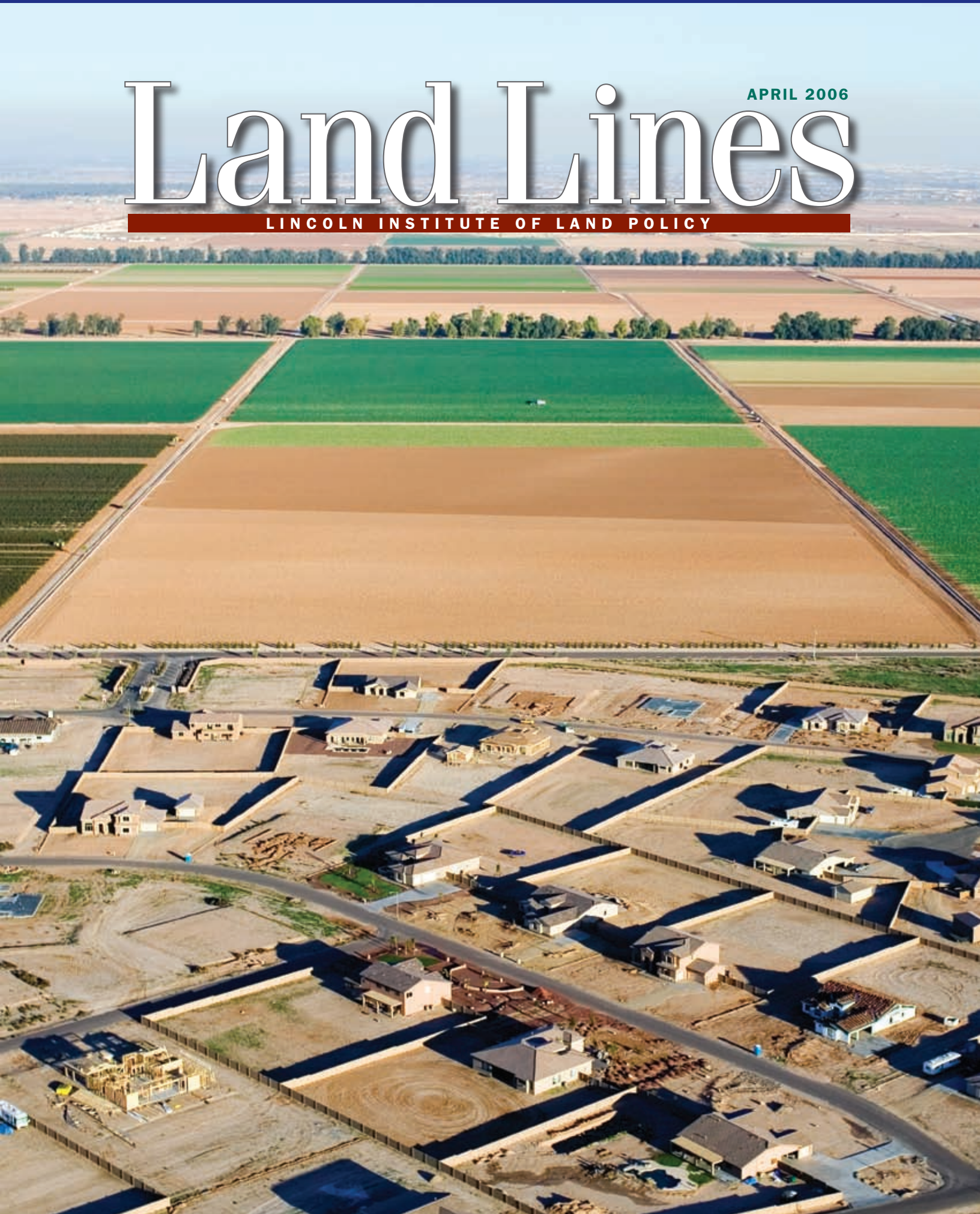
APRIL 2006

Land Lines

LINCOLN INSTITUTE OF LAND POLICY



Land Lines

APRIL 2006 • VOLUME 18, NUMBER 2

EDITOR
Ann LeRoyer

ASSISTANT EDITOR
Emily McKeigue

PRESIDENT & CEO
Gregory K. Ingram

DESIGN & PRODUCTION
David Gerratt & Amanda Wait
www.NonprofitDesign.com

CHAIRMAN OF THE BOARD
Kathryn J. Lincoln

The Lincoln Institute of Land Policy is a nonprofit educational institution established in 1974 to study and teach land policy and taxation. By supporting multidisciplinary educational, research, and publications programs, the Institute brings together diverse viewpoints to expand the body of useful knowledge in three departments—valuation and taxation, planning and development, and international studies. Our goal is to make that knowledge comprehensible and accessible to citizens, policy makers, and scholars in the United States and throughout the world. The Lincoln Institute is an equal opportunity institution in employment and admissions.

Land Lines is published quarterly in January, April, July, and October to report on Lincoln Institute-sponsored educational programs, publications, and special projects.

For More Information

The Lincoln Institute Web site *(www.lincolninst.edu)* provides a variety of features that make it easy for users to quickly obtain information on land and tax policy issues and on specific education programs, research, and publications. The e-commerce function permits users to order publications and multimedia products and to register for open enrollment courses.

You can create your own "My Profile" to download current and past issues of *Land Lines*, nearly 400 Working Papers, and other materials posted on the Web site. After you have completed your profile, you can "Log In" at any time by entering only your username and password. To create a profile, go to *http://www.lincolninst.edu/login/createprofile.asp.*

Lincoln Institute of Land Policy
113 Brattle Street
Cambridge, MA 02138-3400 USA

Tel: 617-661-3016 or 1-800-526-3873
Fax: 617-661-7235 or 1-800-526-3944

E-mail: *annleroyer@lincolninst.edu* (editorial content)
help@lincolninst.edu (information services)

Web: *www.lincolninst.edu*

LINCOLN INSTITUTE OF LAND POLICY

PRINTED ON RECYCLED PAPER USING SOY-BASED INKS

CONTENTS


PAGE 8


PAGE 14

FEATURES

DEPARTMENTS

New housing on desert agricultural land, Buckeye, Arizona.
Cover photo: © Alex MacLean/ Landslides Aerial Photography

Addressing Links Between Land Policy and Progress

The core competence of the Lincoln Institute of Land Policy is the analysis of issues related to land, and ours is one of the few organizations in the world with this focus. The Institute's current work program, both in the United States and in selected countries around the world, encompasses the taxation of land, the operation of land markets, the regulation of land and land use, the impacts of property rights, and the distribution of benefits from land development. This focus on land derives from the Institute's founding objective—to address the links between land policy and social and economic progress—as expressed by Henry George, the nineteenth-century political economist and social philosopher.

Gregory K. Ingram

The Institute plays a leading role in the analysis of land and property taxation, land valuation and appraisal, the design of land information and cadastral systems, and the reform and establishment of property tax systems. Work on the operation of land markets includes the analysis of transit-oriented development and research on urban housing and the expansion of urban areas. The regulation of land encompasses work on smart growth and growth management, visualizing density and the physical impact of development, mediating land use disputes, land conservation, and the management of state trust lands in the West. Analysis of property rights includes research on diverse topics including informal markets and land titling in developing countries, the establishment of conservation easements, and the preservation of farmland. Much work is underway on the distribution of benefits from land development, including value capture taxation, tax increment financing, university-led development, and community land trusts that seek to promote affordable housing.

While the Institute's work has emphasized urban land issues, it has also addressed problems beyond urban boundaries, such as conservation, state trust lands, and farmland preservation. A balance of activities across urban and rural topics will persist as the Institute's work program continues to focus on land issues of relevance to social and economic development. The Institute will not normally address topics that lack a strong link to land policy.

Communicating new findings through education programs, publications, and Web-based products is a core Institute activity. The overarching objective is to strengthen the capacity of public officials, professionals, and citizens to make better decisions by providing them with relevant information, ideas, methods, and analytic tools. The Institute offers traditional courses and seminars, and is moving aggressively to make many of its offerings available on the Web as either programmed instruction or as online courses with real-time interactions between students and instructors. The Institute also develops training materials and makes them available to others, for example through activities in several developing countries that involve the training of trainers in topics such as appraisal and tax administration.

Research strengthens the Institute's training programs and contributes to knowledge about land policy generally. The Institute supports both mature scholars who conduct groundbreaking research and advanced students who are working on their dissertations or thesis research. The Institute offers several fellowship programs and other opportunities for researchers to propose work on important topics that can contribute to current debates on land policy. The results of this research are regularly posted on the Institute Web site as working papers and are published in books, conference proceedings, and policy focus reports.

Demonstration and evaluation activities constitute the third major component of the Institute's agenda. Recently the Institute has begun to combine education, training, research, and dissemination in demonstration projects that apply knowledge, data collection, and analysis to the development and implementation of specific policies in the areas of property taxation, planning, and development. These projects are being expanded to include the analysis of policies as they are applied, and to assess and evaluate outcomes in terms of the intended objectives of the policies. The goal is to provide more rigorous evidence about how well and in what circumstances specific land and tax policies achieve their objectives so that information can be incorporated into future research and training programs.

Land Use Efficiency, Food Security, and Farmland Preservation in China

Chengri Ding

This new housing development in Shijiazhuang is the result of a public-private partnership based on the planned development of former farmland.

Erik Lichtenberg and Chengri Ding

The government of China has been concerned about its ability to continue feeding its growing population since the mid-1990s. It has targeted conversion of farmland to industrial and residential uses, especially in the most productive agricultural regions, as the chief threat to the nation's continued capacity to produce adequate levels of staple cereal crops. China is land poor. Only about one-third of its total land area, which is roughly equal to that of the United States, can be utilized productively for agriculture. Several measures have been introduced with the aim of protecting farmland with the greatest production potential. For example, current regulations require each province to keep 80 percent of its land currently designated as primary farmland under cultivation. Other policies require each province to take measures to ensure self-sufficiency in grain production and to draw up farmland protection plans.

Cultivated Land versus Farmland

Most attention has been focused on "cultivated" land, that is, land used to grow major food grains, feed grains, soybeans, and tubers. Not included is land used for horticultural crops and aquaculture, which would be categorized as farmland in most countries. Roughly 20 to 25 percent of the observed reduction in cultivated land in China in recent years was due to its conversion to orchards and fish ponds (Smil 1999; Ministry of Land and Resources 2003).

Reallocation of cultivated land from cereals and tubers to fruits, vegetables, and fish is a natural accommodation to changing consumer demand and increased income rather than a sign of an inability to maintain staple food production. Urban Chinese households consume much less grain than rural households (Gale 2002). Thus, changes in diets caused by rural-to-urban migration have resulted in less consumption of grains in China between 1995 and 2002, even though total population increased by about one-eighth during that period.

Farmland and Food Security

Even after correcting for reallocations of cultivated land to other food products, China has lost a significant amount of cropland, although the exact amount is difficult to determine because of the poor quality of historical statistics. Estimates of gross cropland losses between 1987 and 1995 have ranged from 3 to 5 million hectares out of a total estimate of 125 to 145 million hectares. Some of that loss consisted of land that was marginal in terms of agricultural productivity, but was highly vulnerable to erosion, desertification, and other forms of land degradation; much of this land was subsequently allowed to revert to more sustainable uses, such as pasture, grassland, and forest. Because the productivity of this land was quite low, its removal from cultivation represents little reduction in agricultural production capacity.

Most observers believe that China can remain largely self-sufficient in food production because of its ability to increase the agricultural productivity of land. For example, China's agricultural research system has been quite successful in developing and promulgating new crop varieties and cultivation methods that have increased potential grain yields an average of 1.5 to 2.5 percent annually (Jin et al. 2002). A study conducted under the auspices of the International Food Policy Research Institute indicates that China's ability to remain self-sufficient in food production depends more on investment in irrigation, flood control, and agricultural research infrastructure than on farmland preservation (Huang, Rozelle, and Rosegrant 1999).

Water is likely to be more of a bottleneck than land. Many farming regions face shortages of water for irrigation, so farmers who rely on groundwater have been pumping at unsustainably high rates, causing water tables to fall rapidly. Even regions with abundant water resources have shortages because of poor maintenance and operation of irrigation systems. Improved flood control is also sorely needed to prevent natural disasters that affect cropland losses.

Impacts of Urbanization

Even if the loss of cultivated land does not threaten China's food security, there are substantial inefficiencies in land allocation generally, and in the conversion of farmland to urbanizing areas in particular. The most worrisome aspect is that farmland conversion has been concentrated in the most productive farming areas of the country, notably the coastal and central provinces that have both fertile soils and climates that allow multiple crops and harvests. Net losses of cropland in these provinces alone between 1985 and 1995 were on the order of 2 to 4 million hectares. Urbanization, industrialization, infrastructure, and other nonagricultural uses have been the primary cause of farmland loss in these rapidly industrializing provinces.

The two sites selected for a recent Lincoln Institute/Ministry of Land and Resources farmland protection study illustrate the scope of this problem. Most of the land around Pinghu City, located halfway between Hangzhou and Shanghai in Zhejiang Province, is prime agricultural land that can be harvested two or three times a year. Cultivated land and orchards account for about two-thirds of the total land area, and little land is left unused. Land taken for construction increased eightfold between 1998 and 2001. The

The sign indicates that this land outside Beijing is part of a farmland protection district established according to agricultural standards.

Chengri Ding

local government has used consolidation of plots to meet its "no net loss" requirements, but the scope for further gains from consolidation is quite limited. Recorded conversion of farmland to urban uses during this period of rapid growth amounted to almost 2 percent of Pinghu City's 1998 farmland.

Jingzhou City, located in the Yangtze River basin west of Wuhan in Hubei Province, shows the limited impact of urbanization outside of the rapidly growing coastal provinces. Cultivated land and orchards together account for about half of the total land area. Between 1997 and 2003, cultivated land in Jingzhou also decreased by almost 2 percent, but only a tenth of that loss was due to transportation infrastructure and other urban uses. Over half of the loss was due to an increase in areas covered by water caused by flooding and new aquaculture facilities. The remainder was largely due to abandonment of marginal land brought under cultivation prior to 1978, which was either allowed to revert to forest or was simply left unused.

Ensuring that farmland reforms take hold and preventing abandonment of productive farmland are likely to be increasingly important for maintaining agricultural productivity.

Institutional Impediments

The greatest impediments to China's ability to maintain adequate levels of food production are not physical but institutional. Inefficient uses of existing farmland arise from policies that affect income generation from farming, including the lack of tenure security, water shortages and poor irrigation management institutions, and the lack of adequate marketing infrastructure.

Tenure Security: Economists have long argued that secure tenure is essential for efficient land use, including appropriate levels of investment in maintaining and enhancing land productivity as well as allo-cating land to the most efficient uses and/or users. Rural and suburban land in China belongs to village collectives and is administered by the village committee or economic organization, subject to oversight by township, provincial, and in some cases state entities. Rural collectives have the authority to allocate land to alternative uses.

Farmland is leased to households under contractual arrangements in which the household pays a fee to the collective in return for a residual claim on the products of the land. The contract may contain other stipulations as well (for example, requirements that the land be farmed and maintained in good condition). The size of each household's allocation is based on the size and composition of the household, and may be altered as those factors change. Tenure insecurity has been documented as a deterrent to investing in agricultural improvements (Jacoby, Li, and Rozelle 2002; Deininger and Jin 2003).

Concerns over adverse effects of insecure tenure on long-term investment in land productivity have led the Chinese government to experiment with lengthening the duration of farmland contracts. In 1984 collectives were urged by the state to contract with member households for a period of 15 years, and in 1993 the state urged an extension of standard contracts to 30 years. Revisions to the Land Management Law in 1998 explicitly required that all farmland contracts be written and be effective for a term of 30 years with few or no adjustments allowed.

Farmers also have acquired some ability to alter land allocations by exchanges or subcontracting Exchanges of land among villagers to consolidate holdings were declared legal in 1986, and subcontracting of land to outsiders, subject to approval of two-thirds of the village membership, was declared legal in 1998. Fully implementing these enhanced tenure security and transferability measures remains difficult, however, because they run contrary to longstanding practices and principles of administration in China. For example, they limit the power of the village leadership, and may also result in less equitable land allocations by ruling out reallocations to accommodate demographic or other changes in circumstances.

Ensuring that farmland reforms take hold and preventing abandonment of productive farmland are likely to be increasingly important for maintaining agricultural productivity, especially in areas experiencing rapid urban growth. Urban employment opportunities for working-age men are widely available in fast-growing coastal areas, leaving the farm labor force to be composed primarily of women and the elderly. As many as 80 percent of the young men in the environs of Pinghu City (and 20 percent in Jingzhou) worked in industrial jobs in nearby cities. Lack of urban residency rights keeps farm-based families tied to the land, but since their main source of income is now nonagricultural, they

have little incentive to invest in maintaining and enhancing land productivity. Moreover, limitations on labor time and capacity may induce them to leave some land uncultivated.

Such flows of labor out of farming can be accommodated by consolidating plots into larger operational units to exploit economies of scale, thereby lowering land productivity investment costs and increasing farming income sufficiently to make such investments worthwhile. But secure, transferable use rights are essential to accomplish these goals. In Pinghu, for example, wages in urban employment are so much higher than income from farming that farmers have little incentive to invest in the maintenance and enhancement of land productivity by applying organic fertilizer or keeping irrigation and drainage systems in good repair.

Secure tenure rights can also serve as a check on the arbitrary exercise of authority by village leaders who have been known to expropriate land from farmers in order to lease it to rural enterprises or sell it to local governments, often without paying compensation and in many cases pocketing the returns themselves. Illegal land development of this kind has become a national scandal in China, and millions of farmers are known to have lost land as a result. According to the Ministry of Land and Resources (2003), farmers were owed at least $1.2 billion in compensation and relocation fees.

Water Management: The second type of institutional impediment to agriculture relates to water shortages, notably (1) lack of clearly delineated and enforced use-rights for water; (2) inadequate financing of water delivery infrastructure; and (3) failure to price water at its opportunity cost. The lack of clear use-right assignments results in upstream users taking too large a share of the water available, leaving inadequate supplies for downstream users—a phenomenon that applies at both the provincial level, where upstream provinces divert excessive quantities of stream flow, and the farm level, where farmers with land at the heads of delivery canals take excessive amounts, leaving little or nothing for those at the tails of those canals.

Funding for construction, maintenance, and operation of irrigation systems has been inadequate because these activities have no dedicated funding source, and maintenance varies with the overall status of government finances. According to local officials in Pinghu and Jingzhou, for instance, maintenance of irrigation and drainage systems virtually ceased around 1980. Recent attempts to remedy the neglect by investing in repair and upgrades of irrigation systems are hampered by lack of funds. In Jingzhou, for instance, officials estimate that at current funding levels it will take 50 years to repair all irrigation systems currently in need. Many systems that have been repaired recently are likely to require further maintenance before systems currently in need of repair have been upgraded.

Traditional farmers face many obstacles in maintaining or increasing agricultural productivity.

Additional inefficiencies in water use arise in China because water prices are set below opportunity costs, leading to overuse. Many farmers are charged for water according to the amount of land farmed rather than the amount of water used. Charges may be set to raise revenue for the township or provincial treasury rather than to induce economically efficient water use. Experiments with water pricing indicate that farmers' use of water conservation methods is quite price-responsive, so that water price reform has a significant potential to alleviate water shortages.

Marketing Institutions: Inadequate marketing infrastructure and institutions are the third major impediment to realizing potential gains from regional specialization as well as a deterrent to investment in agriculture in many localities. China has a long tradition of promoting self-sufficiency at the local and provincial levels, yet this self-reliance can become an impediment to economic growth by limiting the scope for gains from specialization. China has been moving away from this

traditional stance. Grain trading, for example, has been partially liberalized and grain traders are creating more integrated national markets.

Greater market liberalization could contribute to farmland preservation and the maintenance of food production capacity generally. More closely integrated national markets should increase average prices and decrease price volatility, making farming more attractive relative to other forms of employment. Greater market integration should be especially beneficial in poorer inland areas where incentives to migrate toward fast-growing coastal cities have been especially strong.

This market liberalization will require significant investment in infrastructure, however. China's transportation network has not expanded fast enough to keep pace with the growth of trade volume, and the country lacks sufficient warehouse and cold storage facilities. China has sufficient cold storage capacity to accommodate only 20 to 30 percent of demand, resulting in spoilage losses of perishable freight on the order of one-third (Gale 2002). Increases in such capacity could increase food availability substantially by reducing both spoilage losses and price volatility, giving farmers an incentive to increase their production of vegetables and other perishable products. Expanded provision of electricity could further increase the effective food supply by allowing consumers to reduce spoilage losses by refrigerating produce.

Urban Policies on Farmland Conversion

The current urban policy structure encourages municipal and regional governments to convert farmland, even in areas where the central government has made farmland preservation a top priority. Policies influencing government finance, residential construction, and urban land transactions combine to create a high demand for land. Policies governing payment for land also make farmland conversion the most attractive means of meeting that demand.

Urban land is allocated by a combination of administrative and market mechanisms that create substantial arbitrage opportunities for private enterprises and government entities. Private enter-

Many informal settlements such as this one in Guangzhou are built on farmland without infrastructure and appropriate planning before construction begins.

Chengri Ding

prises can lease land from municipal governments in return for payment of a conveyance fee. Local governments can acquire land by paying a compensation package set according to administrative formulas based on agricultural income, which is typically far lower than the conveyance fee. Revenue from land transactions is a major source of funding for local governments; according to some estimates, it can account for between a quarter and a half of all municipal revenue. As a result, local governments have strong incentives to expand into rural areas in order to finance their ongoing obligations in the areas of infrastructure and housing.

Current regulations also make it more attractive for local governments to provide housing for growing populations by expanding into rural areas rather than increasing density within existing urban boundaries. Redevelopment of existing municipal land requires governments to pay compensation to current tenants and to cover resettlement expenses. Compensation paid to current residents is much higher than that paid to rural inhabitants. In Beijing, for example, land costs (primarily compensation) make up as much as 60 percent of the redevelopment cost of existing urban areas compared to 30 to 40 percent of the cost of developing converted rural land. Tenants may also resist displacement tenaciously, which at the very least creates significant delays. In addition, it is more expensive to provide infrastructure to areas already densely developed.

Industrial development is widely seen as the key to economic growth and a rising standard of living for municipalities. Low land costs have encouraged local governments to acquire and set aside land for industrial development speculatively, in the hope of attracting industrial investment. Much of that land has remained idle as hoped-for investment failed to materialize. By 1996, there were roughly 116,000 hectares of idle, undeveloped land in economic development zones, over half of which was converted farmland that could no longer be converted back.

Low administratively set compensation levels for rural land also create incentives for illegal land transactions that allow rural collectives, rather than urban governments, to profit from conversion, thereby undermining the state's control over land use. These low compensation levels also create incentives for other types of illegal land transactions, notably forcible takeovers by local officials of land whose owners are unwilling to sell.

Conclusion

The central government's attempts to limit farmland conversion by administrative measures are likely to continue to be ineffectual as long as local governments and rural collectives continue to have such strong incentives to convert farmland. Institutional reform is thus critical for improving farmland preservation efforts and increasing land use efficiency in general. Reform efforts are also hampered by fragmentation of authority. The Ministry of Land and Resources has jurisdiction over land but not residential construction, industrial development, or local government finance; the latter are overseen by various ministries, each of which has its own distinct set of interests and concerns. Reform requires a cooperative effort that takes these diverse interests into account.

ABOUT THE AUTHORS

ERIK LICHTENBERG *is a professor in the Department of Agricultural and Resource Economics at the University of Maryland, College Park. Contact: elichtenberg@arec.umd.edu.*

CHENGRI DING *is an associate professor of Urban Studies and Planning at the University of Maryland, College Park, and is director of the Chinese Land Policy and Urban Management Program cosponsored by the University of Maryland and Lincoln Institute of Land Policy. Contact: cding@umd.edu.*

This article summarizes their 2004 Lincoln Institute working paper, Farmland Preservation in China: Status and Issues for Further Research, which is available at http://www.lincolninst.edu/pubs/workingpapers.asp.

REFERENCES

Deininger, K., and S. Jin. 2003. The impact of property rights on households' investment, risk coping, and policy preferences: Evidence from China. *Economic Development and Cultural Change*, 851–882.

Gale, F., ed. 2002. *China's food and agriculture: Issues for the 21st century*. Agriculture Information Bulletin No. 775, Economic Research Service, US Department of Agriculture, Washington, DC (April).

Ho, S.P.S., and G.C.S. Lin. 2004. Converting land to nonagricultural use in China's coastal province. *Modern China* 30: 81–112.

Huang, J., S. Rozelle, and M.W. Rosegrant. 1999. China's food economy to the twenty-first century: Supply, demand, and trade. *Economic Development and Cultural Change*, 737–766.

Jacoby, H. G., G. Li, and S. Rozelle. 2002. Hazards of expropriation: Tenure insecurity and investment in rural China. *American Economic Review* 92: 1420–1447.

Jin, S., J. Huang, R. Hu, and S. Rozelle. 2002. The creation and spread of technology and total factor productivity in China's agriculture. *American Journal of Agricultural Economics* 84: 916–930.

Ministry of Land and Resources. 2003. Communique on Land and Resources of China, 2002. Beijing.

Smil, V. 1999. China's agricultural land. *The China Quarterly*, 414–429.

Large-scale Urban Interventions:

Eduardo Knapp

Modern commercial buildings tower over the remnants of Favela Coliseu near Faria Lima Avenue.

Ciro Biderman, Paulo Sandroni, and Martim O. Smolka

Large-scale urban redevelopment projects (termed *grandes projectos urbanos* or GPUs in Spanish) raise many questions about the impacts of subsequent urban development induced by the intervention. GPUs are characterized by an impact in a significant part of the city, often with the use of some new fiscal or regulatory instruments and the involvement of a large network of agents and institutions. These projects are expected to affect land prices, recycle existing or create new infrastructure and facilities, and attract other new buildings.

GPUs as an urban policy instrument have been the object of considerable controversy and debate throughout Latin America. It is often argued that they promote social exclusion and gentrification, have limited effects in stimulating real estate activities, and require large (sometimes hidden) public subsidies that often draw fiscal resources from other urban needs. In spite of their increasing popularity in Latin America, there is little empirical evidence to support these criticisms.

This article presents the case of a GPU introduced in São Paulo, Brazil, in 1996 as an "urban operation" to redevelop a middle-income area of mostly single-family homes that was to be traversed by the extension of the Faria Lima Avenue. The project is known as the Faria Lima Urban Operation Consortium (OUCFL). We examine economic principles that affect the fiscal performance of the project and its opportunity for value capture, evaluate changes in residential density, and analyze changes in income distribution and ownership

The Case of Faria Lima in São Paulo

Thomaz M. T. Ramalho

High-rise luxury apartments and condominiums are rapidly replacing the old neighborhoods of single-family houses on side streets in the Faria Lima area.

structure. Finally, we offer some policy suggestions on how and when to use this kind of instrument based on these assessments.

What is an Urban Operation?

An urban operation is a legal instrument that seeks to provide local governments with the power to undertake interventions related to urbanistic and city planning improvements in association with the private sector. It identifies a particular area within the city that has the potential to attract private real estate investments to benefit the city as a whole. The proper city planning indexes (i.e., zoning and other regulations on construction coefficients, rates of occupation, and land uses) are redefined in accordance with a master plan, and investments are made in new or recycled infrastructure.

An urban operation allows the municipality to capture (through negotiated or mandatory means) the land value increments associated with the subsequent land use changes. In contrast to other value capture instruments, these funds are earmarked or internalized within the perimeter of the project to be shared between government and the private sector for both investments in urban infrastructure and subsidies to private real estate investments to support the project itself.

Each urban operation in Brazil is proposed by the executive and approved by the legislative branch of the jurisdiction. In the case of São Paulo, this authority was created in the Lei Organica Municipal (Constitution of the City) in 1990, which was later inserted in the new Brazilian urban development law (Statute of the City of 2001). The first proposed projects were the Operation Anhangabaú (subsequently expanded as a part of the Downtown

Operation and renamed Center Operation) and Água Branca, followed by the Água Espraiada and Faria Lima operations. After the approval of the city's new Master Plan in 2001, nine other urban operations were generated. These thirteen projects are expected to affect 30 to 40 percent of the buildable area of the City of São Paulo.

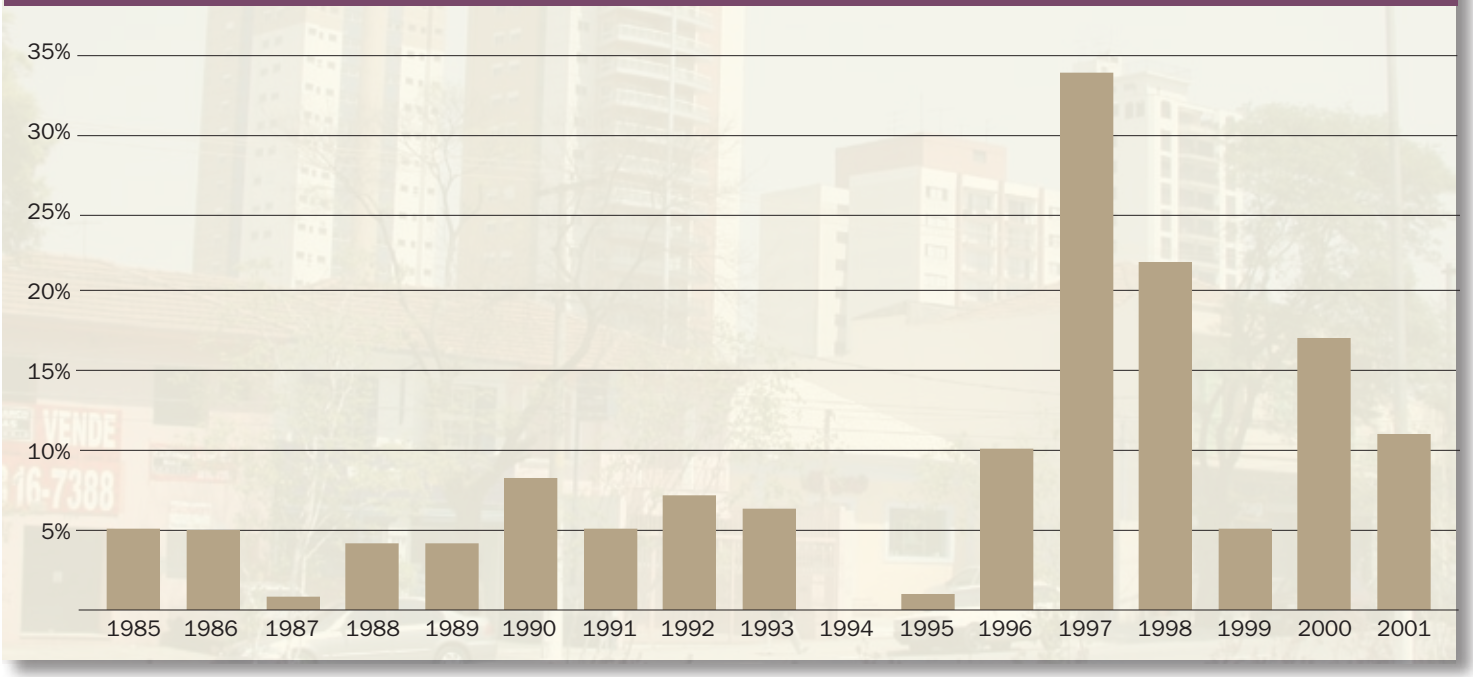
Financing Faria Lima

The Faria Lima urban operation (OUCFL) was proposed and approved in 1995 with the aim of obtaining private resources to fund the public investments necessary to purchase land and install infrastructure in order to extend Faria Lima Avenue. These costs were deemed at the time to be approximately US$150 million, two-thirds for land acquisitions and one-third for the avenue itself. The project was heavily contested by many stakeholders on grounds ranging from the source of the funds (i.e., advanced out of the local budget through new debt) to neighborhood concerns (one of which managed to keep the floor-area-ratios [FARs] unchanged and legally excluded from the OUCFL zoning) and technical design issues.

Technical studies carried out at the time indicated that it would be possible to take advantage of an additional potential 2,250,000 square meters beyond what was already permitted by the city's zoning legislation, and the FARs were changed accordingly. These additional building rights were granted against a payment of a minimum of 50 percent of their market value using the existing "Solo-Criado" (Selling of Building Rights) instrument. OUCFL aroused great interest on the part of real estate entrepreneurs. This instrument nevertheless was also questioned for its lack of transparency, its project by project approach, and the arbitrariness in the way relevant prices were established and then used to calculate the value of the additional building rights.

By August 2003 a total of 939,592 square meters, or nearly 42 percent of the available total of these 2,250,000 square meters, had already been licensed. More than 115 real estate projects were approved, including nearly 40 percent commercial buildings and 60 percent high-quality residential buildings. Nevertheless, the resources (approximately US$280 million) obtained from these approved projects had not fully compensated for the expenditures (US$350 million, including principal plus interest) associated with the expansion of the avenue, considering the high interest rates prevailing in Brazil for the nearly eight years since the realization of expenditures. Thus, about 80 percent of the cost (albeit more than anticipated) has been recovered through the Selling of Building

FIGURE 1
Percentage of Luxury Apartments Approved and Launched in Faria Lima Per Year, Compared to the Metropolitan Region of São Paulo (RMSP)



Note: The Faria Lima urban operation was launched in 1996.

Rights process. Since July 2004 the compensation for these advance funds was obtained through an ingenious new value capture mechanism known as CEPAC, an acronym for a Certificate of Additional Potential of Construction. One CEPAC represents one square meter.

The Introduction of CEPACs

Although CEPACs were defined in Brazil's Statute of the City of 2001, they were not approved by the CVM (Brazilian equivalent to the U.S. Security and Exchange Commission) as freely tradable in the Brazilian Stock Exchange until December 2003. The regulation establishes that the price of each certificate is defined by public auction and that the corresponding square meters of building rights (which also include use changes and occupation rates) expressed in each certificate may be executed at any time. The regulation also states that new batches of certificates can be issued (and sold through auction) only upon confirmation that the resources captured by the previous sale have been effectively earmarked to the project. To ensure this designated use, the revenues are deposited in a special account, not in the municipal treasury. From the perspective of the private investors this designation ensures the acceptability of this value capture instrument at its own valorization. By issuing a lower number of certificates than potential building rights—that is by managing their scarcity—the public sector may benefit from the valorization and thus be able to capture value "ex-ante" (Afonso 2004, 39).

The final approval of CEPACs for OUCFL and all the necessary steps for launching them in the financial market occurred in mid-2004, and the first auction at the end of December 2004 generated nearly R$10 million (about US$4 million), corresponding to the sale of approximately 9,000 CEPACs out of an authorized stock of 650,000 square meters. The OUCFL certificates were sold at a face value of R$1,100 (about US$450) per square meter with no observed premium pricing as a result of the bidding process.

This situation contrasts with that of the Água Espraiada urban operation, which was expected to be fully funded by CEPACs from its start. In its third auction, the certificates were already capturing R$370 per certificate against a face value of R$300 set for this operation. A more recent auction in Água Espraiada sold 56,000 CEPACs and captured R$21 million ($US9.5 million), reflecting a certificate price of R$371. This pricing contrast reflects the different original face values in the two projects. In the case of OUCFL developers bought (and stocked) building rights in advance, to benefit from the more flexible rules prior to the CVM approvals. The certificate price in Faria Lima started at more than R$1,100 because it is a more valued area. In Água Espraiada developers were willing to pay more than the original face value because the certificates were less expensive and thus in greater demand.

Land Price Implications

The prices of vacant land and developed areas experienced a considerable increase in some blocks within the perimeter of OUCFL during the 1990s, but decreased in other blocks. Yet, the average square meter price of new real estate development fell throughout the Metropolitan Region of São Paulo (RMSP) in all price bands, when comparing the average price from 1991 to 1996 with those of 1996 to 2000.

After controlling for a number of attributes associated with the changing character of the developments and their location, the price estimations showed an unequivocal relative increase after the operation was launched. The average price per square meter within the OUCFL perimeter increased from R$1.68 thousand in the 1991–1996 period to R$1.92 thousand in the 1996–2001 period, a 14 percent increase, while prices in RMSP decreased from R$1.21 thousand to R$1.06 thousand, a 12 percent decrease in the same period (R$1.95/US$1.00 in December 2000). Thus, the price per square meter in OUCFL was higher than that of RMSP by around 26 percent. The price per square meter in OUCFL was 38 percent higher than the average price in the RMSP in 1991–1996, and it increased to 81 percent higher in 1996–2001.

Was this increase captured by the municipality as anticipated? Considering that the cost of construction in average is around R$1,000 per square meter, the 2004 auction (the only one so far) captured almost all of the value added at current prices. The previous pre-CEPAC system captured about 50 percent or more, depending on the capacity and success of municipal negotiators, and the correctness of the reference price. CEPAC now changes this percentage and the face value of the instrument may capture all the value increment or even more, depending on the relation of this face value to market prices, and on the results of future auctions. Comparing a redevelopment project

financed totally by construction bonds (like CEPACs) and one financed totally with general property taxes, there is no doubt that the former is less regressive than the latter. Even with a progressive property tax, with rates increasing according to values, part of the costs would be paid by poorer households.

Eduardo Knapp

One of Latin America's most expensive, high-fashion women's clothing stores and a new office building share this city block with a vacant lot and an informal settlement, reflecting the recent transformation of the Faria Lima area.

This evidence that about 80 percent of the total cost of the project has already been recovered, combined with the auctioning of the remaining building rights through CEPACs and the impact of the property appreciation on the current property tax revenues, indicates that the project should not only pay its own way but actually generate a fiscal surplus for the city as a whole over the next five or seven years.

In effect, the changes caused by substituting older single-family houses with new residential and commercial buildings resulted in a substantial change in property tax collection in the OUCFL area. Many lots and even entire blocks had been occupied by single- and two-story houses constructed since the 1950s. Many of these structures were eligible for a discount coefficient for obsolescence of up to 30 percent of the property tax. They were replaced with new, taller and higher-quality buildings for which the discount was null. Our estimates indicate that the differences in property tax collection by square meters constructed may have increased by at least 2.7 times and up to 4.4 times. That is, the average property tax per square meter increased to a minimum of R$588.50 up to R$802.50 from R$220.95 if the house was 25 years old, or from R$179.70 if the house was 30 years old.

Social Implications

The OUCFL case offers a unique opportunity to quantify changes in resident characteristics before and after the intervention, since data at the census track level is available for 1991 and 2000, and the intervention began in 1996. Our analysis of gentrification and displacement of poorer residents mainly confirms the findings of Ramalho and Meyer (2004) that the average income has increased relatively in most of the blocks inside the OUCFL perimeter. By Brazilian standards, the upper-middle class was displaced from the region by the richest 5 percent of households in the metropolitan area. The census data also showed that residential density fell between 1991 and 2000, from 27 to 22 residences per hectare, although these figures may be distorted because they reflect the ratio of total residences in the entire area, not an average of the ratios per plot where land use was converted.

The data from 1991 indicated that the population was already leaving the OUCFL area before the approval of the urban operation, but this exodus intensified after 1996, generating vacant plots in the process of site-assembly to accommodate the new high-rise developments. At the same time, building density increased. The average number of floors per new building in the area increased from 12.6 in the 1985–1995 period to 16.7 in the 1996–2001 period. The number of housing units per building increased from 37.1 to 79.6 over the same periods.

This apparent contradiction between decreased residential density and increased numbers of housing units is explained in part by the construction of commercial buildings that replaced many single-family residencies on small and average-sized lots. OUCFL induced considerable real estate concentration as the new commercial and residential buildings replaced the houses and required greater land areas for high-class architectural projects. The 115 projects approved between 1995 and August 2003 that requested increases in the utilization coefficients required a total of 657 lots, or an average of 5.7 lots per project.

The combination of the increase in income level and the reduction in household density indicates that the gentrification process advanced in

and around the OUCFL region during the 1990s. Nevertheless, this is not a classic case of gentrification, where poor families are driven out of an area due to various socioeconomic pressures. In this case mostly upper-middle classes were displaced. Except for the small nucleus of remaining *favelados* (Favela Coliseu), the region was already occupied by people belonging to the richest segments of society.

Some Policy Observations

This article contributes to the debate about the social management of land valuation by furnishing real data assessments and economic elements. These elements have been missing from most analysis, and we believe that this gap in the literature has contributed to an incomplete interpretation of the implications of an urban operation and to mistaken public policy recommendations.

Our conclusion is that the CEPAC funding mechanism itself does not increase the regressive characteristic of urban operations, since without those building rights bonds all the investment in redevelopment would be financed by general taxes. If the OUCFL project were inadequate in terms of income distribution, it would have been even worse without the value capture mechanism. Instead, CEPAC and the value capture mechanism used previously offered two desirable characteristics of any public investment: charging the new landowners is at least neutral in terms of income distribution; and the primary beneficiaries end up paying for the project.

Furthermore, the urban operation mechanism offers incentives for redevelopment. Given that most projects increase land prices and drive out the poor from the region, it would be better to invest the entire municipal budget in small-scale projects. This is the opposite of what happened with the redevelopment of the adjacent high-end Berrini area, where developers decided how to concentrate their investment, resulting in even more income concentration than in the OUCFL area. Because of inaction by policy makers in that case, the municipality did not capture any value from Berrini, yet paid the entire cost of infrastructure.

The use of building rights bonds may diminish the regressive aspect of land development, but to make a project truly progressive requires attention on the expense side, by funding all the investment through instruments like CEPACs. The main limitation on distributing benefits to the poor is that the law establishes that all funds collected through value capture (CEPACs or other instruments) must be invested within the perimeter of the intervention. One way to make these interventions more progressive is to invest in activities that will furnish spillovers to the poor, such as public transit, education, and health. Moreover the relevant legislation allows the administration to select an area inside the perimeter of an urban operation and declare it a zone of special social interest (ZEIS) where lots can be used only for low-income social housing.

Another alternative is to establish social housing areas within the perimeter of the urban operation. By subsidizing low-income housing with money from developers and new landowners, there would be no distortion in prices outside of the housing industry. The subsidy results from segmenting the market and transferring the extra rent to poor households. This is real social management of land valuation.

ABOUT THE AUTHORS

CIRO BIDERMAN *is affiliated with the Center for Studies of Politics and Economics of the Public Sector (Cepesp) at the Economic and Business School at the Getúlio Vargas Foundation in São Paulo, Brazil. He is a visiting fellow in international development and regional planning in the Department of Urban Studies and Planning at Massachusetts Institute of Technology, Cambridge. Contact: biderman@mit.edu*

PAULO SANDRONI *is an economist and professor at the Economic and Business School at the Getúlio Vargas Foundation. Contact: psandroni@fgvsp.br*

MARTIM O. SMOLKA *is senior fellow and director of the Lincoln Institute's Program on Latin America and the Caribbean. Contact: msmolka@lincolninst.edu*

REFERENCES

(These publications are available only in Portuguese.)

Afonso, Luis Carlos Fernandes. 2004. Financiamento eh desafio para governantes (Financing is a challenge to government). *Teoria ane Debate* No. 58, Maio-Junho: 36–39.

Ramalho, T., e R.M.P. Meyer. 2004. O impacto da Operação Urbana Faria Lima no uso residencial: Dinâmicas de transformação (The impact of the Faria Lima Urban Operation on residential use: Transformation dynamics). Mimeo. São Paulo: Lume/FAUUSP.

Biderman, Ciro, e Paulo Sandroni. 2005. Avaliação do impacto das grandes intervenções urbanas nos precos dos imoveis do entorno: O caso da Operação Urbana Consorciada Faria Lima (Evaluation of property price impacts near large scale urban interventions: The case of Faria Lima Urban Operation Consortium). Lincoln Institute of Land Policy Research Report (April).

WHO PAYS THE PROPERTY TAX?

AND WHAT DOES CAPITALIZATION TELL US ABOUT WHO PAYS?

George R. Zodrow

A critical aspect of the property tax, but one that is rarely addressed in public debate, is its "economic incidence," or who actually bears the burden of the tax, as opposed to its statutory incidence, or who literally pays the tax. For example, a landlord might pay a property tax bill, but if some of the tax is offset with a rent increase, then the tenant bears that part of the tax burden. Not surprisingly, estimates of the economic incidence of taxes depend on the relative responsiveness of supply and demand to tax-induced price changes—factors that explain the extent to which consumers and businesses can change their behavior to avoid the tax.

The economic incidence of a tax is also affected by the phenomenon of "capitalization"—changes in asset prices that reflect the discounted present values of the economic effects of future tax and/or public expenditure changes. For example, an increase in property taxes, holding expenditures constant, might be capitalized into land or house values. The prices of these assets might fall by the present value of the projected increase in future taxes, whereas increases in expenditures, holding property taxes constant, might have offsetting effects.

These capitalization effects should include the effects of other tax-induced price changes, such as changes in future housing or land rents. In principle, the economic incidence of all of these capitalization effects is on the owners of land and housing at the time of the imposition of the tax, when the effects are "capitalized" as one-time changes in the prices of these assets. These price changes also significantly affect the ultimate economic burden of the tax on subsequent purchasers.

Benefit Tax versus Capital Tax Views

The complexity of measuring all of these effects implies that determining the economic incidence of taxes is one of the most difficult problems in public finance, and the property tax is no exception. Indeed, the debate over the incidence of the residential property tax has raged for at least the last thirty years, and is still far from resolved. Professional opinion on the incidence of the tax is generally divided between the "benefit tax" view and the "new" or "capital tax" view (Zodrow 2001).

Under the benefit tax view, the property tax is considered a user charge for public services received. It thus serves the function of a local head tax or benefit tax as envisioned by Tiebout (1956) in his celebrated analysis of how interjurisdictional competition coupled with consumer mobility can lead to the efficient provision of local public services. The implications for taxpayers are threefold. First, as a benefit tax the property tax is simply a payment for public services received, analogous to purchases of goods and services for private markets. Second, because the property tax functions as a market price, its use implies that local public services are provided efficiently. Third, the property tax, like all benefit taxes, results in no redistribution of income across households and thus has no impact on the distribution of income.

By comparison, under the capital tax view derived by Mieszkowski (1972) and elaborated by Zodrow and Mieszkowski (1986b), the property tax is a tax on the use of capital and thus inefficiently distorts resource allocation by driving capital investment out of high tax jurisdictions and into low tax jurisdictions. The capital tax view divides the incidence of the property tax into two components. The national average tax burden is in effect a "profits tax" borne by all capital owners, includ-

ing homeowners, businesses, and investors. The local or "excise tax" components of property tax rates that fall above or below the national average are borne locally through changes in land rents, wages, or housing prices.

The incidence effects of local taxes that are higher and lower than the national average tend to cancel one another in the aggregate. Therefore, the profits tax effect is the main factor determining the incidence and distributional effects of the property tax. From the perspective of any single taxing jurisdiction, however, the burden of local expenditures financed by the property tax tends to be borne primarily by local residents.

The capital tax view has different implications for taxpayers in all three of the areas noted above for the benefit tax view. First, the tax has some significant benefit aspects in that local tax increases tend to be borne by local residents. Second, the tax inefficiently distorts housing consumption decisions; moreover, use of the local property tax can also lead to inefficient underprovision of local public services if government officials, concerned about tax-induced loss of investment, then reduce the level of public services (Zodrow and Mieszkowski 1986a). Third, because the primary effect of nationwide use of the property tax is a reduction in after-tax returns to capital owners, it is a highly progressive tax. Nevertheless, from the perspective of a single taxing jurisdiction, the local tax is not borne by capital owners as a whole but rather by local residents and is a roughly proportional tax. (See Table 1 for a summary of these two views.)

Capitalization and the Incidence of the Property Tax

My recent research sponsored by the Lincoln Institute has focused on a single but critical aspect of this long-standing debate. Dating back to the seminal work of Oates (1969), empirical evidence of the *inter*jurisdictional capitalization of the discounted values of local property taxes and public services into house prices has been interpreted as offering support for the idea that property taxes can be viewed as payments for local public services received, consistent with the benefit tax view.

This notion was extended to the case of *intra*-jurisdictional capitalization in the pathbreaking

work of Hamilton (1976). In this model, which is characterized by perfectly mobile households with heterogeneous demands for housing and fixed housing supplies, intrajurisdictional fiscal capitalization converts the local property tax into a pure benefit tax, even though all houses are not identical. Specifically, high-value homes sell at a discount that reflects the capitalized present value of their "fiscal differential"—the present value of the excess of future taxes paid relative to public services received.

Similarly, low-value homes should sell at a premium that reflects the capitalized present value of the extent to which future taxes paid are less than the value of public services received. As a result, all households "pay for what they get" in public services, and the property tax is an efficient benefit tax. Capitalization thus implies that it is futile to follow the conventional strategy of buying a low-value home in a high-value community in order to receive local services at relatively low cost.

In supporting the idea that the combination of strict zoning regulations and fiscal capitalization converts the property tax into a benefit tax, Fischel (2001) interprets the extensive literature on the capitalization of property taxes and public services as demonstrating that fiscal "capitalization is everywhere." He concludes that empirical support of fiscal capitalization provides compelling evidence that the benefit tax view accurately describes the effects of the property tax. Fischel makes this argument in the context of a model in which local governments are analogous to municipal corporations that maximize the house values of "homeowner-voter shareholders" who strive to protect their housing investments.

The central result of my research is that even if empirical evidence of the phenomenon of fiscal capitalization implies that it is indeed "everywhere," such evidence does not establish the validity of the benefit tax view. Rather, my model shows that if one adopts all of the admittedly stringent assumptions of the benefit tax view, complete intrajurisdictional land value fiscal capitalization is also entirely consistent with, and indeed predicted by, the capital tax view of the property tax.

When combined with earlier results that demonstrate that interjurisdictional capitalization is also consistent with the capital tax view, my research results imply that the widely observed phenomenon of property tax capitalization provides little if any grounds for distinguishing between the capital tax and benefit tax views. That is, capitalization does not tell us whether the property tax should be viewed primarily as a progressive tax on all capital that inefficiently distorts decisions regarding housing consumption (the capital tax view), or an efficient user charge that has no effects on the distribution of income (the benefit tax view).

TABLE 1
The Benefit Tax and Capital Tax Views of the Property Tax

	The Benefit Tax View	The Capital Tax View
Basic Result	Property tax is effectively an efficient user charge for local public services.	Property tax is a distortionary tax on the use of capital.
Effects on Housing	No effect.	Reduces per capita housing consumption as taxpayers attempt to avoid the tax.
Effects on Public Services	Consistent with efficiency in local public service provision (Tiebout model).	Under-provision to avoid taxing mobile capital (tax competition model).
Benefit Tax Aspects	A pure benefit tax, borne in proportion to demands for local public services.	Some benefit tax aspects, since local tax increases are borne by local residents.
Implications on Income Redistribution	No effect, as local public services are allocated by willingness to pay.	Nationwide effect of tax on capital implies property tax is progressive.
Capitalization	Occurs as fiscal differentials are capitalized, with no changes in housing.	Occurs due to changes in allocation of capital used in housing.

A Reconstruction of the Benefit Tax View

My research begins by reconstructing the Tiebout-Hamilton benefit tax view within the context of a partial equilibrium version of the standard differential tax incidence model, which focuses on the effects of use of the property tax in a single taxing jurisdiction. This approach is necessary because the derivations of the benefit tax and capital tax views of the property tax are based on somewhat different theoretical approaches.

Hamilton's benefit tax view model characterizes the properties of an economy in equilibrium, with local public services financed by residential property taxes rather than the head taxes assumed by Tiebout. In contrast, the derivations of the capital tax view, such as those in Mieszkowski (1972) and Zodrow and Mieszkowski (1986b), are based on the differential tax incidence analysis pioneered by Harberger (1962). Under this approach, the effects of the property tax are analyzed by first constructing an initial equilibrium with either no taxes or only nondistortionary lump-sum taxes, and then introducing property taxes and analyzing their effects.

To facilitate a comparison of the two views, my analysis begins by deriving all of the benefit tax view results obtained in Hamilton's model of intrajurisdictional fiscal capitalization within the context of a differential tax incidence model, one that is typical of the capital tax view but nevertheless makes the essential—and admittedly rather stringent—assumptions characteristic of derivations of the benefit tax view. In particular, households are perfectly mobile across competing local jurisdictions with an exogenous source of income, and there are a sufficient number of jurisdictions to satisfy all tastes for local public services.

Following Hamilton, the model has two different types of households, one of which demands relatively larger houses. Initially, the local economy is assumed to be in a Tiebout equilibrium, with local public services as well as housing and the composite good provided at efficient levels, and with local public services being financed by uniform head taxes per household. The fixed supply of land within a jurisdiction is used either for large houses for "high demanders" or small houses for "low demanders."

The fixed supply of land within a jurisdiction is used either for large houses for "high demanders" or small houses for "low demanders."

Property taxes on all land and capital within the jurisdiction are then introduced into the model, with the revenues used to reduce the level of head taxation while holding the level of public services per capita fixed. Zoning is also introduced, by assuming that the amounts of land used for large and small houses are fixed. This is a weak version of the approach followed by Hamilton, who assumes fully developed communities and thus precludes any change in land or capital allocated to the two types of housing. Indeed, some form of land use zoning is required for any capitalization to occur since, in the absence of zoning, all land within the jurisdiction would in the long run sell for the same price and there would be no capitalization (Ross and Yinger 1999). In this derivation of the benefit view, housing capital is also assumed to be fixed, as in Hamilton's analysis.

The effects of introducing property taxes on both housing capital and land in this initial equilibrium are identical to those predicted by Hamilton. First, for large homes, which experience a disproportionately larger increase in property taxes, the resulting negative fiscal differential is fully capitalized into lower housing prices. Similarly, small houses sell at a premium that reflects the negative fiscal differential between total property

taxes paid and the associated benefits of the tax change as measured by the reduction in head taxes.

Second, the net change in land values due to capitalization in a heterogeneous jurisdiction is zero; that is, the aggregate amount of the discount in land prices for larger homes equals the aggregate amount of the premium in land prices for smaller homes. Third, the price of each type of housing rises by just enough to offset the cost of the public services that must be financed with property taxes.

To sum up, all of the benefit tax view results obtained by Hamilton are obtained within the context of a partial equilibrium differential tax incidence model of a single taxing jurisdiction that is comprised of households that are homogeneous with respect to demands for public services, but heterogeneous with respect to demands for housing. Once again, capitalization implies that the property tax is a benefit tax. Accordingly, the combination of property tax payments and capitalization effects implies that (1) taxpayers pay for all their local public services; (2) both housing and local public services are consumed at efficient levels; and (3) the property tax results in no redistribution of income.

Capitalization Under the Capital Tax View

Converting this model to accommodate a version of the capital tax view is straightforward. Recall, however, that this approach considers the effects of the property tax from the perspective of a single taxing jurisdiction, which is modeled as a small open economy that faces a perfectly elastic supply of capital. Since the net rate of return to capital is fixed by assumption, the effect of nationwide use of the property tax on the return to capital cannot be analyzed. Nevertheless, within the single taxing jurisdiction framework the effects of the property tax on the allocation of housing capital, as well as the effects of this tax-induced reallocation on all other variables, including the changes in land prices that are the focus of the analysis, can still be derived.

The key distinction between the benefit tax and capital tax views of the property tax is that under the latter approach the stocks of housing capital are not assumed to be fixed (although the zoning assumption of fixed land supplies for the two types of housing is maintained). That is, under the capital tax view, which clearly reflects a relatively long-run view of incidence, households can reduce their housing consumption in response to an increase in the property tax.

Given these assumptions, the implications of the capital tax version of the model are as follows. First, capital flows out of the production of large houses where property taxes are high relative to benefits received, and into the production of smaller homes where the property tax bill is low relative to benefits received. This reallocation of housing capital is an important factor in determining incidence—who ultimately pays the property tax. The analysis shows that land rents unambiguously increase for land used for small houses and decrease for land used for large houses, and it is these changes in land rents that are capitalized into land prices. The key result is that these land value capitalization effects under the capital tax view are precisely the same as those calculated previously under the benefit tax view. Thus, the existence of capitalization does not help resolve the critical issue of whether the benefit view or the capital tax view more accurately describes the incidence and economic effects of the property tax.

The other results derived in Hamilton's model obtain in this capital tax model as well. The net effect of property tax capitalization on aggregate land value within the taxing jurisdiction is zero. Similarly, the effects of the property tax on housing prices—which rise by an amount just sufficient to offset the value of public services received—are also identical under the two models, implying that housing prices for smaller homes increase proportionately more than prices for larger homes.

Despite this distortion of the allocation of

housing capital under the capital tax view, the local effects of use of the property tax still have some very important features that are characteristic of a benefit tax. For example, residents pay for net local public services received (those not financed with head taxes) in the form of higher housing prices. Simultaneously, fiscal differentials are capitalized into land values, so that the net effect of the property tax burden and land value capitalization is that future purchasers of both types of houses effectively pay for what they get in public services.

Thus, the essential difference between the two views of the property tax is that, under the capital tax view, land value capitalization occurs due to capital reallocations across housing types, implying inefficiency in the housing market. Under the benefit tax view, capitalization occurs with respect to fixed housing capital stocks, and there is no distortion of the allocation of housing capital. For example, if a local government finances an increase in public expenditures with additional property taxes, the resulting capitalization effects are the same under both views (and cause the same gains and losses at the time of implementation). However, the capital tax view implies that in the long run housing demands will decline, while housing consumption remains unchanged under the benefit tax view.

My model also shows that under the capital tax view per capita housing consumption declines unambiguously for both types of households, which is the standard result that the property tax causes an inefficient reduction in housing consumption. In addition, the number of households that purchase small houses unambiguously increases, while the net effect on the number of households that purchase large houses is theoretically ambiguous, and the total population in the jurisdiction increases.

Conclusion

This analysis shows that, within the context of a partial equilibrium analytical framework characterized by assumptions typical of the benefit view of the property tax, intrajurisdictional capitalization into land values of fiscal differentials is entirely consistent with, and indeed predicted by, the capital tax view of the property tax. Earlier results demonstrate that interjurisdictional capitalization is also consistent with the capital tax view (Kotlikoff and Summers 1987). Together, these results suggest, counter to the claims of benefit tax proponents, that empirical evidence supporting full capitalization of property taxes in land values—either within or across jurisdictions—provides little if any evidence that allows researchers to distinguish between the capital tax and benefit tax views.

Instead, the key issue is whether the zoning restrictions or other mechanisms stressed by proponents of the benefit tax view are sufficiently binding to preclude the long-run adjustments in housing capital predicted by the capital tax view. This issue promises to be a fertile topic for future research, which may help clarify the answer to the long-standing and critical question of who pays the residential property tax.

ABOUT THE AUTHORS

GEORGE R. ZODROW *is professor of economics and Rice Scholar in the Tax and Expenditure Policy Program of the Baker Institute for Public Policy at Rice University in Houston, Texas. Contact: zodrow@rice.edu*

REFERENCES

Fischel, William A. 2001. Municipal corporations, homeowners and the benefit view of the property tax. *In Property taxation and local government finance*, Wallace E. Oates, ed., 33–77. Cambridge MA: Lincoln Institute of Land Policy.

Hamilton, Bruce W. 1976. Capitalization of intrajurisdictional differences in local tax prices. *American Economic Review*, 66 (5): 743–753.

Harberger, Arnold C. 1962. The incidence of the corporate income tax. *Journal of Political Economy*, 70 (3): 215–240.

Kotlikoff, Laurence J., and Lawrence H. Summers. 1987. Tax incidence. In *Handbook of Public Economics, Volume I*, Alan J. Auerbach and Martin S. Feldstein, eds., 1043–1092. Amsterdam: North Holland.

Mieszkowski, Peter. 1972. The property tax: An excise tax or a profits tax? *Journal of Public Economics* 1 (1): 73–96.

Oates, Wallace E. 1969. The effects of property taxes and local public spending on property values: An empirical study of tax capitalization and the Tiebout hypothesis. *Journal of Political Economy*, 77 (6): 957–961.

Ross, Stephen, and John Yinger. 1999. Sorting and voting: A review of the literature on urban public finance. In *Handbook of Regional and Urban Economics, Volume 3*, Paul Cheshire and Edwin S. Mills, eds., 2001–2060. Amsterdam: North Holland.

Tiebout, Charles M. 1956. A pure theory of local expenditures. *Journal of Political Economy*, 64 (5): 416–424.

Zodrow, George R. 2001. Reflections on the new view and the benefit view of the property tax. In *Property taxation and local government finance*, Wallace E. Oates, ed., 79–111. Cambridge MA: Lincoln Institute of Land Policy.

Zodrow, George R. and Peter Mieszkowski. 1986a. Pigou, Tiebout, property taxation and the under-provision of local public goods. *Journal of Urban Economics*, 19 (3): 356–370.

———. 1986b. The new view of the property tax: A reformulation. *Regional Science and Urban Economics*, 16 (3): 309–327.

Dan L. Perlman *teaches at Brandeis University, in Waltham, Massachusetts, where he is chair of the Environmental Studies Program and associate professor of biology. He has coauthored three textbooks on conservation biology and ecology:* Practical Ecology for Planners, Developers, and Citizens *(with Jeffrey C. Milder, published by Island Press in cooperation with the Lincoln Institute of Land Policy, 2005);* Conserving Earth's Biodiversity *(an interactive CD-ROM with Edward O. Wilson, published by Island Press, 2000); and* Biodiversity: Exploring Values and Priorities in Conservation *(with Glenn Adelson, published by Blackwell Scientific, 1997).*

An avid nature photographer, Perlman's photographs have been exhibited at the American Museum of Natural History in New York and the Museum of Science in Boston, and he has been the photographer for two children's books (one on a Costa Rican rainforest and the other on ants). He recently launched a Web site from which he freely distributes teaching materials he has developed for ecology and environmental studies, including his photographs (www.EcoLibrary.org). He has received university-wide teaching awards at both Brandeis University and Harvard University, where he taught conservation biology part-time for nine years. He holds a Ph.D. from Harvard University's Department of Organismic and Evolutionary Biology. Contact: perlman@brandeis.edu

Dan L. Perlman

LAND LINES: *How can ecology help planners, landscape architects, and others in the planning and design community?*

DAN PERLMAN: The study of ecology reminds us that humans are truly a part of nature, although in our highly technological society it is easy to forget how closely our lives are tied to the land and other elements. Most of us are only reminded of these close interactions when nature unleashes her fury through a hurricane, tornado, flood, or earthquake. Given that the planning and design professions aim to make humans lives as healthy and fulfilling as possible, it is critical to attend to nature when changing the landscapes where we live and work.

Once one understands some basic concepts of ecology, it is no longer possible to view humans as being divorced from the ecosystems in which they live. Like all other organisms, humans interact with the plants and animals around them, and with the nonliving aspects of ecosystems, such as rain, wind, and fire. Unfortunately, when we design human communities without considering the particulars of the ecosystems in which they are embedded, we place people in dangerous and unhealthy situations. With a little ecological knowledge, however, planning professionals can improve human lives.

LAND LINES: *What aspects of ecology are especially pertinent to planners and designers?*

DAN PERLMAN: Over the past few decades, ecologists have begun paying close attention to disturbance regimes—the natural processes that randomly change ecosystems. It turns out that disturbances greatly affect humans as well as the plants and animals around us. In recent years it has become ever clearer that ecological disturbances such as hurricanes, forest fires, tsunamis, and earthquakes have the potential to devastate human communities.

By understanding the ecological histories and disturbance regimes of the specific landscapes in which they work, planning professionals can ensure that they do not place the human population in harm's way. While homes placed along Gulf Coast beaches or deep in the pine forests of the West are desirable to many, recognition of the dangers of hurricanes and fire will lead planners to either steer development away from dangerous settings or to create protections for the people living in potentially dangerous situations.

It is critical to remember, however, that landscapes differ in their disturbance regimes and the frequency and impact of their typical disturbances. It makes sense to focus on earthquakes, landslides, and fires in the hills of southern California and on hurricanes in Florida, rather than vice versa, for example, since those types of disturbances are most likely to occur in those locations.

LAND LINES: *Ecologists and conservation biologists are often accused of sounding alarm bells. Do they also offer positive visions for the future?*

DAN PERLMAN: Actually, there are many positive aspects to increased understanding of ecological processes. Intact and healthy natural landscapes perform critical ecosystem services that would be extremely expensive or impossible to replace through technological means. Water filtration, absorption of air pollutants and greenhouse gasses, and soil protection are just a few of the many services that nature provides.

Psychologists recognize the mental health benefits of being able to interact with nature, and planning professionals can help make these benefits widely available by incorporating easy access to natural areas into their designs. Many recent studies have demonstrated that proximity to natural areas is very attractive for wide cross-sections of the populace—along with being economically valuable. In addition, being able to interact with native habitats and organisms, or even just

knowing that they exist, can contribute to the mental health and well-being of people of all ages. It is especially important that young people have opportunities to experience and learn about nature so they can integrate that awareness into their future decision making about where and how they live.

LAND LINES: *How can the conservation of biodiversity be balanced with the needs and desires of the house-buying public?*
DAN PERLMAN: The goal of conservation biologists is to protect and restore healthy native species and ecosystems. New York City's recent efforts to protect its water supply through a variety of land protection programs around the upstate watersheds and reservoirs in the Catskill Mountains is a great example of balancing human and ecosystem health. By sensibly guiding development to specific areas and limiting it from ecologically fragile areas or areas that are especially important for human health, planners and policy makers can obtain real benefits for both humans and ecosystems alike.

If we also consider the well-being of nonhuman organisms and creatures that share our planet, we find that attention to conservation biology during planning can pay major dividends. Biologists know that small nature reserves isolated in seas of human development are not an effective way to protect the native plants and animals of our landscapes. Instead, wherever possible, we should create large protected areas that can support populations of larger animals, many of which play especially important roles in the functioning of healthy ecosystems.

In addition, there is some evidence that intact habitat corridors, if well planned, can link smaller reserves into networks that may approximate the functions of large reserves. If planners begin their considerations with these concepts in mind, they may be able to create healthy, diverse landscapes. It is difficult to create or protect large reserves and corridors once development has begun in earnest.

LAND LINES: *How will global climate change affect human health and safety, and what can planning professionals do to help?*
DAN PERLMAN: As the global climate warms, the effects will vary considerably from location to location. Some regions will receive more precipitation and others less; some areas will become much hotter, some will only become slightly warmer, and some may actually become colder. Nonetheless, the broad outlines of the changes that can be expected over the next 50 to 100 years are becoming clearer.

The global average temperature will likely rise a few degrees Fahrenheit—and may rise even more than that—as compared to the approximately one-degree change that has occurred over the past century. As the oceans warm, the water will expand, leading to a rise in sea level. With increased warmth, the Antarctic and Greenland glaciers will melt more quickly, adding to sea level rise. As a result, coastal communities will be under threat and will either have to retreat inland or build expensive retaining walls and levees. If the Antarctic ice shelves (which hang over the ocean) break off, sea level will rise still further—and catastrophically quickly. Changing precipitation and temperature regimes will alter the basics around which communities are planned and built, and designers will have to plan in different ways. It is possible that extreme weather events, such as the major hurricanes of 2005, will become more frequent.

To help reduce the speed and amplitude of climate change, the United States will probably eventually join the international community's consensus that carbon dioxide emissions must be reduced—and our communities can help reduce emissions by developing more public transit options and more compact development patterns. As an additional benefit, this may leave extra flexibility for setting aside and protecting natural areas, if human communities take up less of the landscape.

LAND LINES: *How has your work with the Lincoln Institute affected your thinking about conservation biology and ecology?*
DAN PERLMAN: Most of my teaching is with college undergraduates. While I try to keep those classes well-grounded by bringing in guest speakers and taking field trips, I have found that traditional classroom discussions can become overly rarified. My first major project with the Lincoln Institute was to write the book *Practical Ecology for Planners, Developers, and Citizens,* with Jeff Milder. I found it really stimulating to be put in a position of trying to adapt and explain my scientific background to make ecological concepts understandable to planners, landscape architects, and planning board members. It is one thing to distill these concepts and discuss them with undergraduates, but it is quite different to present these ideas to professionals and decision makers who want guidance that is clear and actually useful.

As an outgrowth of the book project I have been involved in teaching and sitting on panels for several Lincoln programs. I have found that the professionals and practitioners taking these programs further challenge me to create a coherent and effective message. As with any stimulating group in a classroom, I find that I come away from these sessions with a sense that I have learned as much as anyone in the room.

LAND LINES: *From your ecological and conservation perspectives, what advice would you give a designer or planner today?*
DAN PERLMAN: First, I would say that you should know the ecology of the region where you work. The ecological constraints and opportunities of Springfield, Oregon, are quite different from those of Springfields in Illinois, Georgia, and Massachusetts. There are no ecological prescriptions that fit all planning and design situations. As I learned early in my career, the First Law of Ecology is: It Depends.

Second, I would recommend paying careful attention to giving local residents easy access to nature—even to small natural areas of just a few acres. Adults and children flourish when in contact with nature, and there is no substitute for having small bits of native biodiversity nearby. I once heard Dr. Madhav Gadgil, the preeminent ecologist in India, state his wish that every child in his nation should have a little bit of wilderness near at hand. While his definition of wilderness may differ from that of ecologists in Boulder or Seattle, his hope is one that I feel deeply.

Research Fellowships

The Research Fellowships in Planning and Development were established in 2004 to support research on land planning and development topics related to the Institute's existing research agenda. Among the questions of interest are: How can land value best be mobilized to benefit communities? How can we provide for equitable access to land? How do we sort out the competing claims of individuals and society on the use of land?

Recipients of these fellowships present their research at a work-in-progress seminar at the Lincoln Institute and prepare a working paper to document their completed work. The next application deadline is September 15, 2006; awards will be announced by November 15, 2006.

Impacts of the Durham Community Land Trustees on Local Neighborhoods

Karen A. Gray
College of Social Work, University of South Carolina, Columbia

This case study examines the effects of the Durham Community Land Trustees (DCLT) on economic well-being, neighborhood resources, and social capital in its neighborhoods since 1980. Establishing causality in community-based interventions is difficult due to the ethical and pragmatic barriers to experimental design. However, by matching the Durham CLT to a community that does not have a CLT but is otherwise similar in size, demographics, and location, and by examining changes within and between those communities, we aim to better isolate those differences associated with CLTs.

Evaluating Conservation Subdivision Design

Elisabeth Hamin
Department of Landscape Architecture, University of Massachusetts, Amherst

Conservation subdivision design (CSD) ideally begins with an analysis of the project site indicating key environmental areas to be preserved, and then locates house sites on the remaining project area, keeping 50 percent or more of the total project land as dedicated open space. As theorized, this type of development should achieve more public purposes than traditional subdivisions, while still ensuring full profit for the developer. An empirically based understanding of how bylaws and ordinances are written and their resulting projects will allow policy makers to better match their regulations to the outcomes they hope to achieve.

Envisioning Regional Recovery Futures: Places, Persons, Economies, and Ecosystems

Lewis Hopkins
Department of Urban and Regional Planning, University of Illinois at Urbana Champaign

Hurricane Katrina was a catastrophe from the perspectives of places, persons as individuals and groups, the economy at many levels, and ecosystems. Its aftermath presents a huge set of problems begging for planning efforts by many groups at many resolutions and scopes. The objective of this study is to create a set of representations using graphics, numbers, and stories to help the residents and other participants think about possible futures and actions using formats that are well established in planning practice and scholarship.

Will "Streamlining" the Mortgage Foreclosure Process Reduce Vacancy and Abandonment?

Dan Immergluck
Department of City and Regional Planning, Georgia Institute of Technology, Atlanta

Many U.S. communities have experienced large increases in residential mortgage foreclosures, especially in older urban neighborhoods. This study seeks to determine the extent to which legal systems that permit faster mortgage foreclosure processes may reduce the incidence of vacant and abandoned buildings in urban areas. It compares the effect of foreclosures on changes in single-family vacancy rates in two cities with very different foreclosure procedures and timelines—Chicago and Atlanta.

Beyond the Metroplex: Examining Commuter Patterns at the "Macropolitan" Scale

Robert E. Lang and Arthur C. Nelson
Metropolitan Institute at Virginia Tech, Alexandria

This study looks at a new urban unit of analysis—the "macropolitan" area—that is bigger than existing metropolitan areas, but smaller than the recently identified "megapolitan" areas. Macros are defined here as two or more metro areas with economic linkages as demonstrated by commuter patterns. This study has major implications for the policy movement advancing mega-regional planning. The results will inform a growing audience of academics, planners, and policy makers who seek to improve land use practices on the trans-metropolitan scale.

Community Land Trust Research Projects

There are approximately 160 community land trusts (CLTs) of varying sizes around the country. CLTs are typically private, non-profit organizations that provide affordable housing and engage in community development, but they differ from other nonprofit organizations in the way they treat the ownership of land and improvements. A CLT generally acquires parcels of land in a targeted geographic area with the intention of retaining ownership in perpetuity and then provides for the private use of the land through long-term ground lease agreements. The following researchers have been selected to prepare papers and participate in a Lincoln Institute research seminar on CLTs, property tax practice and policy, and the effectiveness of this approach to affordable housing.

Community Land Trusts and Housing Affordability

Thomas Angiotti
Urban Affairs and Planning Department, Hunter College, New York, New York

This project examines the relationship between CLTs and long-term housing affordability by analyzing in depth at least three established CLTs in diverse geographic and policy settings that use different forms of housing tenure (homeowner, cooperator, and renter). The financial plans and costs for projects carried out by these CLTs are analyzed to assess long-term land costs and the extent to which they may contribute to the preservation of affordability. The study also looks at the long-term impacts of CLTs on household incomes, public subsidies, and neighborhood preservation.

Community Land Trusts: Understanding the Impact of Local Government Real Property Assessment Practices

Courtney Alfred Haff
Haff Associates, Inc., Great Barrington, Massachusetts

The research examines economic impacts of property tax policy on community land trusts. A representative sample survey of CLTs identifies their characteristics and determines local government methods of assessing land and improvements. Case studies assess CLT characteristics, state regulation requirements, valuation guidelines, measures of assessment quality, and resale formulas.

The Effectiveness of Community Land Trusts: An Affordable Homeownership Comparison

Mickey Lauria
Department of City and Regional Planning, Clemson University, South Carolina

The CLT concept demonstrates promise as an affordable housing strategy that allocates resources wisely and creates sustainable affordability. Despite this promise, however, more research is necessary to understand how effective CLTs are compared to other affordable housing strategies. This research examines CLTs in the context of other affordable homeownership programs to evaluate the relative efficiency with which they use public subsidies.

The Dynamic among Community Land Trusts, Local Taxes, and Affordable Housing Incentives

Alexis Perrotta
Regional Plan Association, New York, New York

CLTs remove the cost of land from the purchase price of a home, yet they operate in state and local regulatory environments that may not assess land and property separately. In addition to the complexities of assessing CLT assets, municipalities must balance their need for affordable housing with concerns about an eroding tax base and increasing local expenses. State and local tax policy may also be impacted by existing tax incentives for affordable housing development. This project explores how CLTs are taxed around the country and analyzing the underlying assumptions that lead to various tax policies.

Courses and Conferences

The open enrollment courses and conferences listed here are presented at Lincoln House in Cambridge, Massachusetts, unless otherwise noted. For more information about the agenda, faculty, accommodations, tuition, fees, and registration procedures, visit the Lincoln Institute Web site at *www.lincolninst.edu/educationcourses.asp*. For more information about courses offered by the Institute's Program on Latin America and the Caribbean, visit *www.lincolninst.edu/aboutlincoln/lac.asp*.

MONDAY–THURSDAY, APRIL 3–6
Seabeck, Washington

Community Land Trust Academy: Intermediate Level Survey Course

John Davis, Burlington Associates in Community Development LLC, Burlington, Vermont

The first annual Community Land Trust (CLT) Academy is an intense three-day workshop offering training to CLT staff and board members. The goal of the CLT Academy is to provide resources and tools for CLTs in their first five years of operation, to help them anticipate and address opportunities and challenges in building and growing membership, developing projects, procuring financing, seeking partnerships, and sustaining a stronger organization. A comprehensive range of informative workshops, speakers, joint problem-solving exercises, and networking opportunities allow participants to gain experience and knowledge from their peers and expert trainers.

WEDNESDAY–FRIDAY, APRIL 5–7
Lincoln House

Advanced Mediating Land Use Disputes

Lawrence Susskind, Merrick Hoben, and Ona Ferguson, Consensus Building Institute, Cambridge, Massachusetts; Ric Richardson, University of New Mexico, Albuquerque

This interactive three-day course is designed for those who have attended Mediating Land Use Disputes I or are trained mediators with public policy dispute resolution experience. Participants explore different approaches to consensual land use decision making and deepen their understanding of assisted negotiation techniques to settle land use disputes. They also learn about the special problems associated with infrastructure and facility siting disputes, disagreements over how to manage new development, environmental justice battles, zoning and permitting rights, and discord over the preparation of long-range resource management and land use plans. This course qualifies for 13.25 AICP continuing education credits.

MONDAY–TUESDAY, APRIL 24–25
Atlanta, Georgia

The Urban University as Real Estate Developer: Leadership for 360–Degree Development

David Perry, Great Cities Institute, University of Illinois at Chicago

The sixth annual Urban University as Real Estate Developer program draws on the experience of three universities in Atlanta: Georgia Tech University, Morehouse College, and Georgia State University. The focus is on different partnerships fostered by each of these universities and the subsequent role each of them played in executing real estate developments in their neighborhoods and the city as a whole.

MONDAY–FRIDAY, APRIL 24–28
San Salvador, El Salvador

Property Taxation in Latin America

Martim Smolka, Lincoln Institute of Land Policy; Claudia De Cesare, Municipality of Porto Alegre, Brazil; and Lilian Vega, "José Simeón Cañas" Central American University (UCA), San Salvador, El Salvador

Leading practitioners involved in the administration of property taxes in Central America share their experiences, improve their access to useful information, and exchange views on tax issues. Theoretical and practical aspects of the property tax are examined, including determination of property values; the context of urban finance; principles of taxation; components and definition of the tax base; assessment performance; tax rates and exemptions; information systems (cadastre, maps, and GIS); collection and appeal; and responsibilities of policy makers and administrators.

WEDNESDAY, MAY 10
Lincoln House

Comprehensive Planning

John R. Mullin, Center for Economic Development, University of Massachusetts, Amherst

This in-depth review of fundamental planning principles and the planning process explores both the theoretical and practical aspects of comprehensive planning. It is designed to equip participants with state-of-the-art tools and techniques for realizing specific planning objectives, and for framing, implementing, assessing, and managing comprehensive plans. Topics include strategic and long-range planning, the land use plan, the capital improvements plan, the plan and the map, the plan and zoning, and growth management. This course qualifies for 4.25 AICP continuing education credits.

MONDAY–WEDNESDAY, MAY 22–24
Rosario, Argentina

Distribution of Costs and Benefits in the Urbanization Process: New Value Capture Tools

Martim Smolka, Lincoln Institute of Land Policy; Beatriz Cuenya, Center for Urban and Regional Studies, Buenos Aires, Argentina; and Eduardo Reese, Conurbano Institute, General Sarmiento National University, Buenos Aires

The objective of this seminar is to reflect on and debate the opportunities, strengths, and challenges for municipal policies to implement innovative land management programs, tools, or actions that would promote a more equitable distribution of costs and benefits in the urbanization process, and to facilitate access to land by those with limited resources. The seminar proposes an action-oriented debate, with goals of stimulating reflection on the content as well as the instruments for urban development and guiding the transformation of socio-territorial processes.

MONDAY–SATURDAY, MAY 29–JUNE 3
San José, Costa Rica

Regularization of Urban Land

Betania Alfonsín, ACESSO and Social Urbanizer Project, Rio de Janeiro, Brazil; Adriana de Araujo Larangeira, Municipality of Rio de Janeiro; Samuel Jaramillo, University of the Andes, Bogotá, Colombia; Patricia Fuentes, "José Simeón Cañas" Central American University (UCA), San Salvador, El Salvador; and Ninette Morales, HABITAR, Managua, Nicaragua

This course promotes the discussion and analysis of informal land markets and the process of regularization of urban land among all the actors in the process: government officals, academics, private construction companies, formal and informal developers, community leaders, and representatives of community organizations. The course offers these groups the opportunity to share experiences through the analysis of their own countries and other Latin American cases.

MONDAY–FRIDAY, JUNE 5–9
Querétaro, Mexico

Large-Scale Urban Redevelopment Projects in Latin America

Ignacio Kunz, National Autonomous University of México, Mexico City; Eduardo Rojas, Inter-American Development Bank, Washington, DC; Eduardo Reese, Conurbano Institute, General Sarmiento National University, Buenos Aires, Argentina; and Paulo Sandroni, Getúlio Vargas Foundation, São Paulo, Brazil

Developed for experts involved in large-scale urban redevelopment, as well as for politicians and academics, this course is set in the context of the land regulation crisis in various Latin American countries and the new paradigms of urban management. Using several case studies, students discuss the rationale for large-scale urban interventions, the implementation process, and criteria to evaluate their impact on cities. The program topics include the conceptual framework; analysis of alternative regulations (punitive versus incentive-based conditions); examination of the broader effects of land use regulation and economic investments; the role of local, state, and national governments and the private sector in management of these projects; and social and urban impacts. Case studies include recuperation of deteriorated or technologically obsolete zones and historical centers, and the reuse of vacant land.

MONDAY–FRIDAY, JULY 24–28, 2006
Lincoln House, Cambridge, MA

Curriculum Development for Graduate Planning Programs: Fiscal Dimensions of Planning

Jack Huddleston, Urban and Regional Planning, University of Wisconsin-Madison; and Rosalind Greenstein, Lincoln Institute of Land Policy

This week-long seminar is for graduate-level instructors of urban and regional planning who are interested in offering a course (or a module within an existing course) on fiscal instruments relevant to urban planning. Participants consider these fiscal instruments as they relate to planning and development and review literature and case examples while developing an outline they can use with their own students.

AUGUST 1–31
Rotterdam, The Netherlands

Land Management and Informal Settlement Regularization

Claudio Acioly Jr., Institute for Housing and Urban Development Studies, Rotterdam

Upgrading and land tenure regularization require strong community organization, support systems, and administrative infrastructures, as well as policy intervention at the legal, institutional, financial, and program management levels. Designed for professionals, senior executives of government and nongovernmental organizations, and researchers directly involved with housing and land policies in developing and transitional countries, the course broadens participants' knowledge of policies and instruments for informal settlements.

Lincoln Lecture Series

The Institute's annual lecture series is presented at Lincoln House in Cambridge, Massachusetts, beginning at 12 p.m. (lunch is provided), unless otherwise noted. Consult the Lincoln Institute Web site *(www.lincolninst.edu)* for information about other dates, speakers, and lecture topics. The programs are free, but pre-registration is required. Contact *help@lincolninst.edu* to register.

TUESDAY, APRIL 11

Valuing New Development in Distressed Urban Neighborhoods: Does Design Matter?

Brent D. Ryan and Rachel Weber, Urban Planning and Policy Program, University of Illinois at Chicago

THURSDAY, MAY 4

Reality Check Plus in Maryland: A Visionary Start to a New Era in State Land Use Policy

Gerrit Knaap, National Center for Smart Growth, University of Maryland

LINCOLN EDUCATION ONLINE (LEO) is an educational resource offering free online planning courses that allow the convenience of "anytime, anywhere" learning. LEO courses are designed to be self-paced and self-directed. Each lesson builds on another, but can be viewed independently in any order and can be repeated as often as desired. This planning series is designed for members of planning, zoning, or conservation boards, volunteers on local land use or open space committees, and other citizens and activists interested in land use planning and development. Go to *http://leo.lincolninst.edu/*

Planning Fundamentals

This course introduces planning vocabulary, concepts, and processes for planning officials and members of planning boards, conservation commissions, and zoning boards. It consists of 22 lessons and 5 self-assessment quizzes, and is supplemented with audio clips, case studies, and links to other Web-based resources.

Vermont Planning Fundamentals

A companion course to Planning Fundamentals, this course adds Vermont-specific lessons and materials. By linking the two courses, users can learn about general principles and then see how they are being applied in a specific state. Lessons cover topics such as master planning, environmental planning, town plans, zoning, growth management, historic preservation, and housing.

Planning Fundamentals: Concepts in Land Use

This is an extension of Planning Fundamentals, focusing on the interplay between land use and transportation and the market forces affecting land use. This course also addresses accessibility issues and the roles of government, developers, and businesses.

Introduction to New England Forests

The topics of forest management, ecology, stewardship, and sustainability are explored in this course. It teaches how woodlands can be actively managed for timber and at the same time protected for future generations. It also explores forest ecology and protection in the context of urbanization and suburban growth. Although the course focuses on New England, many of the ideas apply to forested areas in other parts of the country and the world.

Defining Planning

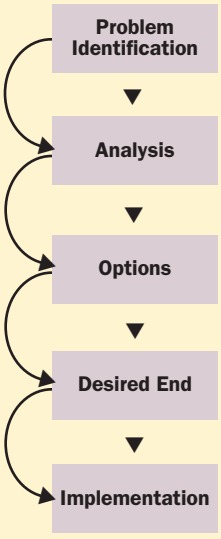
Planning is a **process** through which society's goods and services are distributed as equally and efficiently as possible according to the will of the people and with regard to the future.

The word "process" means that planning is undertaken in an orderly manner through established rules and regulations. For example, at its most basic, the process of creating a plan has three phases:

The Basic Components of the Process

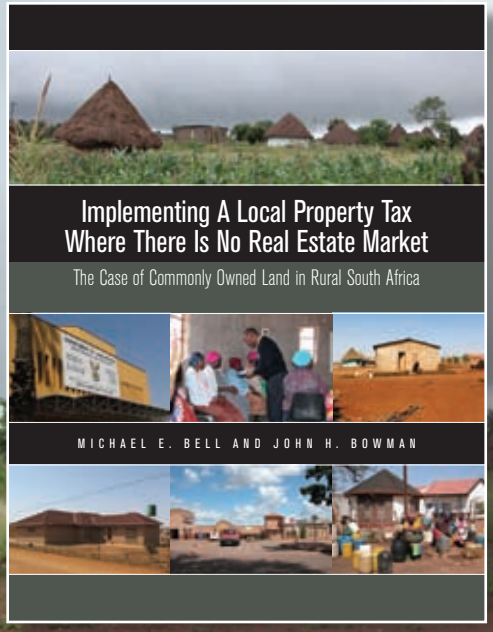
Inventory ▶ **Analysis** ▶ **Implementation**

If we are focusing on a specific issue or problem in a community, then the typical process looks like this:



The Typical Planning Process

Excerpted from the Planning Fundamentals course



Implementing a Local Property Tax Where There Is No Real Estate Market:

The Case of Commonly Owned Land in Rural South Africa

Michael E. Bell and John H. Bowman

2006 / 20 pages / Paper / $10.00
ISBN 1-55844-169-7

Since 1995 the authors have worked on a series of property taxation projects in South Africa, funded in part by the Lincoln Institute of Land Policy. South Africa envisions extending value-based property taxation, long established in white urban areas, into rural areas and former black local authority areas. Special problems arise in rural tribal areas, however, where continued traditional communal land ownership means property markets will not develop to provide values.

This report summarizes what was learned from a workshop held in a tribal area of Limpopo Province, which sought to assist local residents in identifying land attributes that affect the relative desirability of different plots, and to apply those criteria to selected plots as a step toward developing taxable values that are reasonable proxies for market value. Although the focus here is on South Africa, the approach and lessons learned have broader applications in other developing and transitional countries where a modern, mature property tax based on market values is not feasible.

LINCOLN INSTITUTE OF LAND POLICY

113 Brattle Street
Cambridge, MA 02138-3400
USA

RETURN SERVICE REQUESTED

Non-Profit Org.
U.S. Postage
PAID
Boston, MA
Permit No. 57852

Land Lines
APRIL 2006