) is a lien on the taxable property, whether or not the owner of the property has been ascertained.

Article 163 (b) allows the enforcement against the owner, in cases where owner is ascertained. The owner of property subject to tax under Article 101 shall be considered a person liable to pay that tax and all rights of levy and seizure provided by that chapter shall be available to enforce payment, including without limitation the collection of rents and sale of products of the taxable property. This allows the Government to enforce against movable property in cases where the tax liability is ascertained upon an identifiable owner.

Article 163 (c) states that the tax notification and bill required to be issued under **Articles 151 and 152** shall constitute notice and demand from the Government.

Chapter 7 contains provisions to distribute the property tax revenue.

Article 171 stipulates that the GMINAs will receive 95 percent of the gross property tax revenue collected from properties located within their jurisdictions while central government will receive 5 percent of gross property tax revenues, earmarked for the administration of the property tax.

Chapter 8 contains provisions for indexation and administration.

Article 181 stipulates that the inflation adjustment prescribed by **Article 156** be applied to the deduction from Improvements Fiscal Value provided by **Article 121 (a)**, the tax liability threshold designated in **Article 133 (a)** and the indexation of Taxable Values prescribed by **Article 142 (b)**.

Article 182 assigns the responsibility for maintenance of property data base, property valuation, and appeals related to property information or valuation to the Voidvoda Cadastre Office. The responsibility for assessment, tax collection, enforcement and administrative appeals is assigned to the GMINA.

Chapter 9 sets the effective date of the property tax and contains transitional provisions repealing existing property-related taxes and providing transitional financing to local governments.

Article 191 imposes the property tax effective upon or after 1 January 1994.

Article 192 repeals all other central, local or municipal taxes related to real property, including but not limited to vacant land taxes and transfer taxes, upon enactment of this law.

Appendix 4
Analysis of the Current Law on Agriculture, Forest, Urban Property and Land

Article 1 - Property that is Taxed

- 1.) All land, forests, buildings, and other business improvements are subject to property tax.

Article 2 - Property that is Exempted

The following are exempted from property tax:

- 1.) Properties used by local self-government agencies;
- 2.) embassies, consulates and other missions given privileges by statutes, agreements or international custom;
- 3.) public roads together with the land and the right of way they occupy;
- 4.) improvements other than buildings and the land they occupy used exclusively for railroads;
- 5.) improvements other than buildings used exclusively for airports, sea and river harbors;
- 6.) improvements other than buildings and the land they occupy used exclusively for electrical power generation, power lines, gas heating, fuel, and water pipelines, sewage facilities, and water utility district station buildings;
- 7.) land occupied by water storage reservoirs, hydroelectric plan reservoirs, land under flowing water and navigable channels;
- 8.) utility buildings used in agricultural business;
- 9.) property used by non-profit societies fore statutory education, science, physical education, and sportswork with children, and land used permanently for campsites and resorts for children;
- 10.) non-profit buildings and lands entered in the national historical landmark register;
- 11.) Land under lakes and moving water, land where communal water reservoirs are located, and land under flood control levies;
- 12.) Individual plots of agricultural co-op members who are of retirement age or are class I or II handicapped;

124

- 13.) Forests unrelated to forest management;
- 14.) Forest used for recreation centers, building lots, and summer house lots;
- 15.) Forests excluded by administrative decision from forest management for purposes other than forestry;
- 16.) Forests with tree growth under 40 years in age;
- 17.) Forests in National history preserves or national parks;
- 18.) Protected forests;
- 19.) Forests in the National Historic Landmark Register

Article 3 - Entities Liable for Property Tax

- 1.) Rightful and actual owners of real property, movable building structures, farms and forests are liable for property tax.
- 2.) Occupiers, managers, farmers or users of property owned by the Treasury or Gmina are liable for property tax.
- 3.) Those who have use of real property in perpetuity, or legal entities and state owned organizations without legal entity who do not have fee estate i farms are liable for property tax.
- 4.) District forestry agencies are liable for forestry tax with regard to forests managed by the State Forestry Administration.
- 5.) Lessees of land forming part of a farm, leased according to the statutes of the Farmers' Social Security Insurance Bill are liable for the agricultural tax levied against that land.

Article 4 - Entities that are Exempt from Property Tax

Tax liability does not apply to:

- 1.) The State Treasury;
- 2.) gminas;

- 3.) the Polish Employee Vegetable Garden Association;
- 4.) Legal entities of the churches and other legal orders;
- 5.) universities and other higher education schools;
- 6.) research and development agencies;
- 7.) protected places of employment (for the handicapped);
- 8.) schools and other public education facilities;
- 9.) state owned enterprises created by the Polish National Railway Bill.

Article 5 - Measurement of Tax Base

No overlap

Article 6 - Tax Rates

No overlap

Article 7 - Timing of Tax Liability

- 1.) Tax liability for farms, forests and new building and improvements starts on January 1 of the year following the even which created the liability.
- 2.) Tax liability ends on January 1 of the year following the event which terminated the liability.
- 3.) Tax liability for other real property begins and ends on the 1st of the month following a change in tax status.
- 4.) For those who farm treasury or gmina land and first acquire use before the harvest, tax liability begins on Jan 1 of the year in which they first acquired use.

Article 7 - Data Collection and Tax Assessment

[A confusing array which differ according to status as:

- 1.) Individual;
- 2.) Legal entities;
- 3.) Non-state organizations without legal entity;
- 4.) State organizations without legal entity.]

Article 8 - Date Tax is Payable

- 1.) No information on agricultural tax.
- 2.) Tax payable on 3/15, 5/15, 9/15, and 10/15. For individuals and organizations without legal entity who are liable for real property tax, these payments are in equal installments. For forestry tax, the first two payments are equal installments for the first six months of the year, the second two for the second six months of the year.
- 3.) Legal entities and state agencies without legal entity pay real property tax monthly on the 15th.

Article 9 - Third Party Collection

Gmina councils may order the collection of taxes by subcontractors, may name the subcontractors and set the fees for:

- 1.) real property tax owed by individuals and organizations without legal entity;
- 2.) agricultural tax owed by legal entities and state owned organizations without legal entity;
- 3.) forestry tax owed by individuals.

Who is liable for the tax?

Article 1	Article 3	Article 61
<p>1) Rightful and actual owners of real property or movable building structures;</p> <p>2) Occupiers or managers of Treasury or Gmina owned real property or movable building structures;</p> <p>3) Those who have use of real property in perpetuity.</p>	<p>1) Individuals and legal entities who own farms legally or without legal title;</p> <p>2) Those who farm the land owned by the Treasury or a gmina.</p> <p>3) Legal entities and state owned organizations without legal entity who do not have fee estate in the property;</p> <p>4) Spouses are jointly liable;</p> <p>5) Lessees of land forming part of a farm, leased according to the statues of the Farmers Social Security Insurance Bill.</p>	<p>1) Individuals, legal entities and organization without legal entity who own forest on Jan. 1 of a tax year;</p> <p>2) Users of forests owned by Treasury or gmina;</p> <p>3) District forestry agencies for forests managed by the State Forestry Administration.</p>

Who is exempted?

Implicit in article 1	Article 4	Implicit in article 6
<p>The State Treasury and gminas.</p> <p>Within certain restriction: the Polish Employee Vegetable Garden Association, Legal entities of the churches and other legal orders, universities and other higher education schools, research and development agencies, protected places of employment (for the handicapped), schools and other public education facilities, the state owned enterprises created by the Polish National Railway Bill.</p>	<p>The State Treasury and gminas.</p>	<p>The State Treasury and gminas.</p>

What property is taxed?

URBAN	AGRICULTURAL	FORESTRY
Article 3	Article 1	Article 60
<p>1) Buildings; 2) Other non-agricultural or non-forestry business improvements; 3) land not subject to agricultural or forestry tax used in connection with non-agricultural or forestry business</p>	<p>Farmland, defined as the whole of croplands, forests and forested areas, land under ponds and under buildings used in connection with the farming business, provided these lands are more than one hectare in area, or the area of croplands is more than one statutory hectare. Such farm must be owned by an individual or a legal entity, an organization without legal entity, or two or more individuals or legal entities farming jointly.</p>	<p>All forests, defined as land that: 1) has continuous area covered with trees, bushes, and ground cover, or intended for forest production, classified as a natural history preserve, or entered in the national historical landmark register. 2) used in connection with forest management.</p>

What property is exempted?

Article 7	Article 2	Article 60, 62
<p>Properties used by local govt agencies; embassies and consulates; public roads; improvements other than buildings used exclusively for railroads, airports, harbors, and utilities; land under reservoirs, flowing water, and navigable channels; utility buildings used in agricultural business, property used for non-profit education, science, phys. ed., and sportswork with children, non-profit national historical landmark buildings and land.</p> <p>Gmina councils may exempt other properties.</p>	<p>1) Land under lakes and moving water, land where communal water reservoirs are located, and land under flood control levies; 2) Land classified as barren; 3) Forest and registered park land; 4) Land used in business other than agriculture; 5) Individual plots agricultural co-op members who are of retirement age or are class I or II handicapped.</p>	<p>1) Forests unrelated to forest management; 2) Forest used for recreation centers, building lots, and summer house lots; 3) Forests excluded by administrative decision from forest management for purposes other than forestry; 4) Forests with tree growth under 40 years in age; 5) Forests in National history preserves or national parks; 6) Protected forests; 7) Forests in the National Historic Landmark Register.</p> <p>Gmina councils may introduce other exemptions.</p>

How is the tax base defined?

Article 4	Article 5	Article 64
<ul style="list-style-type: none"> 1) For buildings: usable area; 2) For other improvements: initial value; 3) For land: area. 	By statutory hectares, which is determined by actual area, type and class of cropland, and a tax district classification.	Surface area of trees, adjusting for tree species, and classification of tree growth.

What are the tax rates?

Article 5	Article 7	Article 65
<ul style="list-style-type: none"> 1a) Residential buildings: zł400; 1b) non-agriculture or forestry building: zł 15,000; 1c) other buildings: zł 5,000 2) Improvements: 2% of initial value; 3a) Land used in non-agricultural or forestry business: zł 500; 3b) Other land: zł 50. 	The equivalent of the price of 125 kg of rye per statutory hectare.	Based on the sale price of mill grade coniferous lumber.

When does tax liability start?

Article 6	Article 3	Article 63
<ul style="list-style-type: none"> 1) Jan 1 of the year following construction of an improvement or first use of a building; 2) Changing circumstances are accounted for at the end of a month; 3) Tax liability is pro-rated according to # of months that liability existed. 	<ul style="list-style-type: none"> 1) Individuals and legal entities who own farms legally or without legal title as of the 1st of Jan are taxable. 2) For those who farm Treasury or gmina land: Jan 1 of the tax year in which they first acquired theuse, but if acquired after harvest time, Jan 1 of the following year. 	Jan 1 of year following termination or eligibility for exemption or exclusion.

How is data collected?

Article 6	Article 8	Article 66
Taxpayer must provide gmina agency a standardized listing of real property not later than 14 days after creation or change of tax liability.	Legal entities and state owned organizations without legal entity calculate and pay tax to the budget of the gmina in whose jurisdiction where the land is located, without being billed.	Legal entities, district forestry agencies, and organizations without legal entities required to declare tax at the gmina agency, on a pre-determined form on 2/28 for first 6 months of year, and 8/31 for last 6 months of year.

How is the tax assessed?

Article 6		Article 66
By executive decision of the voyt of the county where the taxable real property is located		Individuals assess by decision of the voyt.

When is the tax payable?

Article 6		Article 66
Individuals and organizations without legal entity pay in 4 equal installments on: 3/15, 5/15, 9/15 and 10/15. Legal entities and state agencies without legal entities pay monthly on the 15th.		1) for the first 6 months: 2 equal installments on 3/15, 5/15; 2) for the last 6 months: 2 equal installments on 9/15, 10/15.

May a third party be called to collect the tax?

Article 6	Article 9	Article 66
Yes, by vote of the Gmina council	Yes, Gmina councils may order the collection of tax of legal entities and state owned organizations without legal entities from subcontractors.	Yes, Gmina councils may order the collection of tax of individuals from subcontractors.

Appendix 5

Analysis of Land and Apartment Sales Data

This appendix describes the results of the data investigation project that was carried out to determine if the markets for land, apartments and buildings are operating efficiently, which data elements to collect relative to land, apartments and buildings that would support the valuation process necessary to implement an ad valorem property tax and the valuation model structure specific to each class of property.

The market monitoring team to date has completed their work on the apartment and vacant land class relative to land reform. They collected data on 49 different vacant land elements on 145 transactions. The lot sheet that follows and the attached data base dictionaries show these factors. A multiple regression analysis was carried out on the data. The sale price of the lot was the dependent variable, while the remaining 48 factors were the independent variables in the model. The analysis suggests that only 12 of the 48 variables contribute to the explanation of value. The model variables explain 75% of the variation in sales prices. These are factors C9, C12, C19, C20, C23, C25, C26, C30, C35, C37, C39 and C40 (see Table A). The recommendation would be that only these data elements need be collected in the mass data collection process.

The data also allowed us to compute a land price index (see Graph 7A, B, C). The results show that the relative value of land in the center of the city is 10 times greater than land 20 km out on a square meter bases. This result is consistent with international standards. The two analysis taken together would indicate the market for land is working efficiently.

The structure of the land model is also rational. The most important variables explaining value are the size of the plot and the location of the plot as measured from the center of the city. Other factors that influence value are future use of the land, what services are provided (electricity, water, telephone) and other location factors that

include nearness to public transportation, recreation areas, health services, police protection and general community amenities. Again the model is quite rational which indicates that the market for land is functioning efficiently.

The Apartment Model

The market monitoring team collected information on 47 factors for 87 sales of apartments. The building sheet attached and the data dictionary describe these factors. The analysis indicates that factors C10, C21, C13, C90, C11, C19, C20, C28, C39, C35 explained 92% of the variation in sales prices (see Table B). This analysis would indicate that only these factors need to be collected in a general data collection effort.

The structure of the model is also very rational. The principle factors explaining value are the size of the apartment (in rooms and living area), the year of renovation and the distance of the apartment from the center of the city. Structural characteristics like apartment layout, kitchen type, building type and the existence of a terrace were important. Services like phone availability and district heating were also important. On the whole the structure of the model is sound and the explanatory power of the model is high. This leads to the conclusion that the market for apartments is also rational and working efficiently.

Finally, relative to both the building and the land building model, it should be noted the date of sale was not included on the files. This omission made it impossible to time adjust sales for inflation. The results would have been better if this had been possible.

Technical Notes

The data base was analyzed using the following procedures. First, all categorical type variables were linearized using market analysis techniques that allowed the conversion

of the levels into relative values. For instance, for the factor terrace which had a raw value of 0 or 1, a linear value of .47 and 1 was assigned to the respective raw values. The data base was then screened for outliers using robust regression. This technique allows the model builder to determine which subset of the data base is homogenous enough to use for formal modeling. For land sales 25 cases were eliminated using this technique from the original total of 145 and for the apartment sales 10 cases were eliminated from a starting total of 87. The remaining cases in each class were then used in the modeling process. The calibration techniques used was multiple linear regression. This is a modeling technique that finds the value of the model variable multipliers that minimizes the sum of the errors squared and summed. We used the strip wise version of this procedure which reduced the possibility of constructing a model with variables that were highly correlated. No attempt has yet been made to create a hybrid additive/multiplicative model. This is work that is yet to be done and should improve the model considerably.

Identification No.			
Locality	District/Quarter	Section	
Lot No.	Perpetual book No.		
Coord. of centre	X =	Y =	
Lot address			
Owner			
Administrator			

Appraised value	Appraisal date
Offer value	Offer date
Transaction value	Transaction date
Tax	Mortgage liabilities

Outline:

Area	
Front/depth	
Distance from center	
Azimuth from center	N NE E ES S SW W WN
Kind of crop	B R L P S Lz Lz Tr
Soil class	I II III IV V VI

Perpetual lease	Use	Easment	Lease	Lending for use
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Geotechnical conditions		Topography	
Very good	1	Flat	1
Good	2	Slightly sloped, easy to build	2
Moderate	3	Slope, difficult to build	3
Poor	4	Impossible to build	4

View from the lot		Exposed to	
Nice	1	South	1
Average	2	East	2
Awkward	3	West	3
		North	4

Small architecture		Access		Fencing	
Good	1	Good	1	Permanent	1
Average	2	Moderate	2	Non-permanent	2
Poor	3	Poor	3	No fencing	3

Current use		Planned land use		Restriction of use	
Single family	1	Low density housing	1	Protection zone	1
2-4 family	2	High density housing	2	Protected landscape	2
Multifamily	3	Industrial building	3	Nature reserve	3
Commercial	4	Vacation houses	4	Nature protection zone	4
Industrial	5	Commercial	5	Other	5
Other	6	Farm buildings	6	No restrictions	6
Free from any use	7	Farms	7		
		Other	8		

Electricity	Employment opportunities
Water supply	Access to supplies
Sewer	Access to public transport
Gas supply	Access to schools
District heating network	Access to recreations facilities
Telephone network	Access to public
Other infrastructure (1)	Access to healthcare facilities
Other infrastructure (2)	Police protections
1. On lot 2. Reachable 3. Lacking	1. Good 2. Moderate 3. Low 4. Poor

Ecological hazards	Subsidence from mining	Threat of natural disasters
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Location	1. Commercial center 2. Town center 3. Transitional 4. Peripheral 5. Suburban 6. Rural
Density	1. Scattered 2. Loose 3. Compact
Demand	1. Increasing 2. Stable 3. Declining
Supply	1. Increasing 2. Stable 3. Declining

Identificator No			
Locality	District/Quarter	Section	
Lot No.	Building No.	Perpet. book No.	
Coord. of center	X =	Y =	
Address			
Owner			
Administrator			

Appraised value	Appraisal date
Offer value	Offer date
Transaction value	Transaction date
Tax	Mortgage liabilities

Year construction	Year of last overhaul
Number of floor	Capacity
Footprint area	Total floor area
Living area	Living area
Front / Back	Historic building
Scope of last overhaul	Yes No

Kind of building	Technology	General assesment of techn. cond.
Detached singlefamily	Traditional	Good
Semidetach	Big slab	Satisf.
Row house	Wood	Average
Multifamily	Steel	Poor
House of many appart.	Other	
Commercial		
Industrial		
Special purpose		

Basement	No	Partia	Full
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Construction	Stan
- Foundation	1. Good (0-15% well maint) 2. Satisf. (16-30% well maint) 3. Average (31-50% well maint) 4. Poor (51-70% well maint)
- Basement	
- Supp. walls	
- Ceilings	
- Stairs	
- Roof	
- Roofcover	
- Outside plastery	
- Inside plaster	
- Windows/doors	

Standard of interior	High	Moderate	Low
----------------------	------	----------	-----

Installation	
- Sewers	1. Present 2. Easy to connect 3. Difficult to connect 4. No connection possible
- Water supply	
- Gas	
- District heating network	
- Local heating network	
- Hot water	
- Electricity 220V	
- Electricity 360V	
- Telephone	
- Cable TV	
- Other	

No. of garage	No. of island roofs for cars
---------------	------------------------------

date and signature

 DATABASE USA3

PLOTS

C1 - VALUE OF PLOT ACCORDING TO APPRAISAL [z1]
 C2 - VALUE OF PLOT ACCORDING TO OFFERS [z1]
 C3 - VALUE OF PLOT ACCORDING TO TRANSACTION [z1]
 C4 - TAX
 C5 - DATE OF APPRAISAL [ddmmyy]
 C6 - DATE OF OFFER [ddmmyy]
 C7 - DATE OF TRANSACTION [ddmmyy]

C9 - AREA [sq. m.]
 C10 - FRONTAGE
 C11 - WIDTH/LENGTH RATIO
 C12 - DISTANCE FROM THE CENTRE [km]
 C13 - AZIMUTH FROM THE CENTRE [km]
 N Data C14 - FORM OF OWNERSHIP [glossary 1] 2
 C15 - GEOTECHNICAL CONDITIONS [glossary 3] 4
 C16 - TYPE OF DEVELOPMENT [glossary 4] 4
 C17 - VIEW FROM THE PLOT [glossary 5] 3
 C18 - FRONTAGE (DIRECTION OF SLOPE) [glossary 6] 4
 C19 - COMMUNITY AMENITIES [glossary 7] 3
 C20 - ACCESS TO PLOT [glossary 8] 3
 C21 - FENCE [glossary 9] 2
 C22 - PRESENT USE [glossary 10] 7
 C23 - FUTURE USE IN LAND DEVELOPMENT PLAN [glossary 11] 6
 C24 - RESTRICTIONS TO USE [glossary 12] 6
 C25 - ELECTRICITY LINE [glossary 13] 3
 C26 - WATER SUPPLY [glossary 13] 3
 C27 - SEWAGE SYSTEM [glossary 13] 3
 C28 - GAS SUPPLY [glossary 13] 3
 C29 - CENTRAL HEATING [glossary 13] 3
 C30 - TELEPHONE LINE [glossary 13] 3
 C31 - ADDITIONAL (OTHER) INFRASTRUCTURE 1 [glossary 13] 3
 C32 - ADDITIONAL (OTHER) INFRASTRUCTURE 2 [glossary 13] 3
 C33 - EMPLOYMENT OPPORTUNITIES [glossary 14] 4
 C34 - ACCESS TO SHOPS [glossary 14] 4
 C35 - ACCESS TO PUBLIC TRANSPORT [glossary 14] 4
 C36 - ACCESS TO SCHOOLS [glossary 14] 4
 C37 - ACCESS TO RECREATIONAL AREAS [glossary 14] 4
 C38 - ACCESS TO PUBLIC UTILITIES [glossary 14] 4
 C39 - ACCESS TO HEALTH SERVICES [glossary 14] 4
 C40 - POLICE PROTECTION [glossary 14] 4
 C41 - ENVIRONMENTAL HAZARDS [glossary 15] 2
 C42 - MINING DAMAGE [glossary 15] 2
 C43 - NATURAL THREATS (NATURAL DISASTERS) [glossary 15] 2
 C44 - LOCATION [glossary 16] 6
 C45 - DENSITY OF BUILDINGS [glossary 17] 3
 C46 - DEMAND [glossary 18] 3
 C47 - SUPPLY [glossary 18] 3
 C48 - COORDINATE X
 C49 - COORDINATE Y

DICTIONARY 10: 1. SINGLE-FAMILY HOUSES
2. 2-4-FAMILY HOUSES
3. MULTIFAMILY HOUSES
4. TRADE, SERVICES
5. INDUSTRY
6. OTHERS
7. FREE SPACE

DICTIONARY 11: 1. SINGLE-FAMILY HOUSES
2. MULTIFAMILY HOUSES
3. INDUSTRIAL FACILITIES
4. HOLIDAY RESORT FACILITIES
5. TRADE, SERVICES
6. CONSTRUCTION AND AGRICULTURE
7. AGRICULTURE
8. OTHERS

DICTIONARY 12: 1. PROTECTIVE ZONE
2. LANDSCAPE PROTECTION ZONE
3. NATURAL RESERVE
4. NATURE CONSERVATION ZONE
5. OTHERS
6. NO RESTRICTIONS

DICTIONARY 13: 1. ON THE PLOT
2. ACCESSIBLE
3. NO ACCESS

DICTIONARY 14: 1. GOOD
2. AVERAGE
3. UNDER AVERAGE
4. POOR

DICTIONARY 15: 1. YES
2. NO

DICTIONARY 16: 1. URBAN CENTRAL
2. CITY CENTRE
3. URBAN INTERMEDIATE
4. URBAN PERIPHERAL
5. SUBURBAN
6. VILLAGE

DICTIONARY 17: 1. SCATTERED
2. SPARSE
3. DENSE

DICTIONARY 18: 1. INCREASE
2. STABILITY

1469

DATABASE USA5

PLOTS

C1 - APPRAISED VALUE [z1]
C2 - OFFERT VALUE [z1]
C3 - TRANSACTION VALUE [z1]
C4 - RATE [glossary 1]
C5 - APPRAISED PRICE m2 L.A. [z1]
C6 - OFFERT PRICE n2 L.A. [z1]
C7 - TRANSACTION PRICE m2 L.A. [z1]
C8 - YEAR OF CONSTRUCTION
C9 - NUMBER OF FLOORS
C10 - LIVING AREA [m2]
C11 - TYPE OF BUILDING [glossary 2]
C12 - FRONT/BACKROM [glossary 3]
C13 - YEAR OF LAST OVERHAULT
C14 - FLOOR OF THE APPARTAMENT
C15 - APPARTAMENT LIVING AREA
C16 - LEGAL STATUS [glossary 4]
C17 - HISTORIC BUILDING [glossary 5]
C18 - CONSTRUCTION [glossary 6]
C19 - LAYOUT [glossary 7]
C20 - KITCHEN [glossary 8]
C21 - NO. OF ROOMS
C22 - BATHROOM [glossary 9]
C23 - WC [glossary 10]
C24 - BATHROOM USE [glossary 11]
C25 - WC USE [glossary 11]
C26 - BALCONY
C27 - LOGGIA
C28 - TERRACE
C29 - GARAGE
C30 - GARBAGE SHUTE
C31 - ELEVATOR
C32 - SEWERS [glossary 12]
C33 - WATER SUPPLY [glossary 12]
C34 - GAS [glossary 12]
C35 - DISTRICT HEATING [glossary 12]
C36 - HOT WATER [glossary 12]
C37 - ELECTRICITY 220V [glossary 12]
C38 - ELECTRICITY 360C [glossary 12]
C39 - TELEPHONE [glossary 12]
C40 - CABLE TV [glossary 12]
C41 - OTHER INSTALLATIONS [glossary 12]
C42 - FLOOR [glossary 13]
C43 - FLOOR TIELS [glossary 14]
C44 - WINDOWS/DOORS [glossary 15]
C45 - GENERAL TECHNICAL ASSESMENT CONDITION [glossary 16]
C46 - COORDINATE X
C47 - COORDINATE Y

DICTIONARIES

DICTIONARY 1: 1. MARKET
2. PREFERENTIAL

DICTIONARY 2: 1. SINGLEFAMILY
2. MULTIFAMILY

DICTIONARY 3: 1. FRONT
2. BACK

DICTIONARY 4: 1. SEPARATE
2. COOPERATION

DICTIONARY 5: 1. YES
2. NO

DICTIONARY 6: 1. TRADITIONAL
2. BIG-SLAB TECHNOLOGY
3. WOOD
4. STEEL
5. OTHER

DICTIONARY 7: 1. GOOD
2. PARTIALLY GOOD
3. WALKING-THROUGH ROOMS

DICTIONARY 8: 1. FULL
2. ANEX
3. ABSENCE

DICTIONARY 9: 1. SEPARATE
2. WITH WC
3. NO BATHROOM

DICTIONARY 10: 1. SEPARATE
2. WITH BATHROOM
3. NO WC

151

DICTIONARY 11: 1. INDIVIDUAL (SEPARATE)
2. JOIN

DICTIONARY 12: 1. PRESENT
2. EASY TO CONNECT
3. DIFFICULT TO CONNECT
4. NO CONNECTION POSSIBLE

DICTIONARY 13: 1. WOOD PLANKS
2. WOOD PARQUET
3. PCV
4. OTHER

DICTIONARY 14: 1. CERAMIC TIELS
2. TERAZZO
3. OTHER

DICTIONARY 15: 1. INDIV. DESIGN.
2. TYPICAL DESIGN.

DICTIONARY 16: 1. GOOD
2. SATISFACTORY
3. AVERAGE
4. POOR

Appendix 6

Exceptional Properties

Introduction

A significant number of properties are extremely difficult to value on a mass basis either because they are extremely unusual properties or because they are of such a special purpose that the small sample size rendered their valuation impossible on a mass valuation basis. In this instance, there is no choice but to value each such property using individual property valuation techniques. One example might be a steel mill or other factory. Another might be utility lines and the property beneath them. Major commercial properties might be another example.

Individual Property Valuation Techniques

This manual cannot cover all of the techniques used in valuing individual properties but some of the highlights and general theories can be discussed in order to place the tax appraisal valuation problems in context. Particularly in the initial years of a value based property tax system, it will be necessary to value a significant number of properties on an individual basis.

There are three traditional techniques that can be used when valuing individual properties. The first and most straightforward is to value the property on the basis of comparable sales in the market place. The second analyses the income stream and draws a conclusion as to value based upon that income analysis. Finally, properties which lack virtually any market at all, are relatively new, and do not have an income stream which can be projected and analyze may be valued using an estimate of the replacement cost less accrued economic depreciation.

These approaches to value will not be reviewed in detail but some brief description of the basic methods is warranted in order to gain some appreciation for the tasks to be performed and the need for a strong data base development and maintenance system within each assessing office.

Market Approach

While there may not be sufficient transactions to estimate the value of properties on a mass basis, there may be enough transactions or other indications such as listings so that individual property comparisons are possible. While three or four comparable transactions may be sufficient for individual property analysis, this number would not suffice for a statistical analysis. Complete homogeneity is not essential but there must be enough similarity so that comparisons between known transactions and the properties to be appraised can be made.

While it is desirable to obtain comparable properties from which comparisons can be made from the same neighborhood, it might not be possible to obtain them from within the some political jurisdiction. Necessity might even dictate that comparable even be sought outside the country. In recent years it has become apparent that we live in a global economy so some of the factors affecting value in one country are the same factors that affect values in another. Even the profile of the buyers may be the same. For example, a significant number of properties in Krakow, Poland are being purchased by Italians. These buyers are accustomed to buying with a commonality of investment and purchase criteria. For example, if Italians are in the market place and they tend to pay on the basis of payback period of three to five years, they will tend to use the same criteria wherever they perceive the same level of risk. It would then be appropriate to research any market where this investment criteria holds even if it is outside the city or even the country.

At any rate, the process is to find properties which have some degree of similarity. The similarities fall into three primary categories: Transactions which took place at a

time close to the date of value of the property; transactions within a reasonable proximity to the property being appraised or at least a property within another neighborhood which has similar value influence (such as similar types of buyers); and properties which have physical characteristics similar to those of the property being appraised.

The next step in the process is to take the comparable properties and adjust their transactional prices to the subject property. That is, if the subject property is in a better neighborhood than the "comparable" property, the transactional price of the comparable would be adjusted upward. The adjusted value would then be the value of the comparable if it were in the same neighborhood as the subject property. Suppose the subject property were physically inferior to the comparable because it was smaller or in worse condition. A downward adjustment would be made to the comparable due to physical feature superiority. Finally, suppose the comparable property sold at approximately the same date as the subject property so there is no adjustment for the difference in time. In summary, you have an upward adjustment for neighborhood, a downward adjustment for physical features, and no adjustment for difference in time. The result is an indication of value for the subject property. If the process is repeated for each of the comparables selected and if the adjustments were correct, there would be several indications of value of the subject property but all would fall within a very narrow range provided that there was nothing unusual about the sale of the comparable. From the conclusions of value in each indication an overall value indication would be derived from the property being appraised.

Income Approach

The income approach is based upon the observation that there is a relationship between the net income to be derived from the real estate and the value of that real estate. The basic formula that expresses this relationship is: $V=I/R$. V is the value of the property; I is the net income to be derived from the property; and R is the capitalization rate which results in the income being equivalent to the value. For

example, if similar properties in the area were being sold on the basis of a four year pay back period this would mean that the net income after all expenses would result in the full price of the property being recovered in four years. The capitalization rate would be the reciprocal of the payback period - 1/4 or 25%. If the net income were 1,000,000 zł. per month, the net annual income would be 12,000,000 zł. The value of the property would be $12,000,000/25\%=48,000,000$ zł.

In applying the income approach, care should be taken in assuring that the income stream projected reflects income attributable to the real estate only. If a business occupies the building, the appraiser must be certain that the income to be capitalized is only that income due to the real estate and that it is not business income or a return on the cost of the machinery and other equipment. Capitalizing the total income due to the business might reflect the value of the total enterprise only a part of which is the real estate. Since the value based real estate tax is supposed to be a tax on the land and buildings only and not the entire business enterprise, the importance of this separation cannot be overemphasized.

The best source of this income is comparable properties which have rented space recently rather than the rent on the subject property itself. The rent on the subject property might reflect an old lease or other factors which are not customary in the market place. On the other hand, after a gathering of comparable rents it might be found that the subject property lease is within the range indicated by the comparable so it can be the best indication of the value of the property.

If rent and sales information is gathered on a number of properties, the rate in the formula can be derived using the following transformation of the formula given above- $R=I/V$. The income information is gathered from the market place and the sales price is set by the market itself so the capitalization rate is actually a rate derived from the market place. The result is not some theoretical derivation of value using the market but actually a form of the market approach.

Cost Approach

The cost approach simply stated is the addition of the value of the land plus the replacement or reproduction cost of the improvements less any depreciation on the improvements. The first step is to value the land. While there are several methods for doing so, the most common and the most theoretically acceptable is by comparison with other land parcels that have sold. The techniques are identical to the methodology described in the market approach above except that different adjustments factors are important in setting the value of the property. For example, similarity in city approval (zoning) is now a very important factor in land valuation. Because it is extremely difficult to derive adjustments for difference in zoning, it is usually necessary to develop comparable with the same zoning.

In many cases there have been few sales of land parcels or it is even possible that the entire neighborhood is improved with buildings. It is not the function of this section of the manual to repeat all of the techniques that can be used but one of the possible techniques is to utilize statistical techniques and computer feedback models to separate value between land and improvements when there are no land sales but there is an adequate supply of improved property transactions.

The next step is to estimate the replacement or reproduction cost new of the improvements. Architects and builders can be consulted to estimate the reproduction costs. In many cases, it will not be possible to estimate the reproduction costs because identical building materials may not be available and the craftsmen needed to build the improvements may no longer exist. An example would be a cathedral or possibly a castle built in the middle ages. In this case, it might be possible to estimate the cost to replace identical utility. That is, it might be possible to estimate the cost to build a building which has the same function and size as the property being appraised. This cost estimate replaces utility so the estimation process is called replacement cost estimation.

From this replacement or reproduction cost estimate must be deducted a factor for depreciation. One method for doing this would be to analyze comparable sales where the sales price, value of the land and the replacement or reproduction costs are known. Deducting the land value and the replacement costs from the sales price provides an estimate of the depreciation. If the economic age of the improvements is known the depreciation per year can be estimated or at least the total depreciation for a given improvement age can be estimated. If a large number of these sales can be analyzed, a set of tables can be derived which provide a depreciation estimate for a given type of property of a particular economic age. In California, for example, the State Board of Equalization gathers this type of information from assessing offices throughout the state and derives depreciation tables which are used throughout the state. In a state of 31.5 million people results in tables having a high degree of accuracy but also a degree of uniformity in assessment practices throughout the state.

While there are other methods of estimating depreciation, only the method of deriving the figure from the market and from a market based set of tables is mentioned. For purposes of this manual, it should simply be kept in mind that the basic formula for the application of the cost approach is:

$$\text{Land Value} + \text{Replacement/Reproduction Cost} - \text{Depreciation} = \text{Value}$$

In addition, it should be kept in mind that if all factors of value referenced in the formula are derived from market transactions, what is really being utilized is simply another application of the market approach.

Individual Property Appraisers

It is highly unlikely that any governmental jurisdiction can financially afford to hire enough appraisers to reappraise every special purpose property each year. The solution found by many jurisdictions has been to hire fee appraisers to supplement a limited full time staff to complete these appraisals. Because these appraisals are

difficult and somewhat specialized, it is necessary to retain well trained appraisers to complete the work. Requirements can vary widely but if there is a licensing program which requires education and training in the valuation of special purpose properties utilizing sophisticated income analysis techniques, the problems can be solved. Retraining and continuing education should be an integral part of any licensing arrangement.

Reappraisals

Because of a shortage of manpower it will probably not be possible to reappraise each property every year. While the laws might state that the tax basis should be the value as of a given day each year it must be remembered that it is more important to maintain equalization than to be certain that each property is accurately appraised each year. It is common, therefore, to reappraise based upon some equitable rational schedule. In some jurisdictions it is common to divide the jurisdiction covered by the assessor's office into geographic areas and reassess all properties within that area in a year. If the jurisdiction is divided into five area, each area would be reassessed every five years.

Another method would be to reassess all properties of a given type each year. This method is probably more difficult to administer because there are more of some types than others. Managing the work flow becomes difficult.

In years when there are to be no new appraisals, properties within non-reassessed areas would not be reassessed. The result could be that when reassessment occurs increased assessments and resulting taxes could be massive if properties have gone up in value. To partially solve the problem, an inflation increase could be built into the computer tracking system. The result would be that the computer could automatically assign value changes even though the individual properties are not reassessed every year. Overall, the result would be that entire new valuations would not take place during the appraisal year but the assessment roll for the area would simply be adjusted to market

value. In the long run, the market would have determined the tax base, not an arbitrary computer adjustment.

Data Gathering and Maintenance

For the sake of efficiency and economy, government usually should rely on disclosure by the taxpayer in order to feed a large database of information. In many states in the United States there are full disclosure laws that require truthful disclosure of transactional information, and even property description information. In some cases physical information about the property is required. In many areas escrow officials, the equivalent of notaries in Poland, must disclose truthfully on threat of loss of license. Homebuyers and sellers can be fined for failure to disclose accurately. Because there may be the requirement for each of the parties might report conflicting information and cause an investigation. Even so, the information that is gathered is not always accurate. Enough accurate information is reported so that results of appraisals can have a great deal of validity.

It should be noted that the sales price of the property is not always enrolled for assessment purposes. Laws should be written to assure that the market value of the properties is the basis of value, not sales price. The result would be that some incentive to underreport the sales price would be missing.

Another source of data to be utilized by the assessor's office is building permit information. Particularly for larger and special purpose properties such as business and factories, when new construction is contemplated, a building permit is necessary from the local planning body. This building permit information should contain a description of the improvements to be built and it may even include an estimate of the construction cost.

Database Information

There are three types of information which should be included within the database itself. The first identification information. This information consists of that information needed to properly identify the property. It can be the legal description, the common street address, and any special catalogue classification or number assigned by the assessor. In the United State it is common for the assess's office to maintain assessment map books containing every separate parcel in the jurisdiction. Because maps of these parcels are maintained in books, it is common to assign numbers based upon the book number followed by a page number and finally a specific parcel number on the particular page. It might look something like this:

5401-25-03

The number would be read, book 5401, page 25, parcel 3.

The second type of data that would be maintained would be property descriptive information. This would include the land area, zoning, availability of utilities, building area, building type, date the building was built, etc. The type of information maintained would vary depending upon the type of property and the influence that that piece of information would have upon the value of the property.

The final type of information gathered and maintained would be financial data. This would include the date of the sale of the property, the price, loan information if any, and income information at the time of sale. If the property were recently built, the cost to construct the improvements might be obtained from the office granting the building permit.

Gathering and maintaining such information could then be used to derive market based factors used in the valuation process of the "limited market" properties. For example, an analysis of the data mentioned in the previous paragraph could lead to a highly

accurate estimate of the market rent of the current properties being appraised. Gathering the cost information can lead to development of cost table for future replacement and reproduction cost estimates. Using the sales prices and the land values as well as estimates of improvement costs can lead to the derivation of the depreciation tables referenced in the cost approach.

It should be kept in mind that a sophisticated database must be developed and maintained for not only mass valuation purposes but also for utilization in the valuation of the individual properties.

Summary

1. The individual valuation of the unusual properties is essential if a value based property tax system is to be truly equitable.
2. To do so effectively and at realistic cost it is necessary to develop a revaluation schedule that is both realistic and equitable.
3. Appraisers must be highly trained so that the accuracy of their estimates are as close to market value as possible. Basic training, formalized continuing education and assistance with data gathering through the utilization of the capacities of computers is extremely important.
4. While all properties cannot be reappraised, each year, it is highly desirable to utilize computers to track and catalogue each property and provide some annual updating.
5. Establishing, strengthening and enforcing full disclosure laws is extremely important to the effective gathering of the data needed to perform as well as the utilization of mass valuation techniques.

6. The database capabilities of computers are essential in the valuation of individual properties as well as the utilization of mass valuation techniques.
7. Computerization is also essential to provide the basis of analysis of income, cost and even market factors in the individual property analysis activity. Speed, accuracy, equity and cost effectiveness are the primary objectives.