Abstract

This annotated bibliography comprises over 490 citations to literature on land value taxation and value capture techniques published between 2007 and 2013. This working paper builds on previous work by Grote and Dye (2008) which annotates land value taxation literature from 1870 to 2007. The companion table of contents, published as a searchable spreadsheet, indexes over 850 citations from both working papers by author, title, year, orientation (land value taxation or value capture techniques), geography, keyword, publication type, and working paper author.

Keywords: Land Value Tax, Value Capture, Henry George Theorem
About the Author(s)

Jeffrey I. Chapman is Foundation Professor emeritus at the School of Public Affairs at Arizona State University. His research interests include state and local fiscal sustainability, urban public finance, and property tax reform. He can be contacted at jeffrey.chapman@asu.edu.

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Annotated Bibliography on Land Value Taxation and Value Capture  
(With a little bit on the Henry George Theorem) 
2007-2013 


Although urban transport systems have some characteristics of public goods, the role of public sector is significant particularly in investment and regulation. However, the private sector’s role in recent year has been expanded and redefined. The performance of both public and private sectors depends upon the institutional framework in place. Urban transport in developing megacities suffers from the lack of effective institutional arrangements. Further as urban transport activities are more capital intensive, adequate provision of funding and financing is prerequisite for the success of any well-designed plans and policy. However, funding and financing gaps have remained. 


Contribucion por Valorizacion is a form of value capture similar to a Special Assessment, used in Colombia to complement local revenues for major public infrastructure programs. Participacion en Plusvalias is an instrument recently implemented to capture up to 50% of the increments on land values created by public actions, similar to betterment levies and unearned increment taxes. This newer, more complex form of value capture faces important implementation challenges. The purpose of this study is to evaluate both Special Assessments (SA) and Participation in Land Value Increments (PLVI), in order to understand what elements of the process of implementation and consolidation of SA, can inform a strategy to make PLVI a politically sustainable policy instrument. The research unpacks the experience in Bogota with SA and sheds light on alternate approaches for PLVI’s current managers to address the new instrument’s challenging implementation arena. The findings of the study suggest that for PLVI to be successful, strategic choices that reframe its management as a long term policy rather than a procedure, must be made. 


This chapter argues that if business rates (British property taxes) were replaced by a land tax, development of business property would be encouraged. Mentions incidence, notes that owners of highly developed property would gain while owners of undeveloped
property would lose. Notes that economic activity that would be worthwhile without a land value tax remains worthwhile with it. Also notes that there may be a possibility that land might be shifted between business and residential use in response to the tax.


The development of transport infrastructure generally gives rise to an increase in the value of the land and buildings served. The value is estimated to be between 5% to 10% for residential properties, and between 10% and 30% for commercial properties. Conversely, it can have a negative impact: pollution, noise, an increase in traffic, a loss of prestige in local areas, or a drop in value in areas that are not served by public transport. The challenge facing developers of a new line is knowing how to capture the value generated. A number of methods have already been tested, and they can be divided into three distinct categories: 1. anticipated purchase of land in order to sell it at a profit, or to develop business activities on it; 2. introducing a betterment tax to capture land value gains; 3. establishing a Public Private Partnership. None of these options are self-contained. Book contains six case studies.


The project has contains a useful augmentation of the definition of value capture. Value capture in future manufacturing is based on dual process of value creation (innovations in technology, design and efficiency to increase the value created in the firm) and value appropriation (innovative business models and improvements in efficiency).


While purely private sector oriented, this paper may have lessons for public entrepreneurship and value creation and capture. Entrepreneurs generate value through the creation or expansion of economic activity by identifying and exploiting new products, processes or markets. Entrepreneurial activity is the pursuit of this generation of value. Entrepreneurial activity is different from ordinary business activity. Thus, value capture might be different from ordinary tax policies.


This paper analyzes the role of the property tax in Lithuania, with an emphasis on comparing mass appraisal valuation results to real market value. Included in this discussion is an analysis of the land value tax, which is an integral part of the property tax
system. It finds that the taxable value of land has changed for many years, and that it is impossible to achieve certain goals connected to land, for example improvement of infrastructure, roads, etc. The use of market oriented land taxable value should be introduced. The changes of valuation method and the use of mass appraisal for land taxation can considerably increase revenue from land taxation.


Lithuania implemented a market value based real property tax in January 2006. As part of this, there were separate tax treatments of land and buildings. This chapter identifies the characteristics of the land tax and the necessary factors for its development. The authors note that the land tax, as currently applied, does not promote efficient and sustainable land use and that several drafts of legal acts to reform the tax have been proposed. In particular, mass appraisal techniques are been adopted.


Two factors are critical for implementing strategic projects: institutional design and value capture. A brief introduction to institutional design is followed by an exposition of value capture: capturing the indirect benefits of public investments to fund the development and operation of public projects. Institutional design answers the question: how to institutionalize and effect value capture to enable a proposed project to be funded. Alternative modes of value capture are associated with different forms of institutional design, including levies, Special Districts and public–private partnerships. The case of the Ayalon Metropolitan Park in Tel-Aviv, Israel, illustrates the need for strategic project planning to include institutional design for value capture.


This paper focuses on a limited number of dimensions of urban infrastructure finance. These include: Finance for major infrastructure improvements in major economic centers; finance for expansion of basic municipal services in secondary cities and towns; and intergovernmental systems for financing investments with impacts beyond jurisdictional limits. Also included is a review of current practices, an examination of international evidence and case studies, and a look at areas in which knowledge gaps remain. Included in the discussion are land value capture financing techniques.

This paper focuses on several dimensions of urban infrastructure finance: finance for major infrastructure improvements in major economic centers, finance for expansion of basic municipal services in secondary cities and towns, and intergovernmental systems for financing investments with impacts beyond jurisdictional limits. It reviews what is “known” about current practices in these areas, using international evidence and case studies and summarizing international best practices. It also indicates areas in which knowledge gaps remain. Some suggestions for a research agenda on financing urban infrastructure are offered. Value capture is discussed.


This complex article uses a neo-classical growth model to examine the increases and decreases in land and stock process in Japan. The author attempts to examine changes in these asset prices that occur because of land related taxation. The model does not generate any significant change in land values if the government follows a land tax policy that is countercyclical to land prices. Model is calibrated for Japan. Finds that if the observed increase in productivity and decline in land taxes were expected to be permanent, the model can account for the movements in asset prices.


This paper examines the use of information systems to examine a service minded view of customer activities. In this context, it defines value capture in terms of the customer’s experience of obtaining from the service as well as the producer’s experience in obtaining value in exchange for the customer’s value. Recognizes that value capture can be realized by both providers and customers. While private sector oriented, may have implications for public sector.


The author’s comparative research on the laws and practices in 13 advanced-economy countries around the world is the basis of this paper, which addresses the degree to which recapture of the “unearned increment” is a useful approach that policymakers should adopt for financing or incentivizing the delivery of public services and affordable housing. The author hypothesizes four preconditions for reasonably successful application of indirect modes of value capture: Governments should have well-trained professionals to negotiate with the developers or to develop preset formulas of impact assessment; local government should conduct monitoring of fluctuations in land prices; there should be enough transparency in negotiated exactions to help withstand legal
challenges; and countries or local authorities known for high levels of corruption should refrain from adopting value capture instruments with discretionary elements.


This chapter first discusses the implications of the property rights debate for policies about land value changes. One view is that landowners should keep the full windfall as part of the general rules of the economic game. Another view is that the owners of real property owe society a part of the “unearned increment.” The chapter then discusses the history of the notion of “unearned increment” with the specific idea of capturing increments created by land use regulation. The chapter then discusses instruments for direct value capture and argues that direct value capture can be divided into two subtypes: capture of the unearned increment and capture of betterment. Betterment can be subdivided into betterment arising from the provision of public infrastructure works and betterment arising from land use regulation.


This article examines the policy debate in the Netherlands concerning the introduction of an open space tax—a tax that was ultimately not introduced. This debate on taxing took place in a context in which four different objectives for a development tax were identified: an open space tax to internalize welfare losses, a negative tax (value capture), and a development tax for both steering development and for raising money. An open space tax compensates for the loss of welfare when open spaces are turned into buildings.


The purpose of this viewpoint is to identify situations where care and analysis are needed so as to assess either the impacts of existing economic tools. Examples are provided to demonstrate where economic tools are applied without due consideration of their current impact and where policies are advocated without fully assessing the economic impact. These cases include methods of financing infrastructure, the application of pricing rules for user charges and the impacts of tools for encouraging public benefits when approving new development.

This Recommended Practice guides transit agencies for partnering with businesses and community entities to promote transit-oriented development and joint development. It notes these agencies may lack a thorough knowledge of real estate development principles and a realistic understanding of value capture. Among the questions they should address in the economic analysis is whether the land value and potential development density and mix of uses will be adequate. In particular, transit agencies should remember that value capture/creation can take many forms and that the meaning of value capture may be different for different agencies and for public and private sector partners.


This article examines the revenue sources that Chinese local governments can use to finance local public services. The article analyzes the potential impacts of fees and real estate taxes on housing prices and patterns of development. Dynamic models are used. Finds that market prices for land is not the norm. The paper identifies an option using land value taxation, based on the socialist reality of collective land ownership. The government could grant a land lease that is the equivalent to ownership and then apply a tax on land values to generate revenue. Using the dynamic model, this article finds that compared to the traditional property tax, there will be a speed up in development and greater density will occur.


This chapter summarizes the findings of 22 articles that attempt to determine the effects of land value taxation. These articles have used computable general equilibrium models, regression models, simulation models, interview with developer models, and comparison models. They show mixed results. There are also measurement difficulties and city-specific peculiarities. Concludes that there is a limited number of credible empirical studies providing reliable but mixed evidence.


This chapter discusses public and private leasehold regimes and then applies this analysis to China. Under a private regime, the landowner transfers the right to enjoy public benefits and the property tax costs of the benefits to the lessee. Under a public regime, the landowner is the government and both the right to enjoy the benefit of public
improvements and the cost of those benefits is passed on to the lessee as part of the lease rate charged by government. This chapter also shows the equivalence between a tax on the value of property and the annual net rental income.


This report aims to advise governments from developed and developing countries on a broad mix of instruments that they can use at the national or sub-national levels to scale-up private investment in sustainable transport infrastructure. One instrument is land value capture. Land value capture tools capture revenues from the indirect and proximity benefits generated by transport infrastructure (e.g. increased real estate value) to finance transport projects. They can be used as part of the capital financing mix to improve projects’ profitability. They include: Tax increment financing and assessment districts, development charges, impact fees and transportation utility fees, development charges, impact fees and transportation utility fees, developer land sales, joint property development, and land taxes. The use of land value capture tools is however hindered by several challenges: (i) political challenges; (ii) administrative challenges; and (iii) perverse incentives.


Housing affordability is becoming the political issue in Auckland, New Zealand. From the perspective of the central government, the issue is framed as a misuse of planning that interferes in the workings of the property market place. From the perspective of Auckland Council the issue is framed by a planning ethos favouring urban containment imperatives, and the transport, environmental, economic and social costs of a sprawling city. This paper unpacks the rhetoric around these two distinct approaches. It explains that the Council has quietly dropped the two more innovative priority areas, value capture through a betterment levy and inclusionary zoning. Whilst both decisions were supported with brief technical reports, they may have been political judgment calls.


This paper compares approaches to planning and delivery of affordable housing across England, Australia and New Zealand. The authors look at the extent to which affordable housing policies have been directly linked to value capture and therefore a means of cross subsidizing affordable housing without direct subsidy. This has been most directly addressed in the English system which generates value by giving planning permission
and then through contractual arrangements both transfers value and usually allocates land to affordable housing while maintaining the project’s financial viability. But the nature and extent of the affordable housing contribution is to an important degree dependent on the buoyancy of the market—and it is not clear how successful the approach can be in the light of the global financial crisis. In Australia and New Zealand the reliance on value capture to support affordable housing provision is also far more limited, indirect, opaque and largely unacknowledged.


Tax revenues can be considered an important fiscal instrument in territory development planning. Application of this instrument in land-use management decision-making may prevent the so-called urban sprawl and reduce the risk of value decrease of inefficiently used infrastructure and environmental resources. The present research focuses on the application of the developed set of fiscal algorithms in land-use management and decision-making at a municipal level. The set of fiscal algorithms has been developed using the methodological framework for land-use efficiency assessment and the cost-benefit analysis method. The main research results have been substantiated.


Metrolinx has proposed $50 billion in investment in transportation infrastructure over the next 25 years in the Greater Toronto and Hamilton Area (GTHA), therefore requiring approximately $2 billion per year. This report looks at the many options for generating that revenue. These options include increases to existing taxes, charges and fees, but also new methods. There is a discussion of Land Value Capture including adequacy, stability, equity, accountability, administrative and implementation ease, policy fit, stakeholder analysis, and revenue estimates. The report concludes that considering the adequacy, equity, accountability, ease of administration and policy fit, a land value capture tax is not recommended for implementation, since proving the assessment increase due to public investment is too difficult.


Consisting of 15 chapters, this edited book discusses the setting, the scope, fairness, political issues, data collection and valuation, property rights and the Baltic experience in property taxes and property tax reform. Several of the chapters, which are included in this bibliography, refer to either land taxes or value capture.
This chapter introduces the volume on property taxes in developing countries. It identifies the two sets of issues that are addressed: why hasn’t the property tax worked well in most developing and transitional countries and what can be done to make the property tax a more relevant source of revenue in those countries. It identify the underlying theme of most of the chapters: the property tax is in a perpetual transition and that the transitions are moving in the right direction. The authors identify four conclusions: during a transition, second-best solutions are acceptable; institutions matter greatly; an accurate valuation of the tax base is the key to success; and with careful design and administration, the property tax the property tax can be a key to strengthening local government finance.


This book addresses the role of the property tax in government finance, both in the US and around the world. The chapters in the book address what people think they know about the property tax (the conventional wisdom) and reviews the performance and effects of the property tax in comparison to other review sources. There are some chapters in the book that address land taxes in particular. These chapters are listed separately in this bibliography.


This paper addresses property tax reform in developing countries. The unified property tax brings together and restructures the traditional urban property tax, property transfer taxes and various forms of land value increment taxes and could generate enough revenue to justify the significant administrative costs. The paper discusses both value capture and land taxes.


This chapter starts with an economic model that explains why the tax is seldom used. It continues with a description of the revenue performance of the tax in developing countries as well as an explanation of the high administrative costs. It then examines several types of property taxes, including betterment taxes. It concludes with a model of a unified tax on immobile property.

Master’s thesis that looks at value capture as an innovative finance technique. Claims that special assessments on parcels that directly benefit from transportation improvements are the most prominent value capture tool used in the United States. Notes that finance complexity is an extra evaluative dimension of project management. Does ten case studies of financing options for surface transportation projects in the United States.


This paper describes and analyzes alternative models for the financing of public sector infrastructure, using experiences in the UK. The focus is on local government as the primary provider of public sector infrastructure. The conclusions outline a practical combination of financing models based on local and national taxes and charges that are directly related to provision of public sector infrastructure. Funding models include taxes, betterment taxes (value capture), infrastructure charges, and land value taxes.


This Master's thesis examines the problem of convincing homeowners to accept new housing density in their neighborhoods. It approaches the question of removing regulatory barriers from the perspective of devising a process that would effectively reduce homeowner apprehension about the effects of densification. Devising a system that explicitly regulates the pace of change and captures increases in land value attributable to densification is found to be essential to overcoming homeowner concerns about densification. It is proposed that local governments allocate densification rights through public auctions.


A central planning question that comes from restructuring land markets during an agrarian to urban transition is how the land value increments can/should be allocated among different institutional actors. Increases in land value are a complex mix of public and private actions with the public action including public investment in infrastructure and social services, changes in land use and land use regulations, and population growth and economic development. The practical challenge with land value increments is how to ascertain the proportion of the land value increment arising from public and private actions respectively. The author conducts an in-depth analysis of restructured land.
markets along the highways in the Pune region. He uses the framework of land value capture to analyze these changes in land and land-based social relations.


Paper reevaluates fiscal illusion in local public finance. The Ricardian equivalence theorem suggests that the financing of a public program using either taxation or debt shouldn't affect outcomes, because debt is capitalized into property values. In contrast, we show individuals may rationally prefer public debt if governments can borrow on more favorable terms. Using data from U.S. open space referenda, we find that households do prefer debt financing.


This article analyzes the effects of a land tax as applied in Pennsylvania. They find that the implementation of split rate taxes increases the capital/labor ratio and this the primary effect of the tax is in more housing units rather than bigger units. They interpret this to mean that the implementation of the split-rate tax increases the number of housing units and that these housing units are developed more densely.


The authors develop a concept paper on the economic valuation of land. The authors model develop an urban land sale procedure by optimizing the control of land instruments. This study asks about the expected consequences of increasing the tax rate on the land component of real estate while reducing the rate at which the improvement is taxed. The first part briefly presents the consequences that land taxes are expected to produce given our theoretical understanding of land markets. The consequences of moving from a general property tax to a land value tax in the Toronto and Ottawa regions are assessed by interviewing developers, planners and municipal finance officers.


This article discusses the history of land taxation in New Zealand and then applies generally accepted tax criteria in this situation. It compares a land tax to a capital gains tax and concludes that a national land tax has little to offer. However, it also argues that as a radical alternative to an income tax, a national land tax deserves greater consideration.

This dissertation (part of which is included in an article in Forest Research) investigates the effects of land value taxes on non-industrial private forests owners’ clear cutting and thinning decisions. The key contribution of the dissertation is that land value taxes affect only those forest-owners who value both timber production and forest amenity benefits. Conversely, the tax does not affect the decisions of those forest owners who clearly prefer either timber production or amenity benefits, which means that the tax is neutral. The research uses a utility maximizing farmland model that incorporates land value taxes. The numerical analysis shows that a voluntary tax regime with a lowered profit tax combined with a land value tax may bring a Pareto improvement to a regime with a profit tax and no land value tax.


This article analyzes the effects of both profit and land value taxes on the harvesting decisions of private forest owners. Utilizing a model of utility maximization of the forest owner who has amenity preferences for timber, it finds that with no amenity preference, profit and land value taxes are neutral with respect to clear-cutting and thinning decisions. It also finds that with small to medium amenity preferences, the total effect of the profit tax on the short run timber supply is negative, which contrasts with the effects of a land value tax. The analysis also finds that a combination of lowered profit tax rate combined with a land value tax is a Pareto-improvement over a tax system that uses a higher profit tax and no land value tax.


This thesis considers leasing as a way for financing infrastructure. In particular, a land readjustment technique is described. This is a technique in which land parcels are assembled, projects are implemented and then land is given back to the previous owners, but at a higher value. The paper describes part of this process as value capture. The paper also describes indirect methods for land acquisition, some of which are indirect value capture methods. Uses Nepal as a case study


The developed model features both endogenous and exogenous mobility across jurisdictions so it is possible to evaluate whether the different degree of mobility at the local vs. national level can justify different institutional restrictions. Preliminary results
show that pure land taxes have very beneficial incentive effects but can raise limited amounts of revenues


Article argues that it is the increase in land values that are responsible for the rise in property value. Notes that in Henry George’s time, land value maps were regarded as sound practice and commonly used. Since that time, because land and improvements have mostly been taxed at the same rate and because creating land value maps was expensive, they have fallen into decline. But with GIS, these maps can be created easily, cheaply and quickly. They could facilitate the wider implementation of land value taxation and make feasible the implementation of the tax.


This article analyzes the Georgist vision and economic development and notes that implicit in this vision is that humanity owns the world in common and is entrusted with its stewardship. The Georgist position is an expectation that those use the natural resources the most should compensate others. This compensation is economic rent. Since rents are socially rather than individually generated, they should be returned to government and therefore the recovery of rent is the proper source of finance for government services. Goes on to evaluate distributional effects and sprawl.


This article identifies conditions under which the “golden rule of local public finance” holds in a second-best world: first, if and only if the excess burden from adding another community (or changing community size) equals the fiscal surplus from doing so. The article shows that the excess burden can be expressed by an extended Harberger formula. Note that Discussion papers in this series are manuscripts in draft form and cannot be reproduced or distributed without written consent of the author.


This article examines the equilibrium and optimal resource allocations in a monocentric centrality that assumes monopolistic competition. The authors find that the Henry George Theorem (HGT) does not hold in that model because aggregate fixed costs are greater than aggregate land rents because of excess entry. Further, as the gap between aggregate land rents and aggregate fixed costs increases when commuting costs fall, the HGT is not likely to hold even approximately. Very technical.

This is an analysis of the various property tax proposals of Scottish political parties prior to the May 2011 election. It notes that the Green Party would replace both the Council Tax and the Uniform Business Rates with a land value tax. It cites the Mirrlees Review as endorsing this proposal, argues that a land value tax would not deter improvements to properties, and that it would also be an opportunity to unify business and personal property taxation. The paper also argues that a land value tax would deter individuals and companies from hoarding land. Report concludes by saying that a land value tax should be considered an option if the Scottish government revisits the issue of property taxation.


Accepting the premise that the appropriate value of land is the value of the site including streets, sewers, lighting and the general state of the development of the area (although not the structures on the specific site), and that land should be valued for tax purposes at its highest and best use, the authors discuss some of the concerns that must be addressed for accurate land valuation. In this chapter they examine how land values are actually determined for tax purposes, whether the use of different methodologies matters, review different approaches valuing land for tax purposes and then summarize several case studies on how jurisdictions actually value land. They then do an in-depth case study of Lucas County, Ohio.


This doctoral dissertation examines the effects of streetcar systems on a variety of community oriented variables. In terms of financing, it notes that recently transit systems are taking an active role with real estate development in joint ventures with the private sector in order to capture the value created by the transit system. Argues that to capture this value, planners need to achieve an appropriate mix of uses, densities and resolution of tensions. Studies Little Rock and Memphis.


The success of London’s Olympic bid is often explained in terms of its uniqueness in promising to deliver a lasting and inclusive legacy to a deprived part of East London. This paper questions whether mega-events such as the Olympic Games are the best vehicle for securing long-term housing benefits for deprived populations. The paper
argues that original plans overstated the potential housing legacy using this as a trump card to displace existing populations and win support for the bid. Over time there has been a weakening commitment to the provision of affordable housing legacy and social transformation for existing communities. It is argues that the housing legacy plans were essentially without foundation and based on the likelihood that private developers would develop schemes and affordable housing would be extracted through planning gain. At this point in the article, there is a discussion of value capture as a finance technique. However, planning gain has become increasingly inadequate in this regard and this paper raises more general questions about the inadequacy of existing tools in realizing value from large-scale projects.


This chapter first discusses an idealized vision of how an urban land governance system works. This is a vision that differs from the urban land governance reality, especially in the cities of sub-Saharan Africa. Many of the proposed elements of urban legal reform are premised on the assumptions that underpin this vision. This chapter proposes a pragmatic approach to achieving fundamental urban legal reform over time. In this chapter, urban land governance is a virtuous circle of land management to land value to land based tax revenue (value capture) to investment in municipal capacity to land management. This is where the circle breaks down.


South Africa’s property taxation and land value capture programs to finance housing and service land and infrastructure for the urban poor, are under-developed and insufficiently mainstreamed. This chapter asserts that the limited reach of land management policy, regulatory systems, and unregulated land and property markets contribute to inequality, poverty, marginalization, and spatial segregation. Municipalities do not optimize land value taxes and other land value capture mechanisms to finance pro-poor development. The Development Action Group (DAG) found that South Africa has a tax system that acts as a disincentive to the intensive use of land, encourages land speculation and contributes to urban sprawl.


This report notes that many actions undertaken by government also have the effect of increasing property values. Similar to the situation where there is a requirement for just compensation for “taking” private property for a public facility, these examples involve an increase in private property value as a result of a physical public improvement. In the
case of sewer and water services, the properties that benefit are generally the properties that pay for the facilities, therefore it can be said that no windfall exists. Similarly, in the case of the new interchange, if it is financed through a cost sharing arrangement with benefiting property owners or through fees on new development, there may not be a windfall. However, in the case of the regulatory action taken by the government, there is no provision for allowing the public to capture some of the windfall increase in property value. Remedies for these problems include value capture.


This funding toolkit is aimed at transport planning professionals within local authorities in the UK and attempts to provide practitioners with an overview of funding barriers, possible solutions and potential funding sources available to help finance and implement a variety of local transport schemes. It is divided into four main sections, plus appendices: an overview of the barriers to identifying and obtaining funding for transport and land use schemes; answers key questions relating to overcoming these barriers; identifies funding considerations by scheme type; discusses the role of partnerships as mechanisms to obtain, and effectively utilize and manage funding.


Examines the appropriate role played by taxes on land and real property. Notes that the design and implementation of such taxes are likely to differ in different countries and to change over time in any one country. Paper suggests that emerging countries should focus primarily on developing a sound local property tax rather than attempting to achieve broader land policy goals. The paper concludes by using the case of China to stress the need to pay much more attention to the quite different rural and urban situations in developing countries in designing and implementing land and property taxes.


Colombian law declares that the public through the municipal government can recapture up to 50 percent of increases in land values created by regulations and public actions using impact fees and land value capture taxes. In addition, the law states that developers should provide the needed infrastructure or pay the equivalent as an exaction. However, the implementation of this law has been very difficult. A survey conducted by the Colombian Real Estate Association about the Law of Urban Development of 1997 shows that 67 percent of developers think that it increased land values in Bogotá and 50 percent believe that it increased housing prices even though academic research has shown that the
new regulations have decreased land values by 23.7 percent on average. In addition, the municipality has made an important progress updating the cadastral base.


This chapter discusses a tax on land rents as a form of environmental protection. It argues that high land taxes encourage investment, development, and higher development density which leads to walkability. Further argues that taxing land parcels according to their market value fosters land use patterns that best suit the demands of the community as a whole. Then describes economic rent as when a resource that has a market price not created by human hands, and thus resource rent can be understood as socially created wealth and be construed as capitalized transportation costs. Claims that all taxes come out of rent.


A section of this dissertation analyzes the Japanese land value tax and its effects on land prices in Japan during the early 1990's.


This memorandum provides a summary of performance measurement to thoroughfare design. It proposes a structure for evaluating urban thoroughfare planning and design processes as well as the designs and outcomes. Examples of performance measures are included. It concludes with a proposed scope of work to complete a guide for using performance measures to assess the process and outcomes of urban thoroughfares designed using context sensitive solutions. It includes several performance measurements using value that is susceptible for value capture techniques.


Through an examination of the history of land value capture in the United Kingdom, this chapter explores how the nature of land property as articulated by law has affected the process of land value capture. The chapter also contrasts the British experience with the French experience. The approach is historical.

The author addresses the question of "if land value taxation is such a good idea, why haven't more jurisdictions adopted it." He asserts that the answer involves several issues, including the taxation of unrealized capital gains, land value assessments and rate settings, too much development, winners and losers, and lack of understanding. The author addresses these points and determines that while land value taxation is more difficult to implement than the standard property tax, the additional effort required may well worth it.


This chapter reviews the adoption of land value taxation in U.S. jurisdictions, considers why the tax has been discontinued in several of the jurisdictions, and discusses the ongoing support for land value taxation in other locations, including efforts to adopt it in Philadelphia.


This is a study on why homeownership rates are so high in Taiwan (approximately 88 percent). Concludes that the high rate of ownership primarily is the result of the low user cost of owner-occupied housing. The article notes that the nominal land value tax rate for owner occupied housing is one-fifth of that rate that is normally applied to other land uses. The article also notes that homeowners when they sell their houses, pay a tax on the appreciation of assessed land value. However, this tax is low. The article recommends that increasing the portion of the property tax applied to land.


England and Zhao (2005, NTJ) report that changing the Dover, New Hampshire, property tax to one taxing land more heavily than improvements would increase the tax on single-family residences and changes across residences would be regressive. We replicate their analysis for Roanoke, Virginia, with results opposite those for Dover. We extend the Roanoke analysis beyond England and Zhao by linking property tax changes to income and poverty data for census tracts; the resulting tax change would benefit most those areas with lowest incomes and highest poverty rates. Thus, both approaches for Roanoke show initial tax burden changes to be progressive.

This MPP thesis finds that access to public transit in Vancouver varies widely although the system is financed by a uniform property tax. The author finds that transit benefits are incorporated into property values under some conditions, but not under others. The author suggests that there is a case for varying the property tax rate among municipalities and proposes value capture financing policies such that those areas that accrue future benefits from transit expansion commit to a greater proportion of costs required to fund those expansions. He then examines land value taxes, area benefiting taxes and tax increment financing. Concludes that the land value tax would be administratively complex and harmful to vertical equity and ultimately rejects it in favor of the other two alternatives.


This report takes a wide-ranging look at Indiana’s transportation infrastructure needs through five sections. Section 1 provides an overview through a national lens. Section 2 explores some of the recommended actions states can take: adopting fix-it-first policies and prioritizing investments through State Infrastructure Banks. This section includes value capture as a mechanism for funding an infrastructure bank. Section 3 details the status of Indiana’s infrastructure. Section 4 investigates the link between investing in transportation and economic development, and Section 5 discusses various methods for financing transportation, with a brief description of the commission Indiana recently established to look into the issue.


This article might be an example of a reverse value capture argument, applied to coastal zones. Today, local governments benefit from coastal development because it expands the local tax base and increases tourism and employment. Private landowners benefit from development through increased property values. With high property values and tax revenues at stake, coastal communities have strong incentives to protect property. This Comment asserts that one approach governments may use to minimize coastal costs is to withdraw basic services like utilities and road repair projects from coastal communities. The question then is if the government refused to rebuild a coastal community's infrastructure would property owners be entitled to compensation for a "taking" of their property under either the Fifth or Fourteenth Amendments? This Comment concludes that the government can change its coastal community public policy without compensating landowners.
This literature review attempts to capture some of the most important issues with regard to the question of the poor’s access to urban land. There is a section on capturing unearned value to assist markets to work for the poor. These unearned increases in land value are brought about by government interventions such as changes in land use regulations, provision of infrastructure to a parcel of land, and growth of the population which creates a demand for land thereby increasing the price of land. It is thus only fair that the community as a whole shares in the increase in land value. The utilization of mechanisms to capture unearned land value can provide additional resources. These value capture mechanisms can also assist in addressing unfair land market practices such as speculation. The three value capture mechanisms examined in this review are the land value tax, land banking and land pooling/land readjustment.

The issue of land is a critical one in post-Apartheid South Africa. The operation of the urban land market has been identified as a significant obstacle preventing the urban poor from accessing affordable land. A Brazilian case study provides an example of a more progressive approach as it combines social policy and legal reform to regulate the use of urban and to ensure that land fulfills its social function. This paper discusses the Brazilian case and argues that the progressive taxation of vacant land in cities could be a potentially valuable policy instrument in South African cities.

This paper argues that in light of the South African government's current infrastructure drive and the significant amount of public resources being spent on transport infrastructure upgrades, it is an opportune time to consider the impact of transport infrastructure investment in particular on land value and how this value can be captured to finance the provision of infrastructure at local level.

This paper presents a strategy for scaling climate change adaptation within urban areas. The strategy specifically focuses on the requirements for mobilizing large amounts of capital for adaptation (including value capture techniques) and other urban risk reduction above and beyond the amounts that will likely be mobilized through new international adaptation funds. The approach shifts the adaptation focus from risk reduction as a primary end in itself to a broader development focus on financing the performance of


urban assets, areas and/or systems. This emphasis is elaborated through the concept of resilience.


This dissertation focuses on canal oriented development (COD), which is based on transit oriented development guidelines. One of these guidelines is a value capture/financial return. This means that the COD must create economic and financial value for all parties—developers, households and the community. These values would vary. Somewhat confusing on value gains and value capture.


This is an unpublished first draft of a detailed discussion of financing inclusionary housing in Spain through the process of value recapture (plusvalias). It has a particular emphasis on instruments utilized to recapture increments in land value. Detailed case studies of policies in Catalonia, Barcelona, and Galicia regions are presented. Paper argues that the Spanish Constitution mandates some sort of recapture of increments. Inclusionary housing is one of the mechanisms for this recapture. Another implication is that land can now be expropriated at existing use value.


This article discusses Gustav Cassel’s advocacy of an incremental land value tax in the early 1900’s. It is also available as an SSRN paper http://ssrn.com/abstract=2253488


Bus rapid transit (BRT) has gained popularity as a cost-effective alternative to urban rail investments; however, relatively little is known about its impacts on land-use changes and land values. This paper examines the land-market effects of converting regular bus operations to median-lane bus services in Seoul, Korea. Multilevel models reveal BRT improvements prompted property owners to convert single-family residences to higher density apartments and condominiums. Land price premiums of up to 10% were estimated for residences within 300 meters of BRT stops and more than 25% for retail and other non-residential uses over a smaller impact zone of 150 meters. The research findings underscore the importance of introducing zoning and other land regulatory changes prior to the initiation of BRT improvements as well as applying value-capture tools to help finance investments and redress inequities.

Hong Kong has aggressively pursued value capture to finance railway infrastructure through its 'Rail + Property' development program (R+P), with now more than half of all income to the railway operators coming from property development. Most R+P projects focus on housing although all have some commercial development. With an increased emphasis on pedestrian quality, this research shows increased ridership and housing prices. An R+P station with a transit-oriented design averages 35,000 additional weekday passengers and housing price premiums in the range of 5–30 per cent were found. The article suggests that Hong Kong’s R+P model is well suited for financing rail infrastructure and in the rapidly growing cities of mainland China.


Huge capital costs remain an obstacle to the construction of a new light rail system. For this reason, cities in the planning phases of LRT want to use value capture tools to finance transit construction and operation. In theory, any improvement in a transportation structure that increases accessibility and reduces transportation cost can be capitalized into property values in an area. In turn, governments levy taxes on a portion of the additional value of adjacent properties. This study, however, aims to empirically examine whether value capture is possible in the recession when property and land values continue to decrease. The study uses the case of the DART Green Line (in Austin, Texas), which started to run in 2009 just after a financial crisis in the U.S. The 5745 residential parcels are analyzed with using a hedonic price model in order to detect the Green Line’s influence on residential values before and after the recession.


In this paper past studies on the effect of transit improvements on property prices in developing countries are reviewed, and the hedonic models are developed to examine this relationship in Bangkok, Thailand. Spatial regression models are estimated with data on multifamily residential properties near the Bangkok transit system's stations. Estimation results show that the premium of transit accessibility is approximately $10 for every meter closer to a station, and the price elasticity with respect to the distance to the nearest station is roughly -0.09. The substantial premium of transit accessibility implies that there is potential for the use of value capture policies for investments in Bangkok's transit system.

This is an empirical study examining ex-ante self-assessment of property value of land in Taiwan from 1954-1977. Study finds that most landowners reported self-assessments at below market value mainly because the condemnation probabilities were much lower than the property tax rates. A land value increment tax (a variety of value capture) is also discussed. Article provides details of the tax, including implementation and enforcement.


This article examines different ways of funding public infrastructure. The land value tax is one of the 17 ways discussed.


This paper closely examines the use of tax increment financing (TIF) as a type of land value capture. After describing the steps in implementing a TIF district, the article examines the effects of its use, including its impact on redevelopment, new economic development, and on other jurisdictions.


Using the Mills’ model, this article demonstrates that even if there are errors in the assessment of land, a land value tax, in the worst case, will have no more distortion effects of a single rate property tax. The article also demonstrates that levying taxes based on land values assessed with error is equivalent to using one tax rate on the true value of land and a different tax rate on capital.


In this paper, the background section briefly locates land use management (LUM) within broader land and planning activities. The paper then describes the rationality and nature of the current LUM approach in South Africa. The third section discusses a number of key issues and elaborates on the consequences of these issues. Among its findings is that the City of Johannesburg (CoJ) has made some efforts to positively influence the property market, by highlighting development opportunities in strategic areas and offering financial incentives. This has occurred through land identification, packaging and planning at Gautrain stations, strategic projects managed by the Johannesburg Development Agency, as well as through the tax incentives offered in the Urban Development Zones. Property development in these areas, however, has largely targeted
its attention on higher-income residents rather than the poor. Generally, the CoJ has been slow to consider innovative ways of obtaining value from developments for the higher end of the market.


Because traditional transportation financing is no longer able to meet new transportation financing requirements, an innovative transportation financing program is called for. Value capture is one of these techniques. Innovative funding sources will contribute more to delivering transportation projects, but traditional funding sources will remain dominant in the years to come due to their stable revenue sources.


The English Government has been seeking to reform its planning rules. The current system involves: A hierarchy of planning policies Section 106 (S106) as the main means of local value capture, complemented in 2010 by the Community Infrastructure Levy. The report also discusses the main elements of the National Planning Policy Framework (NPPF), published in March 2012. In parallel with the NPPF, the Government has also introduced: a reformed Community Infrastructure Levy as the main means of value capture, while limiting use of S106; financial incentives for new housing and for commercial development; and a Localism Bill and wider proposals for reforming local government finance.


Describes the case for taxing the unimproved value of agricultural land and concludes that it is strong as long as it is not the only tax used. Argues that it takes away one of the disadvantages that small farmers have vis a vis large farmers, but will not remove all of them. Also discusses administrative problems and concludes that they are solvable. Compares South Africa (which has a combined property tax) and Namibia which taxes only the value of unimproved rural land and concludes that Namibia has done remarkable well.


This article simulates the impact of the effects of a move to a two-rate property tax on residential density in Nashville-Davidson County, Tennessee. It finds that when land
taxes are proportionately higher than taxes on structures, there are marked density increases.


This article evaluates using a land tax as a policy tool to moderate urban sprawl. It develops a development model to evaluate a hypothesis that a land value tax encourages more development closer to areas of existing development that an observed property tax system model suggests that land value taxation can be used to design compact development strategies. Model is applied to Nashville Tennessee.


This article examines the potential use of a two rate property tax, with different tax rates on land and structures as a vehicle to promote open space conservation. Uses a general equilibrium model with Tennessee parameters. With a revenue neutral tax change the authors found that this change might be useful for mitigating the potential negative effects of sprawl by encouraging open space preservation. Uses a spatial autoregressive model.


This book provides a comprehensive overview of financial instruments and investment strategies being implemented throughout OECD Member and non-Member countries. It highlights effective tools, explores the roles and responsibilities of governments, public agencies and inter-governmental organizations. The lessons from this book are essential reading for policy makers, practitioners and all actors involved in delivering local development. Chapter 2 is an extensive review of value added literature with international examples.


This is an in-depth review of Phillip J. Bryson"s book: The Economics of Henry George: History's Rehabilitation of America's Greatest Early Economist (2011).


This article proposes to improve the VAT treatment of housing in the EU. It proposes the taxation of the difference between the selling and purchase process, net of subsequent renovations—which are assumed to be capitalized into the property value. Notes that the
VATs in various EU member states can be improved by limiting the exemption for all used immobile property to housing and then by taxing land and applying the standard rate more widely. The article goes into excruciating detail how this should be administered.


This article examines the Estonian economy which has been characterized by increases in real estate prices, which were possibly speculative. In 1993, a land value tax was implemented, but estimated only in 2001. This article attempts to discover if a more rigorous implementation of the land tax would have lessened speculative behavior. The authors conclude that it would have.


Analyzing the Estonian economy, this paper finds that it was highly leveraged and characterized by increases in real estate prices, having the pattern of a speculative bubble. The authors note that a land value tax was implemented in Estonia in 1993 and after 1996 it was an entirely local tax. They find that if land is evaluated each year, the tax is capitalized with a higher rate than in the case of the single evaluation model. They conclude that if the land tax had been correctly implemented, it would have been a valuable mechanism against the real estate speculation bubble.


Case studies for new towns planning in the United Kingdom. In at least one of the towns, the governance committee was to use the surplus tax revenues generated from the increased value of land to help provide the infrastructure necessary for further development. At the heart of the policy was that community sustainability would occur because of rising land values. Receipts would come in that would fund physical infrastructure and social facilities. The article finds that developers don't like affordable housing because it reduces land value. Yet the developers resisted providing the infrastructure that increased land values would have financed.


This chapter address the legal issues the implementation of a land tax in the United States would face. It notes that property taxes are governed primarily by state law, which varies from state to state. The chapter focuses on state constitutional provisions with accompanying case laws. It concludes that a land tax as well as differential valuation of land, would run into serious legal challenges in a large number of jurisdictions, typically in the categories of uniformity, equality, and proportionality provisions. May very well
need state constitutional amendments. Includes a table of cases as well as a table listing state restrictions.


Airports likely affect the value of many resources, including land. We explore the relationship between airport infrastructure and residential land prices in Denver and Atlanta. We use an innovative approach—Local Polynomial Regressions—to separate the value of land from the value of structures at each locally sold property address, and then estimate the impacts of changes in airport infrastructure improvements on land values. In Denver, we find investments in airfields, parking, and intermodal transportation lead to higher land values in the short-run and long-run, while investments in terminals generally have no significant impact or a negative impact (due to congestion) on land values. Due in part to less instability in land prices over the period 2003–2010, these results suggest Denver appears to be the stronger candidate for land value capture than Atlanta.


Congestion at airports imposes large costs on airlines and their passengers. This paper explores how a specific market-based proposal by the Federal Aviation Administration (FAA), which includes the use of auctions to determine the right to arrive or depart in a specific time interval at airports in the New York City area, might be used as part of a strategy to mitigate delays and congestion. The basics of the proposed auction process, known as a combinatorial auction, and value capture are explained.


Provided that independent land valuations are performed on all properties, a betterment tax can be levied to fund public infrastructure and amenity investments under certain circumstances. A flat rate land tax is one possibility, however, that option taxes pre-investment land values unrelated to the specific investment. An alternative is an incremental land tax that taxes only the uplift in values due to the new infrastructure or amenity. Article shows that under certain conditions, a project can be fully financed from the incremental betterment tax while leaving some value uplift available for local landowners. The, use of a land tax has favorable efficiency properties relative to other taxation or funding options. A capital gains tax is another option and the authors demonstrate the equivalence of the two taxes in terms of raising revenues.

There is little international (or New Zealand) evidence regarding the distributional impacts of land and property taxes. Nor is there much New Zealand evidence on their potential fiscal implications or about the taxes’ impacts on asset values and debt positions. Using both partial and general equilibrium models, the authors explore impacts that may arise from the imposition of land and property taxes in New Zealand.


This paper analyzes the feasibility of a Site Value Tax (which is a Land Value tax) in Ireland. It notes the practical difficulties associated with site value taxes and then submits proposals for implementation and administration which are designed to overcome the difficulties and introduce a credible, fair and reliable site value tax. Some empirical work using the land registry data base of Ireland.


Currently, Agricultural Land Reserve designated lands in southwest British Columbia are under threat from urban expansion and other non-agricultural uses. The paper identifies here are five factors for this. It then proposes solutions some of which are based on value added concept, with value added coming from rezoning of some of the land.


In the Greater Vancouver region (Canada) tensions exist where urbanization encroaches onto agricultural land. A recently issued white paper proffered ideas to stimulate discussion on land-use plans and public policies to encourage and enhance agriculture while accommodating a doubling of the region's population. It evoked a visceral response from local and regional politicians and planners. One tool suggested to ameliorate some of the problems is the use of value capture to generate endowment for Community Trust Farming.


Relates equity partnerships to LLPs and then to value capture financing. Gives numerical example of how this works.

This chapter argues that holding costs of vacant land are low under a single-rate property tax system and that the land portion of a split rate tax helps to discourage speculation because the higher land tax increases these holding costs. The split rate system encourages landowners to develop property to take advantage of existing public infrastructure. Once land speculation is reduced, then land values are largely determined by the proximity of public infrastructure. (note: assumes existing public infrastructure so this is not a value capture argument.)


This article investigates, through simulation, the argument that taxation reduces risk and this can increase the demand for the taxed commodity. If this is true, than a land tax may not be completely neutral. Simulating the risk impacts of a land tax, they find that land has a much higher return but much more risk than housing; many households receive positive utility from the extra risk associated with housing, and thus, the aggregate effect of the risk adjustments are minimal.


Planning gain is a way for Local Planning Authorities (LPAs) to extract development value from landowners via developers and of using the proceeds for local needs. It is thus synonymous with taxing betterment. This paper examines the theoretical and policy underpinnings of planning gain. It describes the growth in the number of new affordable, including intermediate, homes delivered through planning gain, the variations between planning authorities in the incidence of planning gain and the value of the contributions developers make.


After describing state land trusts in the west and explaining the process and limitations to gaining how value, the authors note that value capture on state trust land has the potential to generate two benefits: increased revenue for the public beneficiaries of the trust and the value of orderly development to local jurisdictions. The chapter explores both the opportunities and limitations of value capture on state trust land, describes recent experiments to capture higher value from trust land and suggests reforms that would enable greater returns to trust beneficiaries. It also describes some innovative approaches through a discussion of case studies.

This is entirely in French. Google Scholar indicates that it has a section on using a value capture tax for financing beach nourishment projects.


This paper reviews the challenges facing mass transit today and the strategies that can address these challenges. Then, from an extensive literature review and interviews with transit officials, the paper identifies the benefits and challenges to joint development to illustrate the opportunities and obstacles of implementing these type of projects. The centerpiece of the research is a case study of a recent joint development project in Chicago. The paper identifies funding as the biggest challenge facing mass transit systems and identifies value capture as a funding tool than can be used. Value capture questions are in interview guide for transit officials.


This Master’s thesis address the problem of parking lot density in many downtowns. It proposes a re-engineering of the current property tax structure into a land value tax. It hypothesizes that a land value tax will free the land and allow additional building construction and increase density, as well as generating revenue. It then simulates a land value tax in downtown Knoxville, TN.


In this report, discussing Scotland, one of the questions addressed is whether there is a realistic possibility of generating new tax income from wealth, land and property taxes. The report argues that a land value tax is fair and efficient, and can be used to redistribute socially created wealth (which results from increase in land values) away from landlords who “unfairly” appropriate wealth created by others. The report states that base land values come from the community through infrastructure, utilities and other external public and private developments. Thus, a land value tax is more accurately described as the recovery of economic rent. The report claims that land value taxes are not popular because landowners are powerful political voices that lobby against a new tax that imposes a windfall loss on them. Concludes that there is also a strong case, in the longer term, for a shift from property taxes to land value taxes and where possible from taxes on income to taxes on wealth.

This PowerPoint presentation argues that taxing away the capital gains on rising land values removes the incentive for speculative property bubbles, that site values depend on closeness to a variety of infrastructure that enables landowners to charges for advantages to a site that are created by others, and, a land value tax will prevent community economic development from landowner parasitism. Also argues that it would stabilize the political system by removing the incentive for corrupt political involvement in land speculation.


This paper (which will be a chapter in a forthcoming book) discusses how value is created through the concept of a “cognitive-cultural economy (CCE)”. CCE examines the economic as well as social significance if a group of industries, work tasks, occupations and functions exist in the core metropolitan areas. This creates value through innovation, and in the cultural sector through “soft innovation.” Although only mentioned once, it does note that value capture is dimension of this concept. Some application to the Toronto film Festival.


This chapter analyzes how the potential gains that come from readjusting land can be made available to municipal governments in Germany. The chapter discusses the steps in land readjustment (which is consolidation in this context). Also examines the German law, especially in relation to eminent domain.


Despite economic growth, institutional strengthening, improved regulatory frameworks for urban land markets and availability of subsidized financial resources for social housing, Brazilian urban development policy has continued to face challenges in providing access to housing for low-income groups. The authors argue that state spatial policies have been severely weakened by the lack of leverage over urban land markets By and large, most cities do not apply instruments of land value capture. The application of the statute is cumbersome, since it evolves as a function of the political construction of the local scale and urban space.


This paper describes the serious fiscal crisis faced by cities around the world following the Great Recession of 2008. Section 3 discusses longer term strategies to ensure the
financial, social and environmental sustainability of cities. As part of this section, value capture is analyzed as a finance technique that allows governments to finance urban renewal projects by internalizing the (future) positive externalities generated by these investments. This practice has had success in London, Barcelona, Istanbul, Berlin, Hamburg, and Copenhagen for projects ranging from sports stadiums to row houses to metro development.


This working paper argues that value capture finance is similar to TIFs since it allows governments to finance urban renewal projects by internalizing the future positive externalities that are generated by the projects. Notes several cities have had successes doing this.


This research explores whether announcement of plans to build mass transit infrastructure had an effect on housing prices in Ecatepec, a fully urbanized municipality in the northeastern fringe of the Mexico City metropolitan area. The analysis compares prices of properties located within one kilometer of the future bus rapid transit (BRT) corridor with those of properties sold within the same distance of a similar corridor where no mass transit was slated to run. The results contradict the hypothesis that transit project plans trigger an immediate windfall for property owners who capitalize on the expected benefits of enhanced accessibility before the start of operations. Instead, the mass transit plan appears to have had no impact on prices of lower-quality properties and in fact reduce rather than increase the prices of higher-quality properties. Thus, the issue of value-capture alternatives to finance infrastructure needs further exploration.


Risk-sensitive land use planning is vital for sustainable economic development and effective disaster risk management (DRM). Many East Asia and the Pacific countries have national land use policy and local plans which incorporate risk assessments; however, they typically lack the means for their implementation. Facing these constraints, local governments are attracted to economic instruments, such as land value capture (LVC), to leverage finances. Paper identifies challenges and potential benefits of LVC tools. Among a wide array of LVC tools, land readjustment and transfer of development rights are particularly relevant as they can spatially direct urban development away from disaster risks. This note introduces their potential for DRM as seen in their application in Brazil, India, Japan, and the US.

The focus in this study is to understand the role that the built environment can play in sustainable metropolitan growth. It utilizes spatially detailed administrative data to calibrate urban models and support metropolitan planning. In this dissertation’s third essay, the role that selectivity and spatial autocorrelation could play in valuing the built environment is analyzed. This information can help estimate the property-value effects of land use change, and quantify the impacts of smart-growth policies on a neighborhood. The empirical results suggest that the built environment can influence both the probability of sale and transaction price of properties. Failing to correct for sample selection and spatial autocorrelation leads to significant bias in valuing the built environment. The bias might misguide policy recommendations for intervening urban development patterns and distort estimations of the value-added effect of infrastructure investment for land-value-capture programs.


This article examines approaches for reclaiming difficult brownfield sites using an agency based framework. Ten cases studies, set in Manchester UK and Osaka Japan are used as examples. The authors conclude that these hardcore brownfields can be regenerated if there are strong potential markets, long term vision, strong branding, strong partnerships, integrated development and adequate infrastructure in place.


This report argues that a new form of British capitalism, based on greater collaboration between the state and the private sector, is needed to address British economic problems. The section addressing additional tax revenues discusses land value taxation. The report addresses how it would work, how it would stabilize future fluctuations in housing prices and how it would help to rebalance the economy by encouraging moves away from receiving income through owning property to earning income. It also notes several reasons why it would be difficult to implement, but believes that these problems are solvable. Concludes that it must be given serious consideration.


This book discusses the history of Fairhope, Alabama, which was founded in 1894 as an experiment in communal living. The town's was financed by a single land tax. The book
claims that the town became the world's oldest and most successful single-tax colony. Reached its peak in the 1920's.


The Green Paper on Urban Transport highlights the importance of promoting public transport as a means of achieving better sustainable mobility. Unfortunately, budget resources are often constrained. On the other hand, literature points out that transport infrastructure induce economic impacts in the areas where they are placed. This effect is caused by the fact that people realize the positive effects of accessibility and want to live or work close to transport stations. Regarding this fact a question arises: is it possible to capture the value induced by the construction of a new infrastructure facility as an additional financial source. The aim of this paper is to analyze different direct and indirect mechanisms of value capture to fund transport infrastructure.


This is a chapter in a book concerned about poverty, inequality and injustice. One of the author’s recommendations is a land value tax. The author claims at a land value tax of 7p per square meter would eliminate the UK national debt. This tax is so small that the vast majority of people would not notice it. If it were raised to 10p a square meter the Council tax could be abolished. Those that can't pay, could sell a small portion of the land to pay the tax. it also notes that land is very hard to hide.


This study is concerned with the relationship between transport accessibility and increases in land value. Focusing on residential land, land value is examined through the form of house prices, using the Tyne and Wear Region of the UK as a case study. The study uses a relatively new technique, Geographically Weighted Regression (GWR), which addresses the issue of spatial effects. By embodying spatial coordinates into the traditional global regression model, GWR provides a set of local estimates using a weighted least squares process. This study identifies that the relationship between transport accessibility and land value varies over space. This suggests that a land value capture policy must take into account this lack of homogeneity and that the application of a uniform ‘tax’ would be inappropriate.

This study focuses on the impact of the Tyne and Wear Metro, a light rail system, using a Geographically Weighted Regression (GWR) model with property prices as the dependent variable which is then explained by independent variables designed to standardize for household features as well as some spatially defined factors including the transport accessibility of the house location. The results from the global regression model (equivalent to a hedonic model) show that the internal factors of the property and socio-economic classification of its location are the dominant determinants of property prices while transport accessibility variables, as key components of property location reflecting land value, are also significant in determining property prices.


The impact of public transportation on location rent remain poorly known. However, there is a strong connection between public transportation infrastructure and real estate markets. This paper aims at estimating the actual effect of implementing a commuter train service between a major city (Montreal, Canada) and its southern periphery occurring in 2000–2003. Using a difference-in-differences (DID) estimator in the hedonic price model, the paper estimates the direct marginal price impact of a new commuter train service following changes in access to stations. Results suggest that the opening of a new commuter train service on the Montreal South Shore generates a location premium for houses located in the stations’ vicinity as opposed to houses that do not experience any improvement in accessibility to the commuter train service. In addition, the new service raises property tax income for involved municipalities by eleven million dollars a year through enhanced property values.


This report has some data on land taxes in Japan in the context of a quantitative methodology that investigates the relationship among tax revenue, government expenditure, and GDP. Applies unit root and stationary tests. makes policy recommendations for Vietnam.


This report examines barriers to integrating land use and transport projects in New Zealand. It identifies several necessary components for urban development planning, including commercial feasibility analysis. In this area, the outcomes for joint public-
private partnerships should include increased land values. It identifies a difficulty, with respect to land ownership, as to whether privately owned land around stations should be sold to private interests to realize the value gains associated with a TOD. Another issue identified is that of cash-flow impacts when the value is not immediately realized. There are two case studies of value capture (Portland and Chicago). Notes that New Zealand does not currently have value-uplift schemes.


This dissertation provides a detailed quantitative analysis of the effect that rail transit stations have on housing property values in San Diego, CA. The findings illustrates that the capitalization benefits vary depending on a property’s attributes and location within a region. Monetized capitalization benefits indicate the potential for value capture to tax properties around stations to recoup some of the value provided to a parcel by station proximity. Large capitalization benefits would indicate the potential to tap into large source of extra revenue.


This book contains nine chapters and a forward that address issues of land taxation. The individual chapters are included in this bibliography.


This introductory chapter describes the analysis of the other chapter authors. It concludes that a land value tax is potentially feasible, that proposals to implement a land value tax will be controversial and will generate opposition, and that there are constitutional, statutory or administrative problems that must be confronted before a land value tax can be successfully implemented.


This Lincoln Policy Focus Report describes land value taxation, including a discussion of efficiency, distributional, and land use effects. It argues that there is strong theoretical support for this type of taxation and in particular, reducing the tax on real estate improvement. It does note that the empirical evidence for some of the theoretical propositions is inconclusive. The report recommends several features to be considered when introducing a land value tax.

This research attempts to estimate the increased value of land in the form of house prices as a result of improved accessibility owing to the construction of Light Rail Transit (LRT) systems. The Kelana Jaya Line LRT system is chosen as the case study. Hedonic house price modelling and Geographically Weighted Regression (GWR) are employed to measure the effects of the LRT system on house prices in the Klang Valley, Malaysia. Results show a positive relationship between the existence of the LRT system and house prices. The research findings provide justification for potential implementation of a Land Value Capture (LVC) policy. Strategies in a LVC policy that may be implemented include property and sales taxes, real estate lease and sales revenues, fare-box revenues, fees on everything from parking to business licenses, joint development, tax increment financing, special assessment districts, equity participation and public-private partnership.


This study investigates the increased value of land in the form of house prices as a result of improved accessibility to a Light Rail Transit (LRT) systems. Kelana Jaya Line LRT system is chosen as the case study in this research. The results show a positive relationship between the existence of the LRT system and house prices. The introduction of new transport infrastructures such as an LRT system to improve the accessibility of city centers for those living in residential areas could also bring indirect benefits to the local area because it can uplift land value for those areas that have been served by the system. Additionally, the research findings provide justification for the potential implementation of a Land Value Capture (LVC) policy. But, a LVC policy need to be carefully implemented and the premium associated with the rail transit systems on land values/house prices should be well estimated beforehand.


This describes the historical period in which George lived and how it influenced his writings.

Demonstrates how 3D visualization can be used to better estimate land and property values, thereby helping to more precisely estimate value capture charges.


Taxes levied on the value of land—land value taxation—would lead to an internalization of external costs imposed by the development of land, and would discourage urban sprawl. Moreover, earmarking the tax receipts for the funding of the transport infrastructure that leads to an increase in the land value in a given area (“land value capture”) can contribute to solving the problem of funding infrastructure. However, empirical European research on this topic is rather scarce and the implementation of land value taxation could meet political resistance. Open research questions remain concerning methodological aspects and questions regarding the instrument’s implementation. Additional research should be undertaken on how land value capture and PPPs could be optimally combined, as the use of land value capture could significantly decrease the revenue risk in the case of a PPP project.


This review article examines three national level tax reform commissions and their recommendations: the Henry Commission for Australia, the Mirrlees Review for the United Kingdom, and the TWG Review for New Zealand. All three of the reviews advocate a land tax as part of the system. It also makes observations concerning the political process.


This chapter examines both the purposes of land value taxation and the benefits to the general public that occur by its capturing increases in land value. It examines two approaches: public or communal ownership of land with structures available only through leaseholds and imposing requirements on developers and owners within specific project areas in return for government assistance. It concludes that only through public ownership and only under certain conditions, can Henry George's equity desires be recognized.


The focus of the present work is on the planning practices used in Italy and England to deal with the question of betterment value in trying to capture a portion of betterment
created by development of land. The relevant literature refers to various attempts to tax the increase in the value of land to the currently used negotiation-based mechanisms, based on the transfer of development rights. Betterment value can be described as the increase in the value of land determined by changes in planning decisions which determine the rise in the value of land. Other forms of betterment deriving for example from infrastructure improvements, or provision of new services are not taken into consideration for the major part of this work.


Data on the role of the land tax are included in this paper.


(from abstract only; article only in Chinese) China’s land taxation system comes from Sun Yat-Sen’s proposition that the land value increment should go to the public. This led to a comprehensive land value taxation system that serves as a reference for the reform of land system and land taxation in today’s China


A general discussion of Toronto's land use planning. Has a section on value capture to finance transit oriented development. Recommends a new policy to investigate the feasibility of a City-led land-value capture investment strategy to fund transportation infrastructure expansions.


The transfer of Development Rights as land value capture tools are potential approaches for finance. There are mainly two approaches: 1. Additional Development Rights (ADR) and 2. Transfer of Development Rights (TDR). In case of land acquisition for creation of public infrastructure the owner of the land can be issued development rights in form which can be used in the predefined destination zone which may or may not be at the same location as the original plot. This has been tried in Mumbai.


This report examines local housing market volatility in the UK. There is a discussion of planning gains, and the report argues that the value created through the granting of
planning permission should be captured for the benefit of communities in which housing market pressures arise. The impact of ‘spreading’ value capture across a wider area should be carefully considered in local contexts to ensure that it brings maximal benefits in terms of tackling local market volatility. The report finds that the issue of local housing market volatility remains a serious one.


Describes the mechanisms to help planned development in two UK towns. One of these is a “roof tax” designed to collect funds for infrastructure. Different levels of charges would be applied to land with different values. As values rose because of the impacts of public and private sector investments, there would be additional contributions. Affordable housing was not included in this. Developers describe these contributions as being paid out of land values. One conclusion of paper is that more transparency as to this process needs to be made


Brief review of inclusionary zoning as a type of value capture strategy.


This report includes proposing a land tax as part of a bundle of “green” tax shifts. In one of its options, it concludes that increases in green taxes to mitigate environmental problems along with a land tax of 9.6 percent on land only would simplify taxes with a single tax on nature and none on income, sales or any other productive activity. It would also generate about $500 million of additional tax revenue.


Developed economies have generally ignored the warnings provided by overheating housing markets—in most cases to their considerable cost—or have attempted to control them by raising general interest rates. It might instead be better to tax away the artificial gains that have been created, as a form of value capture similar to that already applied to new lots at the periphery. Extending the capital gains tax to cover owner-occupied housing, as a form of value capture due to gains that have been created by government actions, and restoring real net capital gains to full parity with other income would give the market very considerable pause—although taxation of gains has not stopped investors
from jumping into the established market in a big way. These capital gains taxes could be used to improve affordable housing supply in a variety of ways.


This sustainable design Master’s thesis describes how a two-rate tax, with land being taxed more heavily, could work to influence the provision of affordable housing in Phoenix. Some interviews with developers are included.


The main objective of this thesis is to assess the performance of two financial instruments: public land leasing and property taxation on how they can capture land values to finance roads infrastructure. The assessment is geared to find out (a) whether the instruments capture the value of land (b) how far revenue generated by these instruments can contribute to the roads infrastructure investments and (c) the impact of roads infrastructure to land value increments. The area of study was Mbeya city in Tanzania.


This chapter examines the international use of land value taxation through case studies of five counties: Australia, New Zealand, Jamaica, South Africa and Estonia. It also carefully distinguishes between unimproved land value and land value (site value).


General discussion of local government revenues, with an international focus. Some discussion of value capture to finance local investment; gives a five step approach.


This (long) paper presents a more comprehensive and accurate measures of land rents and values and explains how sixteen elements of land's taxable capacity that have not been accurately disused in the literature. Included are corrections for downward bias in standard land measurements, broadening of the concepts of land and land rents, the
estimating of rents gained with the abatement of other taxes, and how land taxes can be uncapped without excess burden.


In the United Kingdom, the use of hypothecation of local taxes and charges to fund urban transit, a proven method in the United States, Canada and Europe, has progressed extremely slowly. Given the proven linkage between transport infrastructure investment and increase in land values, there is an economic justification for all beneficiaries to contribute towards funding a scheme through a form of a land value capture mechanism. In the UK however this has traditionally been a difficult principle to effect in practice. The aim of the paper is to examine the debate around the use of Hypothecation to fund urban transit schemes. The paper will specifically consider the proposals to fund the southern extension of London Underground's Northern line to Nine Elms and Battersea, which has been proposed as a pilot project for Tax Incremental Financing (TIF).


This Master's thesis has some data on the land tax in China


The paper focuses on the concept of betterment off-set for the amount of compensation with the analysis from the Polish point of view. In the first part of the paper a definition of the term “betterment off-setting” is presented and evaluated. The Polish approach to betterment in the context of compensation provisions is discussed. On the basis of such examination the paper presents the fairest method of recapturing the enhanced value of land. In this optimal method recapturing provisions should be separated from the expropriation provisions. The development agreement supported by development contribution seems to serve as the main tool of recapturing. The method discussed resolves also the problem of a public project (ex. subway) increasing the value of not only the land adjacent to the acquired land but also of the further parcels.


This chapter discusses adjacency levies in Poland, which are based on ad valorem formulas. Explains how adjacency levies are an appropriate tool for private participation in the costs of providing local public infrastructure. It also distinguishes between adjacency levies and planning fees and also notes that alternative financing options should be explored.

This review suggests that governments have been far more effective in attracting investment than in channeling it to enhance domestic value capture or mitigating negative social and environmental impacts. The governance mechanisms reviewed in this paper have surprisingly little to offer in terms of effort to leverage greater value capture for local communities, domestic industries and state coffers. With the exception of a number of emerging economies, host country governments have done very little to capitalize on their strategic positioning to enhance revenue generation.


This paper summarizes the legal framework that affects the role of private contributions to public infrastructure and value capture. It compares the two polar points of view of value capture—increased property values belong to the private owner of the property, no matter what caused them to increase versus development rights that do not belong to the landowner but to the public because the land use plan that assigns development possibilities to the land is a public document. This discussion also relates to social justice principles, which have been crystallized differently in different countries. The paper summarizes the results of on-going research into the planning systems of England, Spain, the Netherlands, and the region of Valencia.


This research project is motivated by the experience nowadays with the regeneration of urban areas in many Dutch cities. On the one hand, regeneration can and often does create a significant value increase on some of the plots of land. On the other hand, there are other plots of land on which money has to be spent and which either give no returns or which give a return less than the expenditure. When land is in public ownership, the public owner can choose to use the net value increase to cover (some of) the net costs of public infrastructure and facilities. When the land is not in public hands, public bodies can nevertheless sometimes require developers who own the land and benefit from the value increase to pay for the public infrastructure and facilities. A major problem comes when some developers, the ‘free riders’, are not willing to contribute at all. The concept ‘capturing value increase’ includes several similar but not identical concepts. The three concepts that are relevant for this research are: ‘cost recovery’, ‘value capturing’ and ‘creaming off plus value’. Case studies of England, Spain and the Netherlands are included.

The paper examines the proposition that a land value tax is an effective method to promote transit oriented development and raise revenue to finance public improvements within urban rail transit station areas. A case study of a proposed TOD special assessment district in Seattle demonstrates how changing the general property tax to a LVT would provide incentives to utilize sites more intensively.


By using spatially blind institutions, spatially connective infrastructure and spatially targeted incentives, and calibrating the response to severity of the challenge, people can be pulled out of poverty in developing countries. Land valuation, value capture, and land taxation are specifically discussed. The idea is that the profit from property development pays the operational and capital costs of the rail (or bus rapid transit) system. Value capture is an extension of land tax mechanisms. Value capture techniques include (a) ad valorem taxation (b) public private partnerships or transit joint development as used in the USA and (c) leasing property. Land taxation asserts that urbanization rents tend to be capitalized in real estate assets, especial urban land. Public intervention to capture part of these rents through land taxes is justified on equity and efficiency grounds.


This article attempts to apply the theory of the firm analysis to industrial policy. Part of the article recognizes that the existing theory suffers from severe limitations. First, the creation of nation-wide value, though a national strategy, need not engender value and wealth appropriation. Second, nationwide value creation and appropriation need not benefit all economic agents. Third, the ensuing ‘agency’ and potential conflict may undermine the sustainability of the value creation process. Fourth, if successful, nationwide value appropriation strategies, may undermine the overall (global) sustainable value creation process.


This is a critique of the single-tax theory. It develops a search theoretic model for natural resource discovery and demonstrates that in this case, the tax is distortionary. It also considers time inconsistency and regime uncertainty that comes about because of Georgist policy. There is also some historical discussion.

Revenue generated by three value capture strategies has varied but in some cases has been critical to financial feasibility of transit project. Report identifies several factors that can facilitate or hinder agencies use of value capture strategies. Several agencies report that Federal Transit Agency guidance is confusing. GAO makes clarification recommendations.


In the context of mobility hubs: these are potentials for tax increment financing and community improvement plan areas to allow for fiscal (and other) incentives for development. These incentives include value capture strategies, as well as development charges, public-private partnerships and expropriation powers. One of their directions for sustainable financing is to develop and apply mechanisms to capture increases in land values that come from new transportation infrastructure as a revenue source to finance transport investment.


This paper suggests the key attributes and features of an envisioned and integrated transit system for the Greater Toronto and Hamilton Area. Additionally, this Green Paper also identifies the need to consider a range of transit funding options, including potential public-private partnerships, user fees, dedicated tax revenues and value capture through the development of an investment strategy. Funding arrangements must provide sufficient long-term funding for anticipated growth in the region’s economy and transportation demand. One reform is the creation of a comprehensive, integrated system with new approaches to funding, and building, transit and related modes. Potential revenue-generating tools that grow with the economy include sales taxes, carbon taxes, land value capture, road pricing and parking charges.


A transportation investment that materially improves links between centers opens up previously unavailable options for new activities. Traditional cost-benefit analysis does not adequately take account of the value of this option; real options theory must be added to the analysis to evaluate the full benefits. This paper highlights how inclusion of real options factors may either increase or decrease the attractiveness of a proposed
investment. The paper notes that a range of land value capture mechanisms can then be used to extract some or all of the proven benefits of the project.


This consultant report considers betterment levies (called here Community Infrastructure Levy (CIL)). The report analyzed what should be the level of the levy, should it be a single levy or have differential rates, what is the implication for development trajectories in three towns, and how should the level be organized and administered. They conclude that the CIL would work for residential development (under normal market conditions) but some uncertainty for commercial development. Make recommendations.


One of the most progressive and innovative approaches to public investment financing is known as value capture. The author has shown that Land Value Tax (LVT) represents an optimal tax instrument when compared to property tax and the existent structure of property taxation. This paper introduces and discusses all internationally available policies used for raising revenue to finance public investment, and draws on international experience to highlight their main shortcomings and benefits. The paper considers a dynamic model of value creation consistent with the economic framework of multiplier effects of public and private spending and investment. In our view, Land Value (site value) Tax represents the optimal policy instrument for raising revenue for public investment when compared to all other alternatives.


This ssrn report shows that a land value tax, in Ireland, improves macroeconomic stability, supports economic growth, and helps provide infrastructure consistent with high quality employment. It also increases resource allocation efficiency and reduces economic and social inequality. Further argues for gradual implementation to encourage coordination with other tax policies.


The value capture approach to public investment financing envisions creation of the policy tools to adequately capture the privately accruing changes in the value of sites and/or consumption that arise from public infrastructure investments. This paper provides a comprehensive discussion of the concept of value creation arising from public investment. It considers a dynamic model of value creation consistent with the economic
framework of multiplier effects of public and private spending and investment. It distinguishes two unique stages of demand for funding: Early stage capital allocation linked to the full capital cost of the project; and later stage O&M financing support.


The major objectives of the study were to assess the challenges to finance urban roads in Ethiopia and to provide possible recommendations. The major barriers for constructing full-fledged urban roads in Ethiopia are lack of government governance, lack of political stability, corruption at large, government interference on price setting and low level of PPPs. Therefore, it is inevitable that private sector investments will be mobilized to fill funding gaps. The study recommends adopting innovative financial instruments such as public private partnerships (PPPs); tax increment financing; development charges (impact fees), value capture; loans, bonds and carbon finance.


Henry-Georgists often appear to argue that their preferred single tax on land will cure urban sprawl, without planning. This appears implausible, if only because of the difficulty of organizing effective public transport networks. The real error of the single-tax movement does not lie in its economic analysis but rather the treatment of the single tax as a substitute for, rather than a complement to a broader agenda of regional planning. The same goes for planners who ignore land value capture. A theorem suggests that the most fundamental way to regulate urban traffic conditions is to use value capture to build high-fixed-cost public transport infrastructure.


The necessity to establish efficient rail transit systems is often overlooked in developing mega-cities. It is hard for domestic governments and private cooperation to invest in rail construction spontaneously. The financing system for rail transit infrastructure construction should be reformed. The value capture mechanism can be introduced into domestic financing to reclaim the windfall benefits brought by constructing rail transit infrastructures.

Paper discusses the changing nature of PPP in the case of municipal-private partnerships in Israel, focusing on the impact of economic downturns on the role of PPP in local development. Value capture mechanisms already serve as a tool in PPP, either to finance subsidies to the private partner or to secure private sector participation in the public investment. While the use of PPP needs to be more selective, municipal-private partnerships are expected to retain an essential role in local development.


Multiple studies have shown a strong connection between proximity to transit and an increase in land value. An important distinction to make, however, is that when taken as a whole, land value effects of transit are more prevalent in areas with an established and mature rail system, as newer, smaller systems do not have the coverage and range of destinations necessary to allow property owners to command a price premium. By implementing a value capture scheme, transit providers can decrease the general public subsidy by gaining a return on at least a portion of the benefits provided by their service. Others have noted that value capture has been present in other countries, notably England, since the 1400's and even in the United States (or precursor colonies) since the 1600's.


The third section of this doctoral dissertation address taxes on land values. It examines incidence, efficiency, development timing under both certainty and uncertainty assumptions, asset price effects, and risk pooling. The last section of this third part examines land taxation in an historical context. Included in this last part is a discussion of implementation in New Zealand, Australia, the United States and the United Kingdom.

Hersey, John (2007). Making the Case for Transit-oriented Development in Downtown Holyoke, Massachusetts. Department of Landscape Architectural and Regional Planning, Amherst, Massachusetts, University of Massachusetts, Amherst, MA. Master's degree: 63.

TOD is unfamiliar in New England and developers here are unaware of its benefits and challenges. However, there are models throughout the United States which exhibit compelling financial considerations, including value capture from complementary investments, special loan and public funding programs such as tax increment financing. Opportunities discussed in this report speak to financing options typical to transit-oriented development projects. Note that this report defines value capture as benefits incurred from complementary investments from other parties.

This study assesses the impact of proximity to light rail transit stations on residential property values in Buffalo, New York, where light rail has been in service for 20 years, but population is declining and ridership is decreasing. Hedonic models are constructed of assessed value for residential properties within half a mile of 14 light rail stations. The model suggests that, for homes located in the study area, every foot closer to a light rail station increases average property values by $2.31 (using geographical straight-line distance) and $0.99 (using network distance). Individual regression models for each of the light rail system's 14 stations suggest that effects are not felt evenly throughout the system.


This paper examines a transition to sustainable mobility viewed largely in terms of reduced carbon dioxide (CO2) usage in transport. It concludes that this transition is possible but difficult to implement. Part of this difficulty is in financing and the capture of value uplift is proposed as a potential solution to the problem. It notes that if government can buy the land prior to development, it then can sell the land after development and make a profit. This profit can be used to pay for the infrastructure. Uses British examples.


Study examines whether suburbanization decreases support for transit infrastructure and other pro-environment policies. Engages in statistical analysis of voter behavior with respect to ballot propositions for transit as well as three case studies. Finds that support of high speed rail is reduced by suburbanization. Finds that homeowners near high speed rail stations vote yes (called the investment effect), because they believe their land values will increase. Conclude report by advocating use of creative financing methods, including value capture, to increase funding for transit as well as ensuring that scarce transit investment funds are used for highest value projects.


This chapter focuses on land taxation in ancient China. From this analysis in provides three lessons: information on the market value of land was not a prerequisite for land taxation; the simplest method worked best; and, the development of a property tax system is a dynamic process.
HSR is expected to shrink the temporal distance between cities, reshape travel patterns, create an image effect for the country building it, and promote regional economics. HSR is more capital intensive than other transportation projects in both unit cost (the cost per lane km) and total cost. Due to its high costs and public or private budget constraints, HSR may have significant financial impacts on other transportation investments. This research aims to understand the financial impacts of HSR investments. It finds that HSR investments crowd out other transportation investments. In the end, we propose the use of monoline wrapped bonds and the establishment of Portuguese infrastructure bank to lower the financial costs of Portuguese HSR investments. Further, we recommend the use of value capture mechanisms to capture the mega-region economic benefits.


This paper discusses the cost characteristics of High Speed Rail (HSR), analyzes HSR’s potential economic influence on megaregions, and identifies megaregion-related revenues that can make HSR more financially viable: specifically, it discusses the use of value capture mechanisms to capture the megaregion economic benefits of HSR in order to finance such systems. Extensive discussion of value capture.


The purpose of this paper is to examine the abnormal stock return of Hong Kong real estate firms following news of land acquisition and identify determinants to the abnormal stock return. The paper indicates that on land acquisition announcement there is a significant positive price reaction. Also the market capitalization and debt-to-equity ratio of a firm is associated negatively with the level of abnormal price reaction. Put in context of value capture.


This report addresses housing problems in England and argues that too many people do not have a home that is decent, affordable and secure. One of the solutions they suggest is to levy a nationwide land value tax on all undeveloped (but developable) land above £2 million in value with the proceeds to be used for housing investment. The authors argue that this would incentivize development and generate revenue for the building of new housing. They deal with the political difficulty of implementation by taxing only the wealthy (and note that two-thirds of the UK’s land is owned by 0.36 percent of the population).
This paper focuses on ideas for financing new housing supply in the UK. The analysis emphasizes the prospective investor’s perspective. The authors argue that local authorities should release public land to developers in return for an equity stake in development; hold auctions to secure private land for new homes; and adopt a ‘use it or lose it’ approach to privately held land fit for housing. The authors argue that, land auctions are a land value capture mechanism, offering a form of rolled-up, upfront, local land value tax that specifically targets undeveloped land. The authors list several expected results.


Conventional sources of revenue for transportation finance such as taxes on motor fuels have been put under increasing pressure. One potential alternative as a source of revenue is a set of policies collectively referred to as value capture policies. In contrast to fuel taxes and other instruments that impose charges on users of transportation networks, value capture policies seek to generate revenue by extracting a portion of the gains in the value of land that result from improvements to transportation networks. In this report we identify a set of eight policies that contain elements of the value capture approach. These policies include land value taxes, tax increment financing, special assessments, transportation utility fees, development impact fees, negotiated exactions, joint development, and air rights. We evaluate each of the policies according to four criteria: 1) efficiency, 2) equity 3) sustainability, and 4) feasibility. We conclude by examining some legal and administrative issues related to the implementation of each policy with special reference to Minnesota.


This proceedings of the 2011 Land Policy Conference contains 15 chapters on various aspects of value capture. Relevant chapters will be separately identified in this bibliography.


This introductory chapter develops the conceptual framework of value capture, describes the use of some common value capture techniques and instruments, discusses several
historical experiences with value capture, and examines some project based applications of value capture. It also presents an outline of many of the chapters in the volume.


Attempts to recapture an unearned land value increment resulting from the rise in land values and using it for public purposes have a long history. The diversity of spatial patterns in urban agglomerations across the world requires the application of a range of fiscal and regulatory instruments to capture land value increments. Application of these instruments varies according to the degree to which government is able to intervene in land markets, as well as in the amount of unearned increment they recapture. Value capture mechanisms applied in South Africa are analyzed relating to their usefulness to improve the financial situation of municipalities. Also looks at Brazil and Hong Kong examples


This book discusses why governments use non-financial compensation as a planning tool, why governments have to compensate for the loss of a property right and why governments have the right to recapture increased market value. The term non-financial compensation has its roots in agency theory, which accepts that in a principal-agent relation, non-financial compensation schemes will sometimes result in a greater commitment by the agent than financial incentives. The perspective we take in the cases in this book differs from agency theory, most notably because in these cases the value of the non-financial compensation can be unclear. In many countries the idea of recouping surplus value of planning decisions is growing in importance. The underlying concept in many countries is that zoning is not a personal property right; it is a community property right. The book has examples for many countries.


This paper reconceptualizes the delivery of urban intensification programs using the Netherlands as an example. The paper notes that one of the most visible problems now is the currently high and increasingly growing office vacancy rates in the Netherlands, particularly in Amsterdam. This, along with falling house prices have put options for value capture under pressure. Additionally, as local authorities compete with their neighbors for economic development, they may increasingly forego value capture mechanisms. However, because Dutch municipalities are able to buy land, they can secure a direct financial gain from a change in zoning. Local governments use this value increment of rezoning for offices to cross-subsidize other developments such as parks, play grounds, affordable housing, etc.

There has been a move from a polarized world in which companies and governments operate in different sectors to an interconnected, networked world of shared resources and co-creation. One of the trends driving this change is open government data. This article presents a framework of four value generating mechanisms from the use of open government data. This framework will make it easier to compare different pathways to value generation and highlights tensions between the private/public and economic/social domains.


The conceptual difference between value generation and value appropriation (capture) has been growing in importance. Value appropriation materializes when an actor is able to capture a portion of the value created by an activity. Because of the unique features of Open Government Data (OGD), the value that is generated from the use of data is not necessarily exclusively available for appropriation by the owner of the resource, nor even by the value creator. Finds three barriers to value appropriation.


Large public investments in transportation infrastructure can increase the value of adjacent private land, sometimes substantially. Capturing the value of this benefit through various tools is gaining interest as a finance mechanism for infrastructure investments. This document summarizes the findings from a study funded by the State of Minnesota. It finds that eight value capture strategies could potentially be applied by jurisdictions in Minnesota. These strategies yield different outcomes, which can be assessed relative to four criteria: economic efficiency, equity, sustainability, and feasibility. There are also important legal considerations for units of government wishing to apply some or all of these strategies.


Green city leaders are moving from a green lens to a broader focus on the triple bottom line of balancing environmental, economic and social goals. This chapter explores the expanding roles of green city leaders in public finance and budgeting, private finance, and business and economic development. It identifies tools used for value capture,
including tax increment financing, special assessments, impact fees, and property that bases fees on the gross area of a land parcel.


The authors examine neutral taxation policy where demand for developed properties is stochastic over time. In this model, a landlord irrevocably chooses both capital intensity and timing. The government uses three types of property taxation: taxation of capital, taxation on pre-development land value, and taxation on post-development property value. The goal of the government is to expropriate a certain ratio of pre-tax site value as well as neutrality. Various exogenous forces are allowed to vary. Very technical model.


This technical article examines tax design on land value and development in a competitive market. Assuming that development properties reduce open space and that this negative externality is ignored, the authors find that properties will be developed sooner than the social optimal. One way of correcting this is by imposing a negative tax on land value—the opposite of a land value tax.


A significant portion of local transportation funding comes from the property tax. The tax is conventionally assessed on both land and buildings, but transportation increases only the value of the land. A more direct, efficient way to fund transportation projects is to tax land at a higher rate than buildings. The lower tax on buildings would allow owners to retain more of the profits of their investment in construction, and have the expected side effect of increased development intensity. A partial equilibrium simulation is created for Minneapolis, Richfield and Bloomington, Minnesota to determine the intensity effects of various levels of split-rate property taxes for both residential and nonresidential development. The results indicate that split-rate taxes would lead to higher density for both types of development in all three cities.


Roads cover a significant fraction of the land area in many municipalities. The public provision of roads means this land is exempt from the local property tax. Transferring roads from public to private ownership would not only remove maintenance costs from city budgets, but increase potential property tax revenue as well. This paper calculates the value of the land occupied by roads in sample cities and determines the potential revenue
increase if they were subject to property tax. Further calculation computes the extent to which the property tax rate could be reduced if the land values of roads were added to the tax base.


Addresses land use challenges in countries where government decentralization, devolution of government owned land to local governments, and revisions of land governance are active processes. No direct discussion of value capture. Some government policies sacrifice land value, with examples of Egypt, Serbia, Macedonia discussed. Recommendations on inventorying, reporting, auditing, property rights definitions, types and rules of acquisition, disposition, contribution of public property to joint ventures, and use of land for borrowing.


This book, by an avowed Georgist, examines principles of economics often using a Georgist perspective. Goes into detail about the way a land tax would work. There is some critical analysis of the land tax that is also included.


The roads and bridges that make up our nation’s highway infrastructure are in disrepair as a result of insufficient maintenance. This deficit is in part due to a prioritization of new projects over care for existing infrastructure. This paper proposes a reorganization of our national highway infrastructure priorities. First, all revenues from the existing federal gasoline tax would be devoted to repair, maintain, rehabilitate, reconstruct, and enhance existing roads and bridges on the National Highway System. Second, funding for states to build new and expand existing roads would come from a newly created Federal Highway Bank. Third, new and expanded transportation infrastructure that meets or exceeds projected benefits would receive an interest rate subsidy from a Highway Performance Fund to be financed by net revenues from the Federal Highway Bank. Projects financed by borrowing would be repaid with a dedicated revenue stream from user charges, and with land value capture on benefiting properties if user charges are insufficient.


This report offers a comprehensive analysis of how cities and metropolitan regions can change the way we think about responding to climate change. In some metropolitan regions, transportation-related taxes are used to fund metropolitan transit. A local tax that
is frequently used to finance public transportation is the value capture tax. Value capture taxes can be imposed or can take the form of a negotiated agreement; they may be levied as an ongoing annual charge or as a one-time tax. Value capture taxes have been used to finance transport infrastructure in cities as different as Hong Kong, Miami, Milan and Bogotá. A value capture tax can only be applied when the property value increase can be unambiguously attributed to infrastructure investment. Value capture taxes are less useful when property taxes are assessed on a yearly or regular basis, since the annual assessment captures any increases in the property value that might result from public infrastructure investment.


This paper examines the support currently available for meaningful community-led planning and makes the case for a more sustainable means of providing the resources required to make the process work. The capture of social value should be incentive enough to invest appropriately in neighborhood planning. This paper promotes a radical re-think of how community-led development is understood by policy-makers, arguing for a more holistic approach to planning, which reflects the true social and economic value of building a better built environment and strong communities.


This article examines a proposal of a two rate tax system by Kauai County, Hawaii. Developed in order to capture rents from tourism and additionally provide property tax relief to local homeowners, it finds that tourist accommodations are more capital intensive than other real estate. Because of this, and because the proposed higher rate on improvements, there is a heavier tax burden on the tourist industry relative to other sectors of the economy. Concludes that this may not work well for communities that wish to encourage tourism.


A brief description of Japan's land value tax, which is intended to reduce the profitability of holding land without using it. This tax is imposed on domestic, underveloped land held by an individual of a corporation. The tax is based on the assessed value of land less an exemption and is currently suspended.

Transport infrastructure is increasingly being funded by charges that more closely target the direct beneficiaries of the infrastructure. One form these charges can take is a levy on land owners or developers – i.e. value capture mechanisms. In New Zealand there are a number of mechanisms that can be defined as value capture mechanisms: development contributions, financial contributions, targeted rates, and other negotiated mechanisms that sit outside of legislation (i.e. do not refer to policies contained in a council’s long-term plan). This report outlines the experience to date in using these mechanisms and highlights a number of limitations with, and barriers to, the current use of them in New Zealand.


Kuala Lumpur, Malaysia has poor public transit services, partially because of the lack of funding. Article argues that prospects for future funding appear to be good. Article draws lessons from Tokyo and Hong Kong. Concludes that it is crucial that more viable funding strategies and policies such as value capture and public–private sector partnerships be implemented. The strategies for funding public transport in Kuala Lumpur need to be supplemented with key measures in form of transport demand management such as high fuel taxes, high auto taxes, park and ride facilities and high car parking charges.


This paper examines the impact of land use on transport planning in Kampala in view of the city’s recent experience. To address key transportation challenges such as rapid motorization and traffic jams, it is critical that land use-based strategies such as transit malls, land value capture, constructing high density buildings (both commercial and residential) along the transit lines as well as establishing park and ride facilities are adopted by the urban managers and city policy makers. Mentions Tokyo and Hong Kong as value capture examples.


This study examines 731 office properties in Seoul, Korea to determine the impact on office rentals and land values by a transit station's location in the city. Value premiums from better accessibility to stations seem to exist; but they decay with increasing distance from centers and correlate with the development densities of station areas. This study expands its estimation model to contain errors as well as dependent variables, reducing the spatial autocorrelation and thereby producing a more efficient estimate for transit's impact. Discusses value capture approach.
The land tax is analyzed in one of the three essays in this doctoral dissertation. He finds that a property tax on land value promotes more compact and less leapfrogging development during boom times and uses this result to confirm that a tax on land value can be an effective land use policy tool. He explains why the land tax is effective during expansions but not contractions by examining the potential income coming from land development.

This paper examines whether a land value tax can lead to land (parcel) fragmentation. The overall impact of a land value tax on land fragmentation may be as important as the effect on development of new parcels. Study uses a maximum likelihood probit model with sample selection to measure the effect of a land value tax on parcel level fragmented development. Applies model to Knoxville, TN. Finds that a higher property tax rate on land value could promote parcel fragmentation and that this relationship would be stronger in the area between the city’s and town’s boundaries.

The objective of this chapter is to contribute to policy dialog on infrastructure financing in Colombian cities. In analyzing the current structure of municipal financing for urban infrastructure, it aims to shed light on both the strengths and weaknesses of the current system. The recommendations and policy options explored to improve financing mechanisms are differentiated by municipality and city size. The chapter is divided into four sections. The first reviews public infrastructure finance in Colombian cities. The second analyzes national government-supported programs in urban transport and the water and sanitation sector. The third explores differentiated policy options drawing on lessons and challenges from the application of urban infrastructure finance instruments, particularly with Colombia’s experience with land-based finance instruments, such as betterment levies and valorization (a type of value capture). It finds that value capture is declining in use because of implementation delays and lack of transparency.

An overview of four land-based financing instruments is provided. The first two have been used in several Colombian cities and have been considered good practices.
worldwide: betterment fees (valorización) and land-value capture (plusvalía). Strengthening these tools in large cities, as well as extending their use to midsize cities, is a first step toward further exploiting the use of land-based financing in Colombia. This section highlights the main characteristics of these tools as well as their key limitations. Successful implementation of plusvalía has been undermined by methodological limitations and complex regulatory norms. As is the case with betterment levies, plusvalía suffers from the lack of a precise methodology for measuring changes in property prices.


This is a report analyzing the effects of a movement to a split-rate property tax for the city of Erie Pennsylvania. After a discussion of the differences of a land value only tax and a split-rate tax, the report analyzes several different tax ratios. The report focuses only on the tax burden across property owners. It generally finds that under a split rate system, residential property owners pay very slightly more than before the split. Apartment, commercial and industrial property owners pay less, the property owners most affected by the switch are those furthest away from the city average building to land ratio. The report advises the city to transition slowly, perhaps taking as long as five years, preceded by a one year announcement


Value capture represents an attempt to cover part or all of the cost of transportation improvements from landowners or developers who benefit from the resulting increase in the value of real property. The federal role in value capture strategies may be limited, but they are worth describing. GAO found that the most widely used mechanism is joint development, in which a real estate project at or near a transit station is pursued cooperatively between the public and private sectors. An example might involve a transit agency leasing air rights over a station to a developer in exchange for a regular payment. Joint development has generated relatively small amounts of money for transit agencies. There has been less use of value capture in highway projects but this appears to be changing. Examples are in Texas, Florida and Virginia.


This paper concentrates on a best practices approach to funding public services provided by metropolitan and local governments, and more specifically, Metro Vancouver. A value capture levy recovers the increase in land value arising from a public investment. City spending on public infrastructure and subsequent zoning decisions can increase the commercial value of holdings of private landowners. Value capture levies are justified if the public investment creates windfall gains for the private developer. The levy permits
the municipality to capture (some of) the economic rents accruing to the private sector that have been created by this local infrastructure spending. The paper describes a variety of ways to capture value. Use of value capture levies is most suitable for mega-projects such as rapid transit expansion.


This book chapter lays out the role that property taxes should play in financing municipal services. It provides data on the relative importance of property taxes as a generator of local revenue in a range of countries. It covers a number of important and controversial issues in assessment. It then provides an overview of issues concerning property tax rates and other property tax issues, including a discussion of incidence and property tax relief schemes. Included is a discussion of value capture uses and concerns.


This article analyzes value capture from the private perspective in terms of public-private partnerships. It argues that PPPs intersect the boundaries of public and private economic activity and carry important organizational strategy, management and policy implications. It identifies value creation and capture mechanisms embedded in these implications through a theoretical framework of two conceptual public-private structural alternatives. Two important restraints on private value capture--public partner opportunism and external stakeholder activism arise asymmetrically under each form. Note that public value capture is an extension of this analysis.


Ørestad is Copenhagen’s linear new town being built over a 30 year period around stations on an elevated, driverless mini-metro line. A unique feature of Ørestad in contemporary Europe is that the cost of constructing Phases 1 and 2 Copenhagen’s Metro, including the underground section, was intended to be financed by capturing increased land value by selling building sites along its route in Ørestad and earmarking future revenues from Metro ticket sales to pay back the cost of the 30 year Government construction loan. However this funding model proved to be insufficient as Metro’s overall construction problems increased costs which more than doubled while the forecast of passengers was too high. This financial shortfall is being paid for by Danish taxpayers. However, the cost of constructing the Ørestad section of Metro has been partly covered by land value capture. Ørestad’s land development costs were also much higher than expected.
One of the heated topics regarding benefit-cost analysis methods is the estimation of livability benefits. Economic practice has favored the estimation of these benefits through analyzing changes in property values, as this provides value capture evidence for policy makers to justify the investment. In particular this approach suggests the value of all the amenities generated by a transit project may be capitalized in the increased value of nearby properties, which after the improvement are located in place that is more ‘livable.’ This research connects consumer demand and value of livability through benefit transfer of existing hedonic studies of transit investment. In particular it lays out the steps to which livability benefits can be assessed.

The impact of proximity to transit on property values has become a key question in the debate on the relationships between public infrastructure investment and economic development. The focus has been on value captured by residential properties, with far fewer studies examining non-residential properties. Based on the economic theory of firm location choice, this study develops hedonic pricing models to assess the value-added of the Hiawatha LRT on commercial and industrial properties, using data on properties sold before and after its completion. The results show that the LRT has induced a significant price premium for properties nearby and that the impact extends to almost 0.9 miles away from LRT stations. The size of the effect boundary has implications on value-capture and, ultimately, project financing.

Previous literature concludes that replacing wage taxation by taxes on a fixed factor or its rents benefits future generations. However, the effects of such steady-state gains on the transitional generations have been left open. In this paper, we show that taxation of rents may also increase utility of the current generation provided tax revenues are earmarked to reduce wage taxes. In particular, a shift in the tax mix may yield an intergenerational Pareto-improvement when the initially prevailing tax mix is sufficiently skewed towards wage taxation.
sector. It then attempts to model these inter-relationships. Part of this model involves value capture, which is defined as the transferring of part of the profit that the private company realizes because it is adjacent to a public utility. This is not done voluntarily, and the author recommends a lump sum or special tax. Notes that this is not been widely put into practice in Greece.


Discussion of financial problems of public-sector infrastructure development increasingly focuses on ways to improve value capturing. Two issues are crucial: how much value can be captured and how can we maximize the value to be captured? In this paper a conceptual model is presented that enables defining the optimal level of public sector infrastructure development—combining a social and financial perspective. Using the model, it is possible, in principle, to define the maximum level of value capturing. Additionally, the paper provides empirical evidence of the potentials of value capturing in three Dutch case studies.


One of the features of the proposed Fort Lauderdale streetcar is that it is being promoted and developed by a consortium of local business and property owners, under the umbrella of the Downtown Development Authority (DDA). Believing that a streetcar – with its permanent infrastructure and positive image -- would further attract investment to the downtown area, the DDA spent nearly three years on a streetcar proposal. The DDA board members, many of whom are real estate developers and property owners, believed that the streetcar’s permanent infrastructure and positive image would lend confidence to investors. Additionally, board members also knew that the project is eligible for a considerable amount of local, Federal and State funding and can be built relatively quickly.


Argues that land value close to a rail station far exceeds that of the same land use in close proximity of a highway. It is possible that the initial costs of building transportation infrastructure can be covered by the increase in property values and therefore increased taxes collected by the government. One of the goals of a successful TOD is value capturing. Value will be captured only when certain key requirements are met: frequent, high quality transit service, and good connections between the station and the surrounding community. Opportunities to capture the value of the investment come from
the future residents. For local government, this could mean a higher tax base as property is worth more with the introduction of public transit.


After examining the current weaknesses of current urban planning regulations in Denmark, this thesis shows how value capture tools can be used to improve Danish society. It defines value capture, examines its mechanisms, and its use in the past (with a particular focus on Curitiba, Brazil). It then examines the 5000 x 5000 plan (a plan to build in Copenhagen 5000 cheap flats that would rent for 5000 DKR a month. However, after five years only 192 of the apartments were built.) It then determines how value capture can be applied to this plan in a very practitioner oriented manner. Land-Value taxation is included as a value capture tool.


The ongoing loss of ecologically important natural lands in many parts of the U.S. is well documented. Assessing the economic value of natural lands can yield information that can inform better land use decisions and conservation policy making. Institutional mechanisms must be in place that allow the owner of the land to capture the value of the off-site services the land provides. Such mechanisms can take several possible forms, including government payment programs, ecosystem service markets based on regulation or voluntary action (e.g., carbon sequestration payments), or fiscal incentives (e.g., tax deductions). In addition to the need for a value capture mechanism, the sum of the landowner’s private (on-site) benefits and the compensation received for the off-site benefits must exceed the benefits obtained from land development.


This article uses a hedonic estimator to separate the market value of land and structures at the census tract level. It finds substantial heterogeneity in the market value of land and structures within a metropolitan area. Implications for land value taxation are derived. In particular, the authors find that a replacement cost approach may overstate the value of land during a boom-bust cycle, the bias would be greatest in high amenity neighborhoods, and that moving from a property tax to a land tax may help to stabilize revenue streams for some municipalities.

This article suggests that because of decentralized tax policy responsibility, local governments might try to attract industry and jobs by underproviding local public goods with lower taxes (or lax environmental standards). However, the authors find that using land taxation to fund local public goods, and tackle within-jurisdiction pollution externalities, efficient public good provision and local environmental quality can be obtained. However, the authors find that local governments must be able to tax a fixed factor only, tax revenues are returned to immobile residents, and firms respond to a fixed property tax.


This working paper notes that there are differences in beliefs as to the effects of a split rate tax system on levels of sprawl, with some suggesting that it reduces sprawl and others suggesting that it increases sprawl. This paper conducts a case study of Hawaii’s experiment with split-rate taxation between 1963 and 1979. Additionally, the paper outlines the political narrative underlying the passage and repeal of the split-rate tax. The paper also identifies the potential biases in econometric work on split-rate taxation and sprawl. However, no empirical work performed.


This article examines the political economy of Hawaii’s experience with split-rate property taxation. The article traces the history of split rate in Hawaii and culminates with the 2006 adoption of an inverted split rate tax on Kauai. (An inverted split-rate tax taxes improvements on a higher rate than land.) Differentiates this history from the Pittsburgh history, in that split rates in Hawaii was an idea that originated with the state, not local governments.


New development based on the TOD approach around the transit stations would need to be a key priority in municipal planning, requiring a high level of detail. The accessibility of land is generally not properly priced, because the cost of building and maintaining transport infrastructures used to access land are sustained by the community and not by the landowner. A proper taxation levied on the value of land and not on property, would lead to an internalization of external costs imposed by the development of land, and would discourage urban sprawl.
To finance public projects without placing undue stress on municipal finances, cities may explore the possibility of adapting and applying value-capture instruments and other innovative financing tools. Colombia’s National Development Plan for 2010–14 identified development of context-appropriate financing mechanisms as a policy priority. In particular, there is considerable scope to capitalize on the fact that infrastructure investment is often associated with property value gains. “Land-value-capture” instruments have been utilized to leverage these gains to help extensively finance infrastructure investments for brown-field development and urban redevelopment, with mixed results.


This paper examines the potential use of value capture to contribute to Australia’s urban renewal and public transport funding shortfall. Obstacles and opportunities to this funding method are examined based upon recent pilot studies, government and private sector reports, and urban renewal and public transport projects proposed or under construction throughout the country. Successful value capture programs in North America are presented to illustrate how such programs could be implemented given Australian governance and legislative frameworks. Recommendations are made concerning how value capture methods should be considered and implemented.


Conventional sources of revenue for transportation finance have been put under increasing pressure. One potential alternative is a set of policies collectively referred to as value capture policies which seek to generate revenue by extracting a portion of the gains in the value of land that result from improvements to transportation networks. In this report the authors identify a set of eight policies that contain elements of the value capture approach: land value taxes, tax increment financing, special assessments, transportation utility fees, development impact fees, negotiated exactions, joint development, and air rights. Each of the policies is evaluated according to four criteria: 1) efficiency, 2) equity, 3) sustainability, and 4) feasibility. Since these policies are targeted toward use at the state and local level in Minnesota, the authors conclude by examining legal and administrative issues related to the implementation of each policy with special reference to Minnesota.

This article, based on Latham's book, shows why Marxists reject Georgist arguments, argues that many British taxes should be abolished and replaced by annual land value tax plus progressive taxation of income and wealth, and asserts the relevance of Gramsci's theory of the historic bloc in devising strategies to contest the convergence of Britain's political parties around the surrender of local democracy to big business control. Concludes that with an annual land value tax, Britain's deficit would be closed within five years without cutting government services.


In real estate economics, there is a lack of research in studying the relationship between the built form and economic value. One perspective in understanding the built environment morphology is through its spatial configuration. This research makes use of the hedonic approach in estimating the influence of spatial configuration on observed housing sold price. The results from this study suggest that spatial configuration measure of accessibility such as space syntax integration and space syntax choice are significant variables influencing transaction house price both positively and negatively in London between 1995 - 2011. The results suggests space syntax integration is an appropriate variable in hedonic models to capture accessibility effects.


This study examines accessibility and its importance in assessing transportation performance and in creating a sustainable transportation funding source. It first delineates the concept of accessibility through a comparison with the common transportation performance metric of mobility. The paper then explains how accessibility can help fund transportation through a virtuous circle. Local, state, and federal governments must better understand the structure and characteristics of value-capture policies if they are to develop their full potential as a sustainable funding source.


The authors argue that fiscal regulations have shaped how China’s municipal governments plan for and invest in passenger rail services and land development around stations, and that policy reforms are necessary to bring successful transit-oriented development and transit operation for China’s next round of urbanization. Using Pearl River Delta (PRD) as the study case, we review the planning and funding processes for an inter-city passenger rail services, and reveal how a new funding and planning framework has been developed out of pre-existing organizational and legal constraints.
The central piece of this innovation is a value capture framework beyond municipal boundaries.


This paper attempts to extract land value from total property value using data from 1994 to 2003 in Taipei City, Taiwan. It employs a trend surface approach to establish a spatial variable in order to capture the effects of spatially associated variables on property value. It then derives the percentage of land value in the total property price using both linear and non-linear regression models. Finally, it compares these to rule-of-thumb estimates. No final results reported.


This article examines assessment issues in Taipei, Taiwan, a site which has a history of a split-rate property tax. It examines the implementation of this tax for accuracy and equity issues. Using linear regression, it finds that the ratio of land value to total property tax varies across types and ages of property, leading to both assessment and tax inequities.


The BRT project of Porto Alegre consists of a route crossing the city center and linking trunk and feeding interchange terminals. The BRT project for the East-Northeast zone of São Paulo proposes to use value capture mechanisms made legal by the Statute of the Cities, enacted in 2001. These include the concept of an urban operation – a legally defined set of interventions and projects to be carried out within a specific area – and the issue of tradable certificates of additional building rights in the area. In combination, these mechanisms allow the anticipation of the financial resources required to execute the proposed projects needed to raise property values in the region.


This report describes the results of a study commissioned by the Victoria Regional Transit Commission (VRTC) and the Capital Regional District (CRD) to identify and evaluate potential local funding options to help finance major public transit improvements in the Capital Regional District. It evaluated seventeen potential local funding options according to nine criteria. This research included literature reviews,
public surveys and focus groups, and analysis. Value capture is one of the options analyzed.


This report evaluates eighteen potential local funding options suitable to help finance public transit or other transportation projects and services. They are evaluated according to eight criteria, including potential revenue, predictability and sustainability, horizontal and vertical equity, travel impacts, strategic development objectives, public acceptance and ease of implementation. The overall conclusion of this study is that a variety of funding options should be used to help finance the local share of transportation improvements to insure stability and distribute costs broadly. Value capture is one of the discussed tools.

Little, David D. and Margaret Picard (2009). The Impact of APMs on Property Value. 12th International Conference of Automated People Movers, Atlanta, Georgia, American Society of Civil Engineers.

Landside airport automatic people movers (APMs) that go "off" airport property typically require multiple landowners and government agencies to agree on a multitude of elements. One of the most important of these elements is project finance and one of the most important components of project finance is the real estate value enhancement that a landside APM provides. A strong correlation between property value and proximity to fixed guideway transit (rail or APM) has been found for properties that are within walking distance of a transit station. This paper helps define and quantify the positive impact that landside airport APMs can have on real estate property value and how that value enhancement can be "captured", to help improve a project's financial picture.


This paper synthesizes two public policies: land value taxation and citizen dividends. It develops an integrated framework that increases the attractiveness of both and which increases the likelihood of implementation. It argues that a land value tax is the ideal public finance mechanism to fund a citizen dividend which may be an essential component need to advance a land value tax. Concludes that a land value tax can be a funding source for basic income support programs.


Land conversion is often not carried out in a sustainable way. This paper compares Germany, China and Cambodia. The article points out that, despite huge differences in institutions and governance, unsustainable land use changes have some patterns in
common: The beneficiaries of land conversion are often well-organized actors, whereas the costs of land conversion are often shifted to poorly organized groups and to society as a whole. In order to achieve a sustainable land use policy, the article suggests completing the planning law with an economic framework. Concludes that infrastructure is basically a public good which should be financed out of taxes. Developers act as an agent of the state. They should get fair compensation. However, they should be paid by tax revenues and not participate in the incremental value caused by land conversion.


Within the privatization agenda, benefits of unimproved land (such as land rents and value capture) are reaped privately by well-organized actors, whereas the costs of valorization (e.g., infrastructure) or opportunity costs of land use changes are shifted onto poorly organized groups. Article then gives a formal definition of value capture in terms of present value. A reframing of development policy is necessary. Examples and evidence are provided from Cambodia, which has many features in common with other countries in Asia and Sub-Saharan Africa.


Land values can be negative if the holding costs of land ownership exceeds the land rents that accrue to the property owner. This paper concludes that negative land values would not fundamentally change the efficiency characteristics of a land tax. It also provides a framework for determining when external factors that affect property values are attributable to land or building values.


This paper claims the existence in Chile of a particular form of gentrification by ground rent dispossession. The result is owner-occupiers struggle to add further exchange value to their properties, while the largest portion of potential ground rent produced is realized and accumulated exclusively by large-scale developers. Consequently, dilapidation spreads in the inner city, and, in the event of large-scale renewal, residents have to sell out at lowered price. In this context, land taxation has limited effects for several reasons.


This is a summary of a social justice dialog between Catholics and Georgist’s which was held under the auspices of a Jesuit university. While eight topics are discussed, land taxes are mentioned only in the neighborhood revitalization section. There is some skepticism concerning the efficacy of a land tax’s impact on revitalization, which might
reflect the differences between a social orientation and an economic orientation toward neighborhood revitalization.


Bus rapid transit (BRT) is increasingly being considered in cities across the United States public transit mode. A large part of the appeal of BRT is its flexibility, offering a choice of system features that can be adapted to each community’s needs and constraints. Among reports key findings is that the finance segment is less developed for BRT compared with rail or highway projects, with value capture and innovative finance not being considered BRT. These innovative finance mechanisms—such as special assessment districts or public/private joint development projects—attempt to capture the increased value of property surrounding a BRT line or corridor, using it to leverage public funding resources and help pay for capital costs.


This chapter focuses on research parks as real estate investments while recognizing that there is also a value for non-real estate benefits. Its central question is that if public and university investments add value to a science park, does that increase in value get captured by those stakeholders. The chapter investigates town-gown fiscal relations, reviews the literature on the success of research parks, and outlines a methodological approach that might be used in case studies.


The Vancouver Declaration in 1976 sparked discussion of land value capture and consideration as revenue generation source for governments worldwide. Several LVC instruments exist but property tax and land leasing have been considered in this study. The property tax in Ghana is based on improvements only and depreciated replacement cost which in principle alone does not capture land values. In order to solve this problem, a primary research question “To what extent does property tax and land leasing capture land values to finance urban infrastructure/services?” was posed. The approach to the research was a case study.

This paper estimates the effect of highways on land prices using the implementation of the west branch of a large beltway around Sao Paulo Metropolitan Area. This is a unique opportunity because the beltway is being implemented by branches, so, it is possible to use the zones surrounding the branches where construction has actually started as a treatment group to be compared with zones surrounding branches for which construction has not started yet. This makes it possible to estimate the impact by difference-in-difference estimation. The evidence is that there are significant and asymmetrical effects caused by the highway construction. The results have consequences for transportation finance; betterment levies and value capture taxes; and welfare.


As part of a discussion of regional development, this article briefly discusses an Australian program of returning “some of the value captured by the State back” to the areas in which the value was generated. This reflects the “institutional fault line of Australian politics: federal-state relations.”


The aim of this work is to study the feasibility of escalators in three areas of Lisbon that would allow access to Campo dos Martires da Patria which is located on a hill. An area with good accessibility is quite popular and the cost of real estate is high. The installation of escalators generates substantial improvements in accessibility which causes an enhancement of properties in the surrounding area and the dwellings in the vicinity of this system will be closer to much more parts of the city. This value should be captured in at least in two thirds of his total for the local administration responsible for the installation and management of this mechanism.


In addition to private sector financing of urban transit, another way for national governments to leverage their own finances and the funding received from international sources is to tap into local funding sources. The funding sources available to national governments in this category include land value capture and betterment levies. For example, in Hong Kong, the Mass Transit Railway (MTR), one of the region's major property developers, is using profits from new housing, commercial, and retail schemes to pay for part of the construction cost of new subway lines, allowing them to operate without any subsidy from the government. This instrument is used in Delhi as well as a revenue source to finance the operations of the Delhi Metro rail public transit service. Also in India, the Pune Municipal Corporation has proposed the creation of an urban transport fund to raise about USD 480 million for financing a new metro rail project.

This paper defines recurrent property taxation as a tax on capital and is divisible into state land taxes and local government rates. This is applied to Australia. Land taxes were 5 percent of the total taxes collected in Australia in 2008/2009. It notes that in Australia, exempts residents (which makes it a land tax). The paper also gives the history of the Australian land tax, as well as distinguishing the state land tax from the local land tax.


This Master’s thesis examines TIF financing in small towns in Vermont. It identifies value capture as another name for TIF. It applies analysis to wastewater treatment projects. Concludes that although TIF is plausible for these projects, employing TIF seems to be neither practical nor suitable for wastewater projects in unsewered towns. Thesis also suggests sways that the State can assist municipalities in financing wastewater projects.


This paper evaluates the legal framework and the economic-financial impact of the use of value capture solutions in relation to public transport infrastructure in several countries. It makes a systematic characterization of the public transport infrastructure types that have used this financing mechanism in the past, and presents a comparative analysis of results. After this assessment, the possibility of implementing this concept in the Portugal is assessed, considering its legal framework, identifying the main obstacles for its adoption in financing urban subway systems, and suggesting solutions to overcome these obstacles based on the international experience.


This paper evaluates the legal framework and the economic-financial impact of the use of value capture solutions in relation to public transport infrastructure in several countries. It makes a systematic characterization of the public transport infrastructure types that have used this financing mechanism in the past, and presents a comparative analysis of results. After this assessment, the possibility of implementing this concept in the Portugal is assessed, considering its legal framework and identifying the main obstacles for its adoption in financing urban subway systems. This research uses spatial hedonic pricing models of the real estate of the region, calibrated on previous stages of the study, to assess the extent that transportation infrastructure is currently capitalized into the real
estate market. The paper uses a Monte Carlo simulation procedure. This potential value capture estimate is then used to estimate an annual tax that could be charged under different value capture measures configurations (i.e. land value tax, special assessment). The results suggest that there is a significant potential of the use of this instrument to finance the subway infrastructure.


The Delhi Metro Rail Corporation (DMRC) was established to build and operate the system, with equal shareholding by the Government of India and the Government of NCT Delhi. Financing was obtained primarily through international loans with a small percentage raised through the development and leasing of government properties provided to DMRC on long-term leases at nominal rents. The financial contribution of property development is noteworthy and possibly represents an example of value-capture, in which infrastructure developments capture some of the increased property values. This appears to have been extremely successful at generating revenue for DMRC, although it is unclear what proportion of this value was generated by the metro as opposed to representing a subsidy through property transfer.


This paper systematically estimates the impact of selected jurisdictional-level public infrastructure and services—transportation accessibility, crime, school quality, and overall quality of municipal-level infrastructure and services on various single-family housing submarkets. The findings, for transportation infrastructure, suggest that the decrease in travel time to the central business district is likely to primarily benefit high-quality housing.


With all levels of governments under significant fiscal stress, any new transit funding mechanism is welcome. Value capture (VC) is one such mechanism. Based on the “benefits received” principle, VC involves the identification and capture of public infrastructure-led increases in land value. While the literature has extensively demonstrated the property-value impacts of transit investments, very little research has examined the suitability of VC mechanisms for specific transit projects. This report aims to fill this research gap by examining five VC mechanisms in depth: tax increment financing (TIF), special assessment districts (SADs), transit impact fees, joint developments, and air rights. The report is intended to assist practitioners in gauging the legal, financial, and administrative suitability of VC mechanisms for meeting project-specific funding requirements.

This paper examines joint development projects' ability to generate revenue for transit agencies, including tools of land value capture. Using interviews, and primary and secondary text, the paper studies five joint development projects and finds that revenue yield and stability from joint development projects vary widely. The paper argues that joint development projects benefit from supportive land use and zoning, and clear policy objectives and political direction. Finally, inflation-adjusted minimum guaranteed revenues and gross revenue sharing help enhance revenue yield and stability.


Financing productive public capital through distortionary taxes typically creates a trade-off: the optimal investment is determined as a compromise between efficiency-enhancing public investment and market efficiency, but is never socially optimal. In contrast, such a trade-off can often be avoided if public capital is financed by taxing rents of a fixed production factor, such as land. Here, we provide a macroeconomic version of the Henry George Theorem. Specifically, we prove that the socially optimal level of the public capital stock can be reached by a land rent tax, provided land is a more important production factor than public capital.


This technical working paper proves that if land is a more important factor of production than public capital, then a socially optimal level of public capital can be reached by a land rent tax.

McAllister, Patrick, et al. (2013). Inside the black box: unraveling the development viability appraisal process. Reading, UK, Henley Business School, University of Reading: 35.

Various policies (in the UK) have been introduced to capture some of the uplift in land value that accrues to the landowner when planning permission is granted. The current incarnation of land value capture is a policy mix that allows local authorities to secure planning obligations and infrastructure levies. Policy now dictates that targets for affordable housing, community services and infrastructure payments must be set at levels that do not compromise the financial viability of proposed developments. In practice this has proved problematic. The practice of development viability appraisal centers on the calculation of land value using one of a number of standardized industry-developed models. There are problems with these models and their use.

This paper investigates the application and use of development viability models in the formation of planning policies in the United Kingdom (UK). Particular attention is paid to three key areas: the assumed development scheme in development viability models, the use of forecasts, and the debate concerning Threshold Land Value. The empirical section reports on the results of an interview survey involving the main producers of development viability models and appraisals. It is concluded that, although development viability models have intrinsic limitations associated with model composition and input uncertainties, the most significant limitation is related to the ways in which they have been adapted for use in the planning system. The article includes discussion of the Community Infrastructure Levy (CIL) and Threshold Land Value. Value capture might be included as part of the CIL discussion.


This is an international survey land value taxation as of 2007. It found that while land value as a basis of taxation is conceptually sound but it is of limited use. Further, in countries where it has been in use, there is a trend to move away from its use. The report notes some difficulties when historic property or farm land is included in the base and that the planning/land use zoning system, as currently implemented, falls considerably short of being able to achieve this. After examining the distinct disadvantages of land value taxation, the article, overall, is pessimistic about introducing a system of land value taxation.


The focus of this paper is on alternative approaches to determining value based assessments that include both improved and unimproved capital value and annual rental value. The term unimproved capital value tends to have been supplemented by either land value or site value which has a subtly different meaning to that of unimproved value. Within the valuation context, this requires that land should be valued ignoring any improvements that may have been made to the land. It argues that the logical base of a land value tax is not the value of land in some natural state but rather the current value of land. After these definitions, the paper includes information on how the property tax is administered in 121 countries. It finds that capital value is the most popular form of property taxation.

This chapter focuses on alternative means of determining value based assessments, including improved and unimproved capital value and annual rental value. Included in the unimproved capital value discussion is the discussion of the nuanced meaning of the term unimproved land value.


Book contains 15 chapters by various authors on the property tax with some chapters containing some discussion of value capture and land taxes.


In analyzing the city finance infrastructure in Vietnam, authors find that current revenue sources are unsustainable, lack buoyancy and will demonstrate a declining revenue base. Article advocates a property tax based on land values. Its empirical analysis demonstrates that the government’s proposal for a land base tax has several structural problems, but it is a positive step in developing a sustainable revenue source.


This paper examines how to measure the extent of value created as a result of the provision of transport infrastructure and then outlines the applicability of the use of global value capture mechanisms in the South African context. Three South African case studies used. The paper outlines an alternative method to measure the extent of value creation that is based on a forward looking feasibility approach rather than the historic, hedonic approach that is conventionally used. Paper identifies three important conditions of success: clear policy objectives; have market conditions conducive to the creation of surplus value over and above that needed to make the development viable; and the institutional and legal frameworks to ring-fence around specific developments.


The value capture process comprises four key elements, the creation of value, the calculation of the additional value created, the capturing of this value, and the use of funds resulting from the captured value. This paper concludes that legally, value capture is possible in South Africa, but that the legislation is vague and inconsistent.
Furthermore, the article finds that value capture is most successful when the policy objectives are clear, the mechanisms are correctly defined, favorable market conditions prevail and solid administrative systems are in place.

McIntosh, James, et al. (2012). Initial Assessment of the Accessibility & New Funding Opportunities for the Doncaster Rail Project. Australia, Curtin University Sustainability Policy Institute: 120.

This is an examination of alternative transportation scenarios for the Doncaster corridor (in Victoria) in Australia. Part of the analysis is an examination of non-traditional funding opportunities. It identifies a variety of mechanisms to capture increases in land value and generate a revenue stream. Concepts include active, passive and avoided costs. Quite sophisticated value analysis study.


This law review article argues that a land tax is a form of rent tax imposed on the unimproved value of land. It then extends the argument by examining a rent tax be imposed on businesses that have a monopoly and the possibility of an economic rent tax being imposed on finite resources such as geothermal electricity generation as well as businesses that have a strong market presence in Australia. The paper concludes by commenting on the potential for governments to raise additional revenue through a rent tax and then passing on the benefits to society by possibly reducing personal and company rates of income tax.


On July 1, 2012, the Australian Capital Territory imposed a land tax on all commercial and residential property on a progressive basis, with marginal tax rates applied to increased land values. As a result of this, there was an increase in government revenue which allowed the Territory to reduce the stamp tax on real property conveyances. The article concludes that this approach to the abolition of the stamp tax and the abolition of the land tax on all property should be eventually adopted throughout Australia.


This is a private sector examination of value capture that might be important to a theoretical analysis for the public sector. Private profit-seeking always occurs within an institutional context. This forces the theorist to recognize that value created and value captured are distinct concepts. Moreover, value captured does not necessarily have to be
created by the party capturing it, as unproductive and destructive forms of entrepreneurship demonstrate. Similarly, the creation of value often does not accrue to its creator. Social entrepreneurship is proposed to be the creation of an organization that results in a sustained social equilibrium. As such, the concept focuses exclusively on value creation, neglecting value capture at the organizational level, and is divorced entirely from any requirements of financial sustainability. This conception is unsatisfactory.

McNab, Jane and Jacqueline Tuck (n.d.). How the reputation of Georgists turned minds against the idea of a land rent tax. Australia, University of Ballarat: 22.

This paper discusses the reputation of Georgists generally and compares it with the behavior and activities of one specific Georgist organization, the Melbourne-based Prosper Australia. The paper notes that while Georgist organizations have been promoting land taxes for over 120 years, they have been largely been seen as marginal to any serious economic debate. The paper concludes that members of the Georgist movement see a simple, logical ‘big picture’ system, while economists seem to be saying that things cannot be that simple. Because Georgists generally appear to have not understood how to relate across the divide, they have largely been discarded from mainstream academic and policy debate.


Investments in transport thus need to seek new paradigms to obtain financial resources. Accessibility is a pivotal element in this context because it may induce increases in land value whereby some or all of these increments in land value resultant from the increase in accessibility can be captured to recover the capital costs of a transport investment. This paper reviews the main land value capture finance (LVC) mechanisms (betterment tax, accessibility increment contribution, and joint development) in relation to increased transport accessibility. We conclude that, for the successful implementation of a land value capture finance program to take place, we must always consider the context in addition to the economic relationship between the life cycle of the transport system, its profitability and the property market.


Cities have been experiencing escalating growth, especially in developing countries, with often consequential negative impacts related to transport and, in particular, of car mobility. Urban mass transit systems are capable of providing capacity and competitive levels of service for a large proportion of urban travelers. Their impacts of increased accessibility, i.e. the increase in land value, can be captured, and returned to the society from which the investment has been sourced. This chapter reviews how different
mechanisms of land value capture (betterment tax, tax increment finance and joint development) can be integrated in order to finance urban mass transit systems.


This chapter analyzes four models of financing urban heritage brownfields: public-private partnerships, land value capture, urban development funds, and impact investment funds. In discussing land value capture, the author argues that it can be used to finance a broad range of urban development and regeneration project types, including in historic districts. Further argues that land value capture is equitable and can be progressive. It can facilitate the development of abandoned or underutilized urban properties along with discouraging urban sprawl. However, an annual levy on land value may instigate price spirals and distort land supply, which could be a significant problem in developing countries with high inflation and low economic growth rates. Gives case study of row houses in Istanbul, Turkey.

Medda, Francesca Romana and Marta Modelewska (2011). Land value capture as a funding source for urban investment: The Warsaw metro system. Warsaw, Poland, Sprawne Panstwo Program, Ernst & Young: 68.

Infrastructure demand in Central and Eastern Europe has been growing rapidly, notably in the urban transport sector. One innovative and increasingly accepted way to fund public transport is through Land Value Capture finance (LVC). In this report the authors show how the fiscal reform and urban infrastructure investment concepts are significantly connected. Urban infrastructure investment induces increases in land value, thus it is possible to recover the capital costs of urban investment by capturing some or all of the increments in land value resultant from the investment. This may be accomplished through a fiscal mechanism such as land value finance. Fiscal decentralization reform, based on the subsidiarity principle, may be the pivotal point in the implementation of land value capture in Poland because the revenue generated by land value capture can be earmarked by local authorities to fund urban expenditure. In our case study, we estimate the capitalized evaluation of the extension line 2 in Warsaw by calculating the effect of metro access on property price in two selected districts in Warsaw: The capitalization benefit of the metro access is analyzed through hedonic price modelling. In both districts, the presence of transport infrastructure has a positive impact on house prices.


This analysis extends the role of land as a factor of production by examining land as a gift that bestows and offers determinations of our “being.” Uses the enclosure movement in England as an example. Article address theological and economic dimensions and demonstrates that land understood as gift is consistent with certain
theological positions. Land is considered a divine gift which the author correlates with George’s understanding that land is given and economic practice cannot assume unilateral human ownership of it. If land ownership has profit as the validation of its speculative practice in seeking gain in land value, then its alternative lies in redirecting the increment of this value. Concludes by showing how George’s political economy of land taxation fits within a theological understanding of gift.


This article, analyzing Ricardo and George, examines land as a factor of production and concludes that land as an entity classifiable as property and capital is misunderstood in the history of political economy. Rather, land’s ontological role in its bond with nature (derived from Heidegger) argues that economics needs to account for it in a new way. Then a land value tax is analyzed in this new way, concluding that if economic rent arises because of use, the use of rent as a form of public revenue falls into the category of counter-gift, which can be used in such a way that takes the being of land into account. This also forces a redefinition of the concept of land ownership.


This paper presents an overview of practices and challenges related to financing green sustainable cities. Cities are key investors in infrastructure with green potential, such as buildings, transport, water and waste. Their main revenue sources, such as property taxes, transport fees and other charges, are based on these same sectors. At the same time, increased public constraints call for a mobilization of new sources of finance and partnerships with the private sector. This working paper analyses several of these sources: public-private partnerships, tax-increment financing, development charges, value-capture taxes, loans, bonds and carbon finance. The challenge in mobilizing these instruments is to design them in a green way, while building capacity to engage in real co-operative and flexible arrangements with the private sector.


Value capture programs allow government to fund transit construction and operation, finance transit-oriented development, or initiate infrastructure efforts that make private development possible. Methods of value-capture include land acquisition and joint development projects in which public and private resources are used for a development that benefits both sectors. Some transit agencies acquire parcels near future station sites that they later lease to private businesses. Case studies of Washington D.C. and Atlanta.

This PowerPoint presentation discusses the requirements for Smart Growth financing, identifies the increased costs and risks of smart growth, discusses three time tranches of financing, and demonstrates how value capture techniques and options can be incorporated in smart growth financing.


This chapter identifies some of the characteristics of an effective and efficient property tax system: long-term tenancy; unique identification of property parcels and those who hold the rights to the property; a scheme for the evaluation of the parcels; a method of collecting the tax; and enforcement mechanisms. It notes that the meeting of these characteristics pose various degrees of challenges for transitional and developing countries. The authors then briefly examine Estonia, Latvia, Lithuania, Russia, and Ukraine with respect to these characteristics. There are specific comments on land value evaluation.


This paper takes an initial look at the potential role of value capture and other innovative measures in underpinning transit infrastructure expansion. This paper reviews some of the basic prospects for value capture and financial innovation for future transit infrastructure provision within Australia - set against a benchmarking of the level of funding that innovative financial mechanisms have provided to selected transit infrastructure projects internationally in recent times.


This is a biographic article on an Australian economist who was a follower of Henry George and applied George’s work to Australia. It contains a detailed description of a land-value tax and its implementation.


This paper, written in Italian, investigates land value capture as a technique to finance transportation infrastructure. Assumes that the externalities of increased property value can be monetized through their impacts on the value of land. Three case studies (TIFs,
Copenhagen, and Umbria, Italy) are analyzed to discover the strengths and weaknesses of this technique. Note: only part that is in English is the abstract. The rest is in Italian Mirrlees, James, et al. (2012). "The Mirrlees review: A Proposal for Systematic Tax Reform." *National Tax Journal* **65**(3): 655-684.

The land value tax is discussed as part of a comprehensive tax reform package for the UK. The study makes a strong case for a land value tax (which is identified as a tax on pure rent). Suggests that for businesses, a land value tax for business and agricultural land should be implemented (noting that there are currently no land value taxes on business in the UK). The land value tax on business would replace the corporate income tax and taxes on the value of business property. The study does note the importance of administrative feasibility.


This chapter explains the development of land secured financing (sometimes called land-based financing or dirt bonds) following California’s Proposition 13 in 1978. It defines land-secured financing, as understood in California, as a means of raising money for public capital improvements and sometimes services by requiring a set of property owners, usually within a specific geographic district, to pay an annual (or sometimes more frequent) amount of money as their share of the project’s cost. This chapter reviews the creativity, politics and reactions to this tool in California.


This research explores whether policies and mechanisms that work well in other countries might be introduced or adapted to help unlock land supply and therefore new housing delivery in the UK. It partially concludes that given that permission gives a large increase in land value in many circumstances, the case for some form of capture, particularly to pay for other sources of uplift such as infrastructure provision, is strong. Even so, land value capture works best in periods of economic growth, and is difficult or impossible when land values are falling. However, it is not related to ability to pay and has proved extremely difficult to implement over the economic cycle. A particular problem is that in old age many homeowners are income poor and property rich which is a disadvantage. A further drawback is the difficulty of estimating the unimproved value of land that is already developed.

Series of articles (in one journal--Progress), all supportive of land taxes and value capture. Mostly focused on Australia. Range from infrastructure finance to environmentalism to Australian history of land taxes.


Beach nourishment projects are common methods for coastal states to protect beaches and property from the natural erosive process. However, while the beneficiaries of beach nourishment tend to be local property owners and recreators, projects are typically funded at the state level. Based on the benefit principle, as local residents receive more of the erosion protection benefits of the nourishment projects, we estimate a value capture tax, designed to levy the financing burden in a manner that approximates the distribution of benefits. The benefits of nourishment projects to coastal property owners are estimated using the results from a spatial-lag hedonic model that controls for viewshed effects.


There is a good stock of theoretical and empirical knowledge to address various urban transport problems, leading to important policy insights and practical policy measures. These are useful and potentially effective to address the transport problems in Asian megacities. However, the urban transport condition in these megacities is continuously degrading. Concludes that value capture schemes should be adopted to finance transit projects where possible.


Offers a realistic appraisal of “duplicitous” behavior of real estate developers (who are called entrepreneurs) in the context of the modern regulatory state. Argues that successful real estate developers must become “political entrepreneurs” if there are to complete their projects in a timely way and capture business profits. Also argues that for George, the moral question of monopoly profits was as important as economic mechanisms. Describes the Henry George Theorem as an equilibrium in which the region’s total utility is maximized within an optimal population has moved to the neighborhood of a CBD. A scientifically engineered land value tax is levied to finance the infrastructure improvements that provide those same taxed individuals with the financial means to pay the tax.

The article reinterprets the Henry George Theorem in terms of entrepreneurship. It claims to offer a realistic appraisal of the duplicitous behavior of entrepreneurs in the context of the regulatory state. The author argues that the Henry George Theorem makes the political entrepreneurship of real estate developers intelligible. Concludes by arguing that not all gains in real estate come from the "brainless speculator" holding on to land--but rather that speculation is an important part of the entrepreneurial process.


Cities around the US are promoting redevelopment efforts in central city neighborhoods in order to foster more-sustainable development patterns. This paper argues that such plans must be grounded in an assessment of the current conditions and existing populations in these neighborhoods. Taking the existing community into account would change the calculation of public costs and benefits. Benefits would incorporate the value of retaining and building on existing strengths of the community. While the increased intensity of development would produce the same type of fiscal benefits, the amount of these benefits would likely be less, since redevelopment would be more likely to minimize demolition of existing structures and would require some value capture in order to subsidize housing affordable to current residents. A case study of the planning process for a transit-oriented redevelopment plan for a central neighborhood in Austin, Texas, illustrates the difference between current approaches and an alternative approach.


New public transport investment can improve accessibility for existing and new users of the urban transport network and this can lead to land value uplift with uplift benefits being distributed in relation to the proximity of the location of the property to the infrastructure. This paper quantifies land value uplift and its spatial distribution for accessibility to different destinations for residential properties around a new-build Liverpool Parramatta transitway for buses in a suburban area of south-west Sydney, Australia. Geographically weighted regression (GWR) is used to take account of spatial dependency in the estimation process with the results being presented in map form. The analysis has demonstrated significant spatial variation in accessibility benefits suggesting that a uniform land value capture tax would give rise to significant winners and losers, relative to the land value uplift experienced. The distributional effect of a uniform tax would need to be carefully investigated as it could be highly regressive, highly progressive or neutral depending on the socioeconomic characteristics of the areas benefiting from uplift.
This report presents the results of a rapid, screening-level, equity-based health impact assessment of funding tools being considered to support transportation expansion in the Greater Toronto and Hamilton Area (GTHA). The screening exercise involved reviewing each proposed revenue tool according to health evidence related to the following criteria: 1. Promote health of the whole population 2. Promote health equity. The report finds value capture as being positive or neutral in promoting the health of the whole population and negative and neutral in promoting health equity.


After noting that private rail companies in Hong Kong, Tokyo and Singapore have made substantial profits without assistance from government, the chapter analyzes the value capture techniques that were implemented, highlights the characteristics of the new town codevelopment cases selected, examines the market location shifts and land value changes that occurred along the case corridors and draws lessons for other global city regions to help them finance megatransit projects.


Discusses value capture as a tool to help finance California's High Speed Rail Project.


Investment in California’s proposed High-Speed Rail (HSR) system has been justified partly on economic grounds, as a potential stimulus to employment and income growth. However, international experiences raise questions about the net economic development impacts of these costly mega-investments. This paper examines job and labor market profiles of 26 proposed HSR station-areas in California in 2002 and 2008. These trends are compared to experiences around Shinkansen HSR stations in Japan. Empirical findings on corridor-level job distributions, cross-industrial typologies, and station-level density gradients suggest that the new HSR project is likely to induce knowledge- and service-based business agglomeration benefits, though these are mostly limited to large, globally connected cities. Growth can also shift to HSR-served edge cities, airports, and
leisure-entertainment hubs. Such shifts, however, could be at the expense of small intermediate cities. Four policy responses are recommended in this regards. Value capture practices should promote local land development objectives (e.g., improve livability), discourage excessive levels of rent-seeking investments, and maximize long-term profits.


With a finite, limited supply of land near High Speed Rail (HSR) stops, rents and property values will rise as companies bid up the price of doing business in these preferred locales. HSR authorities should aggressively pursue joint development opportunities to recoup the costs of mega-transit projects from the accessibility and agglomeration benefits that would be capitalized largely into commercial land values near major intercity terminals. Properly designated value capture applications for HSR projects could balance global corporate profits and local public interests, discourage excessive levels of rent-seeking investments, and maximize long-term revenue streams by encouraging high-density, mixed-use, and amenity property packages around HSR terminals. Useful lessons can be drawn from experiences in Hong Kong under its Rail+Property program.


Although sometimes using value capture at the firm level and value capture at the institutional level interchangeable, this article has useful definitions and conceptual frameworks. Value creation comes with a firm and region’s ability to participate in and attract value-added activities demanded in international markets. Value enhancement refers to the processes of industrial upgrading and technological learning enabled through ties to global production networks. Value capture occurs when local institutions and non-firm actors are able to retain and channel the resources created into investments vital for long-run regional development (e.g. infrastructure, schools). For value capture to become more widespread, significant and sustainable, Bolivian policy makers must develop institutions, capacity-building initiatives and policy strategies that are tailored to the needs and realities of the firms operating within a particular type of production network.


This Master's thesis discusses land value taxation as a potential reform of the traditional property tax. It attempts to examine the viability of this tax reform as an aid to economic
development. Using 1990 and 2000 census data, it attempts to determine if the theoretical effects of land value taxation occurred in three case studies of Pennsylvanian cities. A categorical examination of ten variables revealed that the theoretical expectations matched observations in only one instance.


Finance mechanisms that capture the externalities of transportation activity are well known but not often employed. Some capture positive externalities: new transportation activity often increases the value of surrounding properties. Land value capture seeks to expropriate a portion of that increase and reinvest it into transportation improvements. Taxes or fees are therefore levied on landowners who will reap partial benefit from the improvements. These owners are often identified based upon the predominant mode for accessing the improvements. As governments find it more difficult to secure the revenue necessary to fund transportation improvements, they will move toward other mechanisms that are better at capturing more of the cost, including value capture. A government’s ability to employ these emergent mechanisms will be a function of political plausibility, administrative capacity, and transaction costs.


The trends in urban car use are now demonstrating a new phenomenon where a peak has occurred and rapid declines are setting in. The need for urban designers and planners to change their practice is suggested. Among these suggestions is to ensure that quality electric transit is the key facilitator of future urban growth. A new factor in ensuring this happens is ‘value capture’. This concept also is not new, but it is still rare in most cities, who do not see the benefits in private sector involvement in funding, building and even operating mass transit. The increased value in land around stations of between 20 and 50% is hypothecated from land taxes at local, state and national level, and directed into the building and operation of the transit system. In this way an integrated system is guaranteed.


The Doncaster Rail Accessibility and new funding options project has two parts: the first is an assessment of the accessibility benefits associated with ten different scenarios for providing public transport in the Doncaster corridor along with value capture funding opportunities; the second is an analysis of the prospects and possibilities for a Doncaster rail system using the best scenario. The key findings for value capture in the report
This new high quality transit catchment area will significantly improve in land value as a result of the monetized accessibility benefits of being within the catchment. This increased value can be captured by new funding practices that ‘ring fence’ and hypothecate some of this increased land-based tax revenue into a Fund to help pay for the transit.


The trends in urban car use are now demonstrating a new phenomenon where a peak has occurred and rapid declines are setting in. Some of the causes of peak car use are suggested, but more importantly the need for urban design and planning to change their practice is suggested. This should include: first, not increasing road capacity and using the road space freed up for sustainable transport improvements, especially walkability; second, planning for 50% reductions in cars with all the growth being electric vehicles; third, ensuring quality electric transit is the key facilitator of further urban growth and is tied into it through value capture; and fourth, facilitating green urban renewal as the main game in urban planning to achieve the polycentric city. In particular, for part three, a factor in ensuring this happens is ‘value capture’. This concept is not new, but it is still rare in most cities, who do not see the benefits in private sector involvement in funding, building and even operating mass transit. The increased value in land around stations of between 20 and 50% is hypothecated from land taxes at local, state and national level, and directed into the building and operation of the transit system. In this way an integrated system is guaranteed.


This paper explains, in Section E, how value capture techniques can influence the possibilities of successful public-private-partnerships, around rail based, transit oriented developments. These techniques can then help pay for the rail system. Argues that building a rail line entirely as a transportation device by the public government might mean that there is no consideration of integrating rail use and land use as a way of paying for the system. Concludes that for TODs, contracts need to be created between all parties that tap into the land value associated with the transit system. This creates a mutually beneficial relationship.


If rail is going to continue to grow and car use to decline then a range of sophisticated value capture mechanisms will be needed for each city to make the most of this opportunity for funding. One new approach is value capture. Rail infrastructure increases
land value due accessibility benefits. This value can be captured and used to help fund the infrastructure. There is a five-step process for value capture.


This chapter describes the changing patterns of private and public transport and the key criteria that should underpin public infrastructure investment. This contribution analyzes new approaches to valuing infrastructure, including agglomeration benefits and avoidable land development costs. It also describes how value capture models could recognise the private benefits of the public provision of infrastructure and draw on those to help fund appropriate levels of delivery.


The new term ‘Development Assisted Transit’ (DAT) describes the process whereby land developers fund all or part of the cost of the transit service integrated into the TOD, in return for which they earn extra income from the enhanced value of the properties there, given their closeness to transit. The idea of value capture lies behind the concept of DAT but is also used for any infrastructure or amenity improvement. Governments, businesses and home buyers all recognize that an address near a transit station is a good one, and the value of such property rises accordingly. If the land is zoned for higher-density residential use or mixed use the value can be even higher.’ And this can be used to help finance not only the development of mass transit through DATs but also special community services or social housing due to the extra value in the land provided by the transit

Nie, Sisi (2013). Land Value Capture through Market-Oriented Public Land Leasing: The Case of Metro System Finance in Changsha City, China. Institute for Housing and Urban Development Studies. Rotterdam, the Netherlands, Erasmus University. MSc: 75.

This research mainly focuses on one land values capture instrument, public land leasing. This research examines China, which introduced a market-oriented land leasing mechanism called bidding, auction and listing leasing system. This research intends to examine land markets with different land transfer methods in Changsha city. This research is descriptive research, which intends to comprehend how market-oriented public land leasing performed. There are three findings. First, bidding, auction and listing leasing approaches abide by market rules and generate more revenue than other means. Second, land value can be affect by metro implementation, which precisely matches the notion from land value capture that government sharing the incremental land value for
public goods is feasible. Third, land revenue is adequate for current metro construction; however, for a long-term metro project, land revenue is not enough and financing diversification is necessary.


This chapter formally explores the structure and characteristic of land value taxation, particularly its effects on economic decisions and outcomes. It concludes that the full burden of the land value tax falls on the owner of the land (and no one else) and that a land value tax does not distort economic choices, implying there is no excess burden and the timing of development is not affected.


Uses the land tax as a possible solution to some problems associated with Rawls. Argues that the Henry George single tax requires each person to compensate the rest of the community for the harm caused by depriving them of the use of natural property taken. Further shows that the basis for a land value tax extends beyond this reciprocal argument, since it is the most efficient form of tax and the value of land is influenced by government activities. Also argues that at least a major portion of the proceeds of a land value tax should be used to fulfill moral obligations to the poor.


This report focuses on exploring innovative transit funding solutions for Cleveland, and other Ohio cities. One possible way to finance much-needed transportation projects is through various value capture taxing methods. City projects are funded over time through increased property values within the project’s established impact area. Some of the value added to properties within the impact area, which is the direct and indirect result of the city’s investment, is “captured” through special taxes. Depending on the type of project, the amount that property owners pay in value capture tax is abundantly offset by the increases in property values. If no value is added, no additional tax is collected. For this reason, value capture has the greatest success in areas that are underutilized and exhibit high potential for increased property values. Rust Belt cities could even purchase the land themselves, build the improvement project, and then sell the same land at a higher price.

This book discusses several financing options for Transit Oriented Development. There is a long discussion of value capture techniques and several case studies illustrating these techniques. It notes that value capture mechanisms are typically established by a local government in accordance with state law. They sometimes require a vote by the affected property owners. Depending on the tool, value capture can entail the creation of a new assessment, tax, or fee (e.g., a special tax or development impact fee); the diversion of new revenue generated by an existing tax (e.g., tax-increment financing); or a revenue-sharing agreement that allows a government agency to share some of the revenue generated by developing publicly owned land (e.g., joint development). Value capture tools are generally most applicable to strong real estate markets because they depend to some extent on new development or property value appreciation to generate revenue.


Since OHRHA (Optimal homelessness reducing home allowance) is a Pigovian subsidy, it should be financed like any other Pigovian subsidy—by a lump sum tax—a land value tax. Currently, Calgary taxes both land and improvements. A land value tax falls only on land and exempts improvements. The appeal of the land value tax is that it does not distort decisions. To non-economists, the appeal of a land value tax is fairness—the land value tax makes you pay for what you get, not what you give. The fairest land value tax to finance OHRHA is on the value of the increment to land value that OHRHA causes. A tax proportional to the land value increments will raise the full cost of OHRHA and still leave landowners better off than before OHRHA.


This research examines the growing connection between housing and transportation. During this time as cities propose and implement more advanced transit networks, they are simultaneously seeing a growing need for affordable housing. This research looks at Tampa, its identified peer cities and their policies and programs that support transit-oriented developments and affordable housing. Price-Waterhouse Coopers’ statements on the relative inexpensiveness of land now, and the greater investment promise of infill sites points the way to programs based on tax increment financing (TIF), overlay districts, and value capture.


This research investigates the influence of land in the total profit obtained by developers from social housing projects that are subsidized by government. This research is
quantitative and exploratory, with case studies (eight projects) about Techo Propio, a Peruvian social housing program. The research question asks if the profit because of the land strategy (to buy a plot and wait until the price increases without doing anything else) is greater than the profit because of the project itself (the cash flow obtained for the effort to sell and build dwellings). The methodology consists mainly in the use of discounted cash flow analysis as a financial tool to explore the profitability of each project. Using the selected indicators, the findings show that only three projects out of eight have greater unitary net present value because of land than because of the project itself. A land strategy based only on buying a plot and waiting time to increase its price is not possible in Lima.


Author's abstract states that they do a review of property development as a way of funding in the form of value capture solutions to finance infrastructure. Available only in Norwegian.


This conference paper uses a linear programming model to estimate effects of an agricultural land tax in South Africa. The results indicate that the implementation of a land value tax of 2 percent has only marginal effects on land use and output supply, with the highest effects on irrigated farming. Concludes that the land tax must be dynamic with respect to the market value of land in each community and should not be general but rather related to variables that affect land value (e.g., fertility, natural resources).


This is a programming model for land use changes and output supply responses to an agricultural land tax in South Africa. The model finds that the changes are marginal; however, it also finds that if a land tax is levied, it may discourage investment on irrigation facilities and there may effect irrigated farming. This is a non-econometric approach.


This chapter argues, in an Irish context, that there should be a tax shift from taxes on human labor, profits, transactions and capital to taxes on natural resource use with redistribution based on equity. It concludes that the final paradigm shift to a universal land value tax (for local governments) will be achievable.

This paper examines the possibility of reforming housing taxation in the UK. Under the assumption of looking for a neutral tax, the authors discuss land value taxation in the form of an annual tax on the rental value of land in its prevailing use. They argue that under a land value tax, unearned economic rents would be taxed with no exemptions, while structures and developments on land would be untaxed. A land value tax would be progressive with respect to wealth but regressive in terms of current income. Designing and implementing this tax would involve resolving some major practical and technical problems, including a revaluation of all land in the UK. It would also face major political problems.


This article explores the political mechanism of financialization, by drawing upon an ethnographic study of economic development in two Rust Belt cities and analyzing usage of tax increment financing (TIF), a practice that allows cities to securitize projected increases in property tax receipts and create bonds similar to structured asset-backed securities (e.g. mortgage-backed securities). TIF structures other roles that development professionals play by giving them incentives to use TIF in ways that are not aligned with the city’s fiscal outlook and lock them into ever-higher rates of TIF spending. This analysis illustrates a recursive relationship between financialization and the state.


This thesis addresses the question of what happens when the value of a significant public investment can be captured by the private market to limit equitable access to this public good. Living in walkable, transit-accessible neighborhoods has many economic, health and social advantages. Yet, as demand for housing in this type of neighborhood increases, low-income people can be “priced out” of these desirable locations. Over the past decade, a growing number of partnerships made up of non-profit organizations, private foundations, and public agencies have turned to Transit-Oriented Development (TOD) land acquisition funds to preemptively preserve affordability in future transit station areas. This thesis examines the role of land acquisition near transit through three case studies: Denver FastTracks, Atlanta BeltLine, and the Boston Fairmount Corridor.

Finding resources for infrastructure is part of government planning and budgeting. Pricing is the key element to funding infrastructure policy. There are two types of infrastructure deficits. One is inadequate investment, the other is inadequate maintenance. The infrastructure deficit accrued because of neglect and bad pricing signals. It’s politically painless in the short term to neglect spending funds on infrastructure maintenance, leaving the consequences to the next administration. Possible solutions include adopting value-capture tools.


This study evaluates the current environment for mixed-income transit oriented development along DART rail within the city limits of Dallas. A University of North Texas study in 2007 evaluated land value increases proximate to DART rail stations and attributed $4.26 billion in development generated by 20 TOD around DART projects from 1999 through 2007. These numbers are significant when considering the concept of value-capture, where funding for transit and its related infrastructure can harness the increase in land value for paying for operating costs associated with rail.


This article discusses the potential for a land tax to increase revenues for local governments in Australia. This is done in the context of a set of recommendations for reform of the Australian tax system, both at the national and local level.


Central Corridor Light Rail Transit (LRT) in Minneapolis and Saint Paul will open for service in 2014, and is expected to spur new housing and commercial/retail/office development along the length of the line, some of which is already happening. Preserving and providing affordable housing along the Central Corridor Light Rail Transit (LRT) line is a concern of a variety of organizations. Of the strategies recommended for encouraging mixed-income transit oriented housing are two that involve value capture activity: public private partnerships in which zoning incentives (density bonuses) are used to create value and value capture activities to help finance the housing and infrastructure activities.

This book examines the financing of local capital investments. There is an extensive discussion of value capture in Africa. Argues that ensuring that the locality recovers a portion of this surplus is morally justifiable and economically vital because doing so permits financing of future capital investments. Among the chief methods to capture land value, three methods seem likely to find use on the African continent, separately or simultaneously depending on the context: (1) direct land transfers, (2) direct contributions from owners or developers, and (3) land added-value taxation. This last has the reputation of being complex to implement and collect, but there are cases in which these taxes can become both effective and well accepted.


This article, entirely in Portuguese but with an English abstract, discusses tools for value capture in Brazil. It discusses the history of the Betterment Tax (coming from the Philippines Ordinances in Portugal.) The ultimate modification in Brazil is making it more of a Brazilian tax, with a management dimension.


The 2010 TRB conference was entitled “Forging a sustainable Future—Now!” The topic of value capture arose in a few areas. The conference identified several value capture issues that may be worthy of future research. For example, benefit–cost analysis can be designed to capture nontraditional issues such as livable communities, economies of agglomeration and densification, health and lifestyle choices, and spatial and social distribution. There are ways to capture the value of increased real estate development as a benefit associated with livability.


This book examines capturing land value gains for public investment. Argues that land values are highly sensitive to infrastructure investment and economic growth and that public works are immediately capitalized into surrounding land values. Book examines the practical workings of land-based financing in different country settings. Also notes risks of these techniques.


Government entities in India hold large amounts of public land including some of the most valuable property in the country. Parts of these holdings are vacant or underutilized. Public sector bodies also own large blocks of land that sometimes stand in the way of
efficient completion of urban infrastructure networks. At the same time, urban India is deficient in basic infrastructure. This condition raises fundamental questions. Are some of government landholdings “surplus” or not needed. There is a possible use of value capture techniques in these circumstances.


This paper examines how the concept of “value capturing” has been applied in some developed and developing countries to put together funding for urban development and urban transportation. This paper conducts a literature review and discusses various aspects of its applicability in the context of Vietnam. Ho Chi Minh City requires finding new means to finance capital investment on transportation, particularly public transit systems and value capture offers a good opportunity to achieve these goals.


This article discusses alternative perspectives on competition and industrial policies (IP) in theory and in practice and critically assesses recent European IP in this context. It develops a new framework for IP that emphasizes the sustainability of value creation at the firm, meso and national levels, and explores its implications for IP in general and European IP in particular. IP suffers from various limitations. First, innovation is seen as the near exclusive determinant of value creation. Second, the sustainability of the value creation process of the system-wide level is not discussed. Third, value capture by economic agents and its impact on the sustainability of value creation is all but ignored. Value creation need not automatically imply value appropriation or value capture. To capture value, firms (and also individuals and nations) pursue a panoply of value capture strategies. The pursuit of value capture by one agent may impact negatively on the ability of another agent to further his/her objectives.


Although this is primarily written from the perspective of the private market, it does note some concerns about the value capture approach that might be applicable in the public sector. For example, the pursuit of value capture by one agent may negatively impact negatively on the ability of another agent to further his/her objectives, thus raising agency issues. The paper’s discussion of value capture extends the existing neoclassical and resource-system perspectives. It also argues that innovation incorporates sustainability and value capture characteristics that could help marry value capture to sustainable value creation. It suggests that the theory of value creation not only requires a synthesis of
resource allocation and resource creation but also the identification of the requisite power structures that allow value creation not to be prejudiced by value capture.


This article explores the scope for cross-fertilization between extant alternative organizational economics perspectives on the private–public nexus. It is suggested that there is substantial scope, which has gone underexplored. The comparative advantages are highlighted, and a synthesis and extension of apparently competing perspectives is provided. Addresses the co-evolution of organizational value capture, value creation, and sustainable advantage. Furthermore, the article explores the implications for public–private links that foster sustainable system-wide value creation and concludes by pinpointing limitations of organizational economics as a whole and the need to leverage a multi- and cross-disciplinary perspective.


This chapter first defines fairness as being based on ability-to-pay and concludes that progressive tax systems are generally viewed as fairer than proportional or regressive systems. It argues that the statutory tax burden of a land value tax is borne by landowners, and if a land value tax is substituted for a traditional property tax, the land value tax will increase the tax burden for owners of land-intensive properties. Finds that empirically there are a limited number of studies that examine how replacing a traditional property tax with a land value tax would shift the tax burden, and these studies do not have consistent results. Concludes that more studies are needed.


This article examines replacing a uniform property ax with a land value tax. Using a Texas county as a case study, the paper finds that a revenue neutral replacement would shift the tax burden away from single family dwellings to other properties, with the average tax liability falling by about 30 percent. The land value tax would be slightly more progressive and tax capitalization would occur.


This report is an attempt to apply benefit fees to finance transportation infrastructure. In addition to using increased user fees (with vouchers for low income riders), the paper also advocates value capture as a largely untapped source of transit finance. The paper believes that value capture is most applicable to rail transit funding.
The objective of this paper is to explore additional ways of private financing of flood protection projects in developing countries, in order to increase the implementation pace of such measures. Value capturing policies are generally used in financing transport infrastructure and services, so their application to flood protection will be based on an attempt to fit certain policies to match flood protection projects. The proposed framework will be based on exploring the project delivery methods used in the Pevensey Coastal Defence project in the UK, the only known flood protection project developed under PPP worldwide. Value capturing will attempt to answer three main questions that can be indirectly found residing in the research questions: What values are created through the implementation of an infrastructure asset? Who is benefitted from the created value? And how can governments use these values in their benefit?


This paper argues that recessions can create a positive case for wealth taxes, including a form of land tax. It asserts that there is likely to be a close relationship between land and housing values and that taxing housing might be a reasonable proxy for taxing land values. Quotes others as arguing that much of the rise in land values comes from communal rather than individual actions, and thus land taxes are justified. It also argues that wealth taxes are consistent with a revival of interest in Keynesian economics.


This book discusses the concept of the stewardship economy—one in which the “natural world” is held in stewardship (land is held in trust) while any artifacts are held as private property. In this economy, fees for the use of land—called stewardship fees—provide income that may substitute for conventional taxes. In this economy, 100 percent of the market rent of land is collected. Also addresses question of how to collect the whole of the market rent without distorting efficient allocation of land as well as how to transition to this economy. Notes that if land value taxation were introduced at 100 percent of the market rent, the market rent net of the tax would be zero as well as market value.


This is a paper from the Henry George Society of Devon. It consists of two sections: the first is a question and answer section that goes deeply into the implementation process of a land value tax. The second is a discussion that addresses the issue of replacing the National Non-Domestic (business) Rates by Land Value Taxation in a two-stage process.
Also included, as an introduction, are the reasons, given by the Exchequer Secretary to the Treasury, as to why a land value tax is not a tenable proposal. Proposal lists many benefits of land value taxation.


This is a work session briefing paper that identifies value capture techniques as ways of ensuring that affordable housing will be provided near TOD stations. It identifies both the responsibilities of the regional organization and local jurisdictions for gathering value capture revenues.


This report provides an analysis of value capture financing methods and tools in Washington State and around the United States for developing infrastructure and affordable housing that support transit investments. The conclusions and recommendations are intended to guide the development of future legislation for new value capture financing tools in Washington. Legal and political challenges are included. Suggested alternative tools to enable value capture are suggested.


George argues that the principal example of value by obligation is the ownership of land, because this merely redistributes wealth from one individual to another.


The current form of the property tax in Poland does not allow capture of an increase of property value caused by public investments. There are, however, special quasi-taxes that have been invented for this purpose. These are the charges on an increase in property value because of 1) changing zoning regulations, and 2) division, or subsequent merging and division of property, or the construction of new infrastructure. Both charges described above are rather problematic tools for the municipalities. It is quite obvious that to apply such “extraordinary” fiscal instruments is politically very unpopular. Also, this form of taxation bears a high transaction cost, since each charge must be based on valuation.


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This chapter discusses the property tax in India, which the author claims raises an inadequate level of revenue for local governments. Some Indian states have moved to area-based assessment—which is assessment based on the physical characteristics of the property, and which has no relevance to the actual or presumptive rent. While this movement was relatively successful in increasing revenues to local governments, it has come into some serious criticisms. There is also some discussion of land value taxation (called site value) as well as some criticisms of this idea.


Article argues that a real property tax is needed for a more rational use of land resources and structures (among other reasons). This tax would lead to the divestment of the existing real property ownership by those who do not pay and would also significantly limit the purchase of property for speculation. It then identifies and describes the Lithuanian land tax, whose base was codified in 1999. It then identifies the benefits of a land tax based on market value. It evaluates the land tax in Lithuania and identifies both some benefits and problems. It then makes Lithuanian recommendations.


The aim is to discuss the changing nature of PPP in the case of municipal-private partnerships in Israel, focusing on the impact of economic downturns on the role of PPP in local development. Our study demonstrates that the meaning of the concept PPP has changed in recent decades, reflecting changing economic contexts and welfare state regimes. Municipal-private partnerships have increasingly served as a budgetary bypass ‘no choice’ alternative, becoming essential for the maintenance of a local welfare state. One tool is value capture financing in the PPP context. The economic crisis since 2008 exposed the blurred boundaries between the public and private sectors, particularly the limits of risk sharing. It also exposed the limits of large-scale PPP contracts in a context of high uncertainty.


This Master’s thesis argues that transit oriented development benefits governments through higher property and sales tax revenues, and also benefits households and transit
agencies through transportation efficiencies for households and higher revenues from increased ridership and development on adjacent land. Notes that transit agencies view ridership and revenues as primary objectives while planners and community economic developers view value capture and community building as objectives; thus, there may be conflicts.


Locational amenities should be capitalized into property prices. Unfortunately, in a complex urban setting, common empirical approaches to measuring the value of proximity can be highly sensitive to choice of subsample and to the parameterizations of proximity itself. This is a direct result of an urban context in which distinct housing submarkets can exist even within small areas. This paper demonstrates that external heterogeneity significant complicates traditional hedonic analysis and may preclude its use in complex urban land markets. The paper proposes a more robust approach that offers a greater degree of confidence in parameter estimates. In contrast to the instability of parameter estimates under traditional models, the more robust, nonparametric approach yields a consistent finding of no significant capitalization of light rail into single-family home values. This result speaks directly to the assessment of value-capture programs in which capitalization is taxed in order to fund investment in public goods.


Sustainable financing is a major challenge for the water sector both in many developing countries where water and sanitation services are still in the expansion phase and in Europe where the water industry is faced with major investments needs. To give more depth to the present policy debate a historical perspective on water services financing is needed. This paper is focused on the financing history of the Paris water infrastructure brought to completion in the 1807-1925 time frame. A variety of financing schemes and institutional solutions (municipal budget - fiscal resources, concession, municipal bond and land added value capture schemes) are identified and described. A deeper analysis is made on the financial flows of Paris’ water, sanitation and canals service over the 1893-1930 time frame. A discussion on the institutional choices and on the long run cost allocation of the chosen financing schemes is made.

The major part of our paper is focused on a detailed analysis of the Milan modern water and sanitation service (WSS) (1888-1924). A variety of implemented financing schemes and institutional solutions (municipal budget - fiscal resources, municipal bond and land added value capture schemes) are identified and described. The financial equilibrium of the WSS is analyzed. A basic overlapping generation model is used to explore how the infrastructure costs have been allocated between the various generations. The last part of our paper adds a long run perspective (1953-2000) to the detailed analysis.


This paper, entirely written in Spanish but with an English abstract, analyzes the administration and participation in Land Value Increments as a policy in Colombia to capture land rents generated by the public sector investments and decisions. Using Bogota as a case study, the author finds that institutional arrangements are leading to isolated procedural management which hinders the policy. Recommendations are made toward the implementation of value capture.


This Inter-American Development Bank report has a brief section on value capture in the context of international trade and its logistics. It uses the concept of a transport chain, which is a series of logistical activities that organizes modes and terminals along a supply chain. The study then discusses a global production network and a shift in how value is created, captured, expanded or retained. Value capture, in this sense, is linked with value creation, and implies the accumulation of related activities at a specific location. Value capture involves getting a higher return in terms of added value because new activities are created. It notes that value capture could have a significant effect on value retention.


A before and after hedonic model is used to determine the property value impacts on properties already served by the transit system caused by extensions to Bogotá’s bus rapid transit system. Asking prices of residential properties belonging to an intervention area or a control area and offered for sale between 2001 and 2006 are used to determine capitalization of the enhanced regional access provided by the extension. Properties offered during the year the extension was inaugurated and in subsequent years have asking prices that are between 13% and 14% higher than prices for properties in the control area, after adjusting for structural, neighborhood and regional accessibility characteristics of each property. Furthermore, the appreciation is similar for properties within 500 m and properties between 500 m and 1 km of the BRT.
Value capture mechanisms such as special assessment districts, tax increment financing, and linkage capture are seen as alternative strategies for funding transportation projects and making beneficiaries of higher land values pay a share of the benefits that they receive from transportation investments. This study assesses existing value capture mechanisms based on three desired criteria of taxation policy: maximization of efficiency, minimization of transaction costs, and minimization of regressivity.


This report from the Schalkenbach organization, argues that a land value tax is a public policy tool that would be very useful in financing levee construction in New Orleans. The author argues that a land value tax would ensure that levees would protect people and property, would speed recovery of the city and decrease the possibility of sprawl. Proposes that the City Council should increase the tax rate on land values, reduce the tax rate on improvements and sales, strengthen land use management policies, and finance all structural flood protection entire through taxes on land values. Finally, the paper argues that land value taxation would function with minimal bureaucracy and would eliminate the cross-subsidy between the general taxpayer and landowners and would shrink the city’s footprint.


Crossrail is a new project that will develop a high frequency rail corridor across London. Within the financial portfolio of Crossrail, £4.1 billion of the costs will be generated by the Greater London Authority (GLA) through the Business Rate Supplement (BRS), a fiscal method based on Land Value Capture Finance. The objective of this paper is to evaluate the effectiveness of the Business Rate Supplement. After having examined the financial consequences of the BRS, a modified fiscal financial mechanism is proposed, which is estimated to yield a greater financial return on the investment. The proposal consists of two separate taxes combined into one scheme: a modified version of the current BRS, and a Stamp Duty levy. The GLA's BRS scheme and the aforementioned proposal are also evaluated using four main qualitative criteria: efficiency, equity, sustainability, and feasibility. Includes literature review.


Discusses land value taxes in the context of mitigating wealth disparities.


This paper defines the human-created commons as arising from public investment and community activities. It asserts that everyone is entitled to benefit from the use of the commons, natural or constructed and that those who use the commons should pay rent. The paper then argues that the commons includes land and the value that accrues to land arising from investments made from the public purse. Everyone should get a share of this added value. One way to begin this process in Ireland is to introduce a site-value tax, followed by a complete land-value tax. One of the paper’s conclusions is that bad tax laws were at the root of the Irish crises and that land-value taxes would stop the speculation-based boom from happening again.


Increasing fuel prices coupled with increasing demand for fuel-efficient cars is driving down fuel consumption, and the associated fuel tax revenues. At the same time, the demand for new transportation infrastructure currently outpaces construction, driving up prices for asphalt, concrete, and steel. This combination of declining revenues and higher costs is causing financing shortfalls. As one effort to bridge this gap, Texas House Bill 3588 authorized the creation of Regional Mobility Authorities (RMAs), which have the ability to apply tax-increment finance (TIF) to capture land development returns associated with land development improvements. This research identified the magnitude of property value increases associated with transportation infrastructure improvements. Using a quasi-experimental design, property values in areas that recently underwent significant transportation infrastructure improvements were compared against nearby control groups. The relative property value increases determine the relative margin of benefit from which TIF revenues may be drawn against.


In the case of the world’s great public transport systems, fares do not fully cover costs. Substantial government subsidies are required to build, maintain, and operate most public transport systems. One of the challenges faced by cities is where this money should come from. An often-discussed option is known as land value capture. The authors’ goal is to use findings from the existing literature to shed light on when and how value capture strategies could be used to finance public transport systems in East Asian cities. We
review three related strands of literature: evidence of the land development impacts of public transport, estimates of land value increases attributable to public transport, and case studies of the use of value capture mechanisms to finance public transport. We then draw upon this literature review to identify specific recommendations for the implementation of value capture in a variety of contexts.


In a situation where property rights are well assigned to the land owner it is problematic to apply value capturing unless the institutional arrangements with respect to the assignment of property rights over the increment in land value will be changed or the parties involved will start a bargaining process to reallocate the increment in land values among them. This chapter offers an analysis of bargaining processes in the implementation of value capturing methods as an internalization mechanism for the externalities by relying on concepts and approaches drawn from game theory.


This paper uses game theory to model the structure of relations between the actors involved in value capturing. The authors consider the implementation of value capture as the result of an agreement between a municipality and landowners to contribute to the costs of public infrastructure development which, in essence, is a form of collective action. The paper not only demonstrates the usefulness of game theoretical modelling in conceptualizing relations between different stakeholders in the implementation of value capturing and suggests the best possible strategy for every stakeholder, it also observes the limitations of the methods in analyzing the behavior of actors involved in decision-making processes with respect to value capture.


This article asserts that the implementation of value capture is often problematic because the instruments used for it are often politically difficult to implement. The authors suggest an alternative approach to value capturing is to stimulate the stakeholders to bargain over the distribution of the increment values. The article presents an analysis of bargaining for value capture based on cooperative game theory in partition function form. They use infrastructure development in the Netherlands and play the game with experts in Dutch planning and infrastructure provision. They find that this is a useful method.

As part of an overall analysis of Detroit’s tax structure, the authors carefully examine the possibility of a land value-based tax. They find that it would generate significant savings to residential property owners at the expense of commercial and industrial properties. It would also have significant implications in terms of shifting tax burdens across property classes as well as within property classes. This latter may improve horizontal equity. Also assumes that the estimated valuation of land is accurate. They conclude the land tax discussion by noting that Detroit has an excess supply of land and residential and business structures, so that it is unclear how property values might respond to a shift to land taxes.


This chapter analyzes town planning schemes (TPS) in India. TPS are a hybrid form of land readjustment and infrastructure finance. In a TPS, agricultural landowners on the urban fringe are forced to give up as much as 40 percent of their land to the government in exchange for compensation. The government builds infrastructure on a portion of the land and retains a portion to sell at auction to raise revenue for the infrastructure. The remaining land is divided into new, serviced plots which are returned to the original landowners who can then either build on these plots or sell them. Either way they pay only one half of the increase in the value of their land to the government as a betterment charge.

Sayce, Sara, et al. (2008). "Local Property Taxation as a Strategic Planning Tool in the UK: Can 'Landvaluescape' Play a Role at Local Levels?" Local Economy 23(3): 208-221.

The UK government is seeking to mitigate the environmental impact of development. The paper considers research into the potential for using aggregated property valuations as a method of monitoring economic health at a national and local scale, by applying geospatial modelling and display techniques. Given advances in the application of modern information systems (including the capture, management and display of geo-spatial data), the authors assess the potential of such systems for the status of relevant data sets in the UK. The paper specifically analyzes land value capture as dependent on Geographic Information Systems and concludes that a pilot project showed success in ten local authority agencies. Uses Delphi Analysis as technique.

This current study supports the conclusion that value capture has significant potential as a financing mechanism and extends its application to a broader set of transportation improvement typologies and situations. Specifically, this study highlights the challenges associated with the use of value capture in an economically distressed area, illustrates its effectiveness to fund public parking within a TOD context, and also demonstrates that value capture can be successfully used to fund highway projects. However, it is also clear that, in some cases, value capture is likely to provide only a portion of an overall package of local funding contributions for a transportation improvement. As the Red Line analysis indicates, areas with a history of disinvestment may pose a particular challenge for value capture mechanisms.


A land readjustment method of land assembly has an extensive international history but is often unknown in the United States. It promises to produce efficient development patterns, maximize value creation, minimize population displacement, fund the construction of project-related infrastructure and public facilities and protect the rights of property owners. Value is created and can be captured. A case is made for the use of land readjustment in urban redevelopment scenarios in Massachusetts. The investigation concludes with a discussion of the distribution of these economic benefits. A financial analysis tool created by the researcher is provided in an accompanying spreadsheet.


New regionalism values social communication over political coercion as a way to motivate inter-municipal, interagency and multi-actor co-operation in metropolitan regions. This analysis of emerging ‘smart growth’ strategies in North America offers a ‘pragmatic’, context-sensitive and critical reading of region-building. Issues at stake involve integral approaches to regional competitiveness, social equity, housing, redevelopment, transport, the environment, and public services. This global set of goals is translated locally into action, resulting in highly variegated regional governance landscapes that reflect both specific socio-political and economic contexts and the historical continuity of urban governance reform processes. Value capture included as a finance technique.


Value capture is one of the seven innovative tools that EPA identifies as being used for TODS. The term “value capture” has been described as a mechanism to capture all or a
portion of the financial benefits received through property value increases, generated by
geographically targeted public capital investments. One value-capture method suggested
is a tax on land values. To achieve this, a “local improvement district” is created and a
special assessment, or land value tax, is levied to pay for costs of station improvements,
public infrastructure, and other amenities that enhance the attractiveness of the transit
station and stimulate adjacent mixed-use development. Other value-capture techniques
can include the use of development fees and joint development.

Seigel, Steven M. (2013). "Community Benefits Agreements in a Union City: How The
Structure of CBAs May Result in Inefficient, Unfair Land Use Decisions." Yale Law School
Student Legal History Papers paper 28(4-1-2013): 104.

Community benefits agreements (CBAs) are hailed by land use reform advocates as an
effective, flexible, inclusive tool for making land use decision-making processes more
responsive to traditionally underserved communities. Using the power of community
organizing to gain leverage over developers as they navigate zoning and other regulatory
chokepoints, CBAs allow traditionally disorganized residents and businesses to extract
benefits and conditions directly from developers. This value capture process, reformists
argue, helps reduce the negative impact of diffuse economic and social externalities that
either cannot or will not be mitigated by the traditional land use regulatory apparatus.


Network public-utilities services, are increasingly considered a crucial factor for the
attractiveness of cities. In fact, the more a city offers high quality services, the more it is
attractive; and the more it grows, the more it needs to provide and expand its service
supply. Efficient services are important factors for the quality of life, especially when
urban size increases and positive external economies might turn into diseconomies of
congestion. If this is valid for urban transport, it is also true for energy provision, water
and waste management. It is always useful to recognize who directly or indirectly
benefits from the positive externalities generated by the development of network public-
utility services in order to ask him to compensate for the benefits through innovative
financing schemes (value capture, scope taxes). Only summary is in English—the rest is in Italian

Shapiro, Perry (2012). Takings and Givings: The Analytics of Land Value Capture and Its
Symmetries with Takings Compensation. Value Capture and Land Policies. G. K. Ingram and

This chapter focuses on the institutional arrangement of compensation/recovery
mechanisms of value capture and the conceptual and practical problems that are part of
any compensatory/recovery mechanism. The chapter then explains efficiency standards,
and analyses a case study of a proposed road that represents a range of public policies,
some of which necessitate physical takings and some which do not. The chapter finishes
with a mechanism for assembling property that ensures all landowners are adequately compensated and that all transfers of ownership are efficient.


This article discusses public-private partnerships as a model to ensure that the infrastructure of urban transportation is provided. It finds that, first, regional investment priorities and public interest considerations are developed. Once this has occurred, individual road and transit PPPs are financed through a combination of private investment, public grants, and land-value capture adjacent to the new infrastructure. Finds that cities in less affluent regions may receive less PPP investment because of relative lack of economic value and the difficulty of recapturing that value. Article finds that PPPs are concentrated in largest and wealthiest cities in a small number of countries and have been an unstable source of funding.


This book is a series of edited chapters discussing both theory and practice of land value taxation. It illustrates how a successful city development can use a reliable source of funding to sustain investment in infrastructure and services, including how local and national governments can use land and property taxation as means of redistributing wealth, creating a better city, investing in infrastructure and ultimately befitting the entire population. Several international case studies are discussed. See also Gdesz.


Introduction to land based taxation and value capture. Sets tone for book.


Regeneration and business strategies are among the tools that cities may employ in order to overcome the challenges that influence their competitiveness. This paper integrates regeneration and property-led business strategies through the development of a hierarchical model for city competitiveness. The methodology employs a Delphi technique and analytic hierarchy process with multi-criteria analysis. Tax based mechanisms influencing regeneration finance through business engagement include a range of initiatives notably Tax Increment Financing, Local Enterprise Growth Initiative, Local Authority Business Growth Incentive Scheme and Business Improvement Districts.

In 1957, Jamaica converted a property tax on both land and improvements to one based only on the unimproved value of land. In 2002, Jamaica reduced property tax rates and added property tax caps. This article analyzes the Jamaican land value tax, with specific emphasis on the rate structure. The new structure leads to notches and discontinuities and therefore inequities. The article proposes several alternative rate structures, discusses the relative distribution of tax liabilities, and then discusses winners and losers under these reforms.


Major infrastructure has to be planned and financed on a metropolitan or regional basis and yet, in few countries do we see a metropolitan or regional government structure. How do you plan and finance infrastructure over a metropolitan area when there are many different local governments each delivering and paying for their own infrastructure? This paper considers some of the models that have been used in selected federal countries to plan for infrastructure on a regional basis and describes a number of tools for financing infrastructure. Value capture is a financing tool that uses the increase in private land values resulting from public investments to pay for infrastructure.


This paper summarizes the findings of more than 100 studies concerning the impacts transit service has on nearby property values, and the feasibility of capturing a portion of the incremental value to finance transit improvements. The results indicate that proximity to transit often increases property values enough to offset some or all of transit system capital costs.


This discussion of the concept of value capture explains its justification and increasing popularity, provides a brief review of its antecedents in Latin America and elsewhere around the world, and illustrates three categories of tools: property taxation and betterment contributions; exactions and other direct negotiations for charges for building rights or for the transfer of development rights; and large-scale approaches such as development of public land through privatization or acquisition, land readjustment, and public auctions of bonds for purchasing building rights.

Urban projects in Colombia, particularly those related to urban renewal, have not been successful in attaining the social goals set by either public policy or zoning. In this paper, the author argues that by using the financial and planning tools considered in the Congress Act 388 of 1997, it is possible to use the rents associated with the use of the land – traditionally captured by private operators – in favor of civil society. Specifically, it is possible to improve the provision of social housing and the supply of urban amenities under the principle of the fair allocation of cost and benefits. The infrastructure costs can be internalized into the projects and the higher land value that is captured can finance social housing as a Pigouvian tax. Additionally, under a Coasian perspective, the use of these tools modifies the property rights system, which allows the agents to maximize their objective functions.


A large number of residential properties were vacant during the study period (at least 5.9%). One hypothesis as to why they remain vacant is the escalation of property values (specifically land values) as housing prices in Melbourne have risen by 180 percent (adjusted for inflation and quality) between 1996 and 2010. It can be argued that a substantial land value tax would serve as a withholding cost and help to blunt capital appreciation. The article recommends an increase in the land value tax to stunt the unearned capital gains that can be realized from speculation and that a land value tax acts as a holding cost, requiring a rental income to cover it.


Non-financial compensation increasingly receives attention in planning practice. Non-financial compensation exists when a government compensates a person or company with an interest in land for the loss of one or more of his property rights therein by creating a new property right that he can either use or sell. It also exists when a government provides an incentive for developers to realize certain planning goals either on their land or on the land of others and the government does not directly subsidize that realization but creates a property right that they can use or sell when they have realized the goals. The paper elaborates on why government has to and wants to compensate and why government can recapture added value in spatial planning cases.

Looks at value capture (only as a sub-interest) in the context of increasing land values from CO2 reduction through planning design. Uses Christchurch New Zealand as a case study. Pessimistic conclusion that redevelopment opportunities will be undermined.


This Master’s thesis analyzes land value taxation and its relationship to smart growth policies. It argues that moving to a two rate tax, with an increase in land tax and decrease in tax on capital, will lead to infill, compact and dense development, affordable housing, distinctive neighborhoods and mixed use building. The thesis concludes that a land value tax has advantages over traditional economic incentive programs—for example tax increment financings and abatements. It further argues that for success, land value taxation needs proper zoning and land use controls.


This chapter identifies the elements of land use planning systems and explores the main issues involved in efficient, fair and accountable regulation of development. The discussion is based on current practice in Australia. The chapter has a brief discussion of the land development process—how private developers make judgments about whether and when to proceed with projects. There is a boom and bust cycle which often affects land development markets and complicates several aspects of urban systems management. Chapter discusses why betterment occurs, including discussion of regulated supply of permits. There is a discussion of principles underlying application of development contributions (a concept similar to betterment). Puts betterment fees in context of boom-bust cycle.


The sphere of municipal taxation was, in India some time ago enlarged to include taxes on land values; however, with the exception of a few local bodies in Tamil Nadu, little progress has been reported regarding the levy/enhancement of land taxes by local bodies. This working paper examines the institutional arrangements for land use, and uses stochastic frontier analysis to determine efficiency levels of Indian cities and states, with particular emphasis on the case of roads.

Steele, Margaret (2012). Reframing Affordable Housing as Our Housing Commons. Bloomington, Indiana, Indiana University: 18.
This article suggests affordable housing should be recognized as a commons and should be protected by community housing charters and managed by community housing trusts. When land is managed as a commons, it has an intrinsic value to the community and to all those who have access to it. Increases in market value can result from improvements made to the land by the owner but they can also arise from social influences such as increases in demand from population growth or improvements due to public infrastructure or other services provided by the state. Increases in land value due to these “fortuitous factors” rightly belong to the public. However, without land value capture policies, these increases accrue to private land owners and are reflected in increased house prices. Land value capture policies would reduce or eliminate land speculation, making housing more affordable and the revenue collected could be used to provide start-up funding for community housing trusts.


The article explores and assesses local and regional firms’ access to a natural gas extraction and refining complex located at the northern frontier of the Norwegian Continental Shelf. Controversial in environmental terms, the complex has been largely legitimized by the promise of regional economic development in North Norway. The article employs a Global Production Network theoretical approach, and the authors pay particular attention to the complex interaction and power struggle between local, national, and global firms and institutions. Authors note that value capture is greatly influenced by the distribution of rent between states and the petroleum producing companies. They also note that the prospects for regional value capture seem grim, although there apparently has been some local value capture.


Brief discussion of land taxes and housing problems in the UK.


In OECD countries, traditional sources of public finance alone will not suffice to meet future infrastructure needs, which are huge and growing. Bridging the infrastructure investment gap will demand innovative approaches, both to finding additional finance, and to using infrastructures more efficiently and more intelligently through new technologies. Public budgets fed by taxes will not suffice to bridge the infrastructure gap. What is required is greater recourse to private sector finance, together with greater diversification of public sector revenue sources. Diversifying the sources of public sector
finance includes: Making more and better use of user fees, creating mechanisms for securing long-term financing for infrastructures, exploring the possibilities offered by land value capture, and promoting innovative variations on traditional financing mechanisms. More attention has been brought to bear recently on the potential of land value tax, whereby a proportion of the increased value that accrues to landowners benefiting from new or improved infrastructure in the proximity is captured and used to fund the infrastructure provided.


This working paper examines the implications for horizontal and vertical inequalities of tax and expenditure policies, with a small case study of Malaysia. In this context, it analyzes a land value tax, defined as a tax on the potential value of land rather than the actual value of the structure on it. Argues that this tax is progressive, even at a flat rate and then it could be made even more progressive by having higher tax rates at high land value or by exempting all property below a certain value. This may entail high startup costs but have long-lasting benefits including improving the security of property rights.


New Texas DOT guidelines encourage arrangements that support alternative funding options and long-term sustainability of transportation facilities. In a new subsection on funding alternatives, the manual lists seven nontraditional options to consider when initiating a project, such as value-capture mechanisms. These innovative public financing mechanisms include public improvement districts, tax increment reinvestment zones, and other special districts or public-private agreements. The town of Hutto, Texas incorporated a value-capture mechanism in the master plan for The Crossings of Carmel Creek, a future mixed-use development straddling SH 130 at its intersection with U.S. 79. Percentages of the sales and hotel occupancy tax revenues arising from the development will go back to the developer to fund roadways, sidewalks, and pedestrian and bicycle paths.


This report discusses activities that are necessary for equitable community growth around high capacity transit in the central Puget Sound region. The report recommends eight different approaches to implementation. One of the recommended policies is that value capture mechanisms that derive public benefits from new development or increases in property value should also be improved and expanded. Because different value capture tools are appropriate for different markets, a variety of tools are needed, including impact
fees and developer agreements. Use of revenues derived from value capture tools also applies to other community benefits, including affordable housing.


The guidelines in this report are intended to give an overview of existing funding and financing options for public transport. Funding in this Guideline is defined as how the costs of operations are covered in a short or medium term perspective, the fiscal year, one accounting period or (at the most) one Public Service Contract period. The main objective of a financing scheme is to bridge the gaps in funding streams at the lowest possible financing costs. The importance of long-term policy stability and political consensus as far as possible concerning funding and financing of public transit must be emphasized.


Numerous studies have demonstrated that transportation systems raise property values and stimulate economic growth; however, other studies suggest that recently constructed urban rail systems have had only marginal economic impact, implying that mass transit investments may not create significant value-capture potential. To generate more than a marginal economic effect, a transportation system should represent a quantum leap over the accessibility provided by the existing network. As a result, electromagnetic propulsion with a linear motor has, by far, the greatest value-capture potential of any ground transportation technology.


This chapter examines the history of the land tax in Pittsburgh and concludes that the site value tax in Pittsburgh led to low foreclosure rates despite the recession, slowly climbing home prices and increasing construction rates. It also examines why the site value tax was abolished and analyzes the tax in an environmental context.


This paper first describes value capture as an infrastructure financing method. It then provides two case studies for Copenhagen. The third part of the article then identifies success factors and criticalities and offers recommendations of the use of value capture.
Land readjustment is brought forward to involve public participation to solve problems in urban development. This research studies about the feasibility of land readjustments for Kampung upgrading. The design is on the basis of the existing condition in Kampung and conceptualized within the framework of land readjustment characters. Value capture is part of the analysis.


This report summarizes the previously cited books by the same authors. It emphasizes value capture in Tokyo and Hong Kong, and notes that it is a concept that is effective not only for sustainable finance but also for sustainable urbanism. Value capture is particularly well suited for financing transit infrastructure in dense, congested settings, where a high premium is placed on accessibility and the institutional capacity exists to administer the program.


This book explores the complex process of transit and land-use integration in rapidly growing cities in developing countries. Key institutional, regulatory, and financial constraints that hamper integration and opportunities to utilize transit to guide sustainable urban development are examined in selected cities in developing countries. Recommendations for creating more sustainable cities of the future range from macro-level strategies to micro-level initiatives. At the micro level, financial sustainability can use value capture (defined in glossary) as a tool for generating revenue; funds that go to pay for not only the stations, tracks, and vehicles but also for all the upgrades and enhancements that are needed within a half-kilometer of the station to create a high-quality environment. The revenue could also finance social housing and associated facilities for low-income people.


Same book, different title as already noted in bibliography.

(From abstract only) This paper (which cannot be easily downloaded) attempts to study a model for implementing a land value tax in Iran. It finds that implementing a land value tax requires a new law which should address local or national implementation, set methods of land evaluation, select the appropriate tax period, determine the types of land to be taxed, identify the ways deal with the deferred tax, and a variety of other implementation questions. The article gathers questionnaire data and a model for local land value taxes is introduced.


New business models and/or policies are needed to ensure financing for transit projects in Ontario. This report creates a framework that will help to generate these new business models and policies. The framework is premised on 4 key ideas: infrastructure referenda, infrastructure bonds, government driven transit oriented development and a new provincial infrastructure bank. The Provincial infrastructure Bank will have the sole purpose of managing the funds and debt issued for transit development. This bank will collect the dedicated sales tax, use land value capture techniques, and raise funds through bond issuance. The bank would be the central linchpin of the proposed system.

Tapela, Nigel (2012). "Mainstreaming informality and access to land through collaborative design and teaching of aspects of a responsive planning curriculum at the Cape Peninsula University of Technology." Town and Regional Planning 60: 10-18.

Including a brief discussion of value capture as a finance tool, this article argues that the curricula of planning schools should focus on local substantive contexts, and case studies, as well as on developing deeper and more sustained collaborations with local actors in implementing locally responsive curricula. The choice of thematic issues is strategic: informality and access to land are two critical issues of substance while collaborative design and teaching is a process issue, undergirding the value basis for/of planning. The latter, collaborative curriculum design and teaching, refers to a more deliberative engagement with context, substance and actors in an African planning environment in curriculum development, design, implementation as well as sourcing and developing learning materials that speak to local contexts.


This thesis examines why so few transportation mega-projects have been successfully implemented in New York City over the past 50 years. The thesis suggests changes in funding mechanisms (among other ideas) that may help the implementation of these large projects. Value capture is one of these methods. It describes value capture as a means of tax increment financing and discusses its use in New York City projects, projects in
Denver Colorado and Atlanta, Georgia. It also discusses a New Jersey project that was cancelled because, as the author argues, the New Jersey Governor did not consider value capture mechanisms. The author concludes that funding for large transportation projects is a serious, but not insurmountable problem.


This article, focusing on Cambodian land reform after the Khmer Rouge, examines land value taxation as a tool of better land use planning. Interestingly, it notes that private land use rights should not be mixed up with private property rights. It argues that neutral land use planning in Cambodia (defined as no private speculation) can only be achieved by land value taxes that skims off the ground rent. However, the article also notes that basic information of land and property sales, on land valuation systems, and property tax techniques are limited and considered suspect. Forecasts that land value taxation will become an important source of revenue for Cambodia.


This chapter gives a basic overview of land tax reform in Estonia, a former Soviet republic that over 50 years of Soviet occupation had its land entirely expropriated. Beginning in 1991, ownership rights began to be restored. A land tax was imposed in 1993, with only a limited number of exemptions. The chapter concludes by identifying two areas for policy action: reduction of the costs of land tax administration and to use the revenue potential of the land tax more effectively.


The success of large-scale projects and programs such as a rapid transit development project can be influenced by a multitude of factors, such as existing local government policies, regional development trends, and the economic health of local communities. Further, the implementation of such projects can have a wide range of environmental, social, and economic effects. The Multiple Accounts Evaluation (MAE) framework allows these influential factors and effects to be systematically evaluated quantitatively and qualitatively. This study sets out to develop a more comprehensive MAE framework to better assess the environmental, social, and economic effects of rapid transit technologies. The study identifies the appropriate indicators to add to the MAE structure and develops techniques to measure them. It explicitly includes a variety of value capture techniques in this discussion.

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In this paper, the estimation of the costs and benefits generated from the building of the new Cispadana regional motorway (Emilia-Romagna Region, Italy) are described. The study focuses on the price variations of the industrial buildings property values in the real estate market after the new motorway will be built. Thanks to the hedonic pricing method, using a multiple linear regression model, the contribution of accessibility to the industrial buildings' pricing has been isolated. The purpose of such a procedure is the setup of equalization mechanisms, which can rebalance the territorial effects though so-called “land value capture” tools. Furthermore, because of the understanding of the contribution of each territorial feature to the final price of the good, this application could provide a common knowledge base which could be used to support the government’s ability to negotiate with the private partner in the public private partnership procedures.


Transportation finance has been historically dominated by assessing taxes to transportation users and taxes on the general public. Innovative financing mechanisms such as tax increment financing, special assessment districts, and others represent value capture techniques that tax property owners to pay for transportation costs. Value capture techniques provide supplemental funds to support capital construction costs but are not substitutes for existing dedicated and traditional tax revenue methods. The major findings of Texas practice indicate that tax increment financing for transit does not significantly contribute towards the transit infrastructure. Instead tax increment funds the improvement of public infrastructure surrounding transit stations and stops and can be labeled transit-supportive investments.


This chapter forecasts continuing European urban sprawl unless changes are implemented in the planning and financing arenas. There is a special section in the chapter on value capture finance and land taxes in Europe. Concludes that informal policy agreements are unlikely to be reached without strong backing of formal government systems and institutions.

The objective of this report is a systematic overview of public sector regulations, policies and tools with effects on the peri-urban land uses. First financial instruments (e.g. intergovernmental financial transfers, public subsidies, taxation, service pricing) will be analyzed, followed by the overview of some of the sectorial policies (infrastructure development, housing, transport). Included in the financial instruments’ discussion are land taxes and value capture along with a listing of their legal status in EU countries.

Governments of industrializing nations are pursuing investments in rapid transit infrastructure. An immediate concern is how to pay for these capital-intensive projects. Commonly, governments pay for infrastructure construction, while operations may be either public, private, or a combination of the two. Proactive governments such as those found in Japan and Asia’s Newly Industrialized Countries have used value-capture strategies to harness public and private investment in mass rapid transit infrastructure. The property development boom surrounding rapid transit stations has been widely reported. Newspapers and private companies undertaking land valuations have reported that housing close to a rapid transit station realizes a premium of approximately 9%, while rents in the vicinity of Bangkok Transit System stations were reported shortly after opening to be 25% higher than previously.

This report compiles a comprehensive list of funding sources that are in use or have the prospect of being used at the local and regional level to support public transportation. The results of the project are intended to serve as an updateable, interactive resource on local and regional funding sources for public transportation as well as a guide to the evaluation and enactment of new or expanded funding from local or regional sources. Value capture is included in the section on revenue streams from projects.

This book recommends actions to be taken by public policy makers in four general areas: (1) examine the details of evolving and existing transportation finance polices to assess their equity, (2) Ask a broad range of questions about equity impacts, (3) Engage the public in decision making and (4) Develop a better understanding of travel behavior and
its consequences. It addresses value capture strategies as a potential finance source, with specific noting of impact fees, special assessments, and tax increment financing.


This paper is the start of a project examining how fiscal devolution for Scotland, Wales and Northern Ireland can be accomplished. It examines financial devolution from two dimensions: what is desirable from the point of view of the UK as a whole and what is practical. Part of the report examines in detail land taxes and concludes that all land taxes should be devolved to local government.


Using Forrester's urban dynamics model, this paper simulates the implementation of a land value tax along with the elimination of all other taxes. It finds that the results are nearly identical to the case in which all the taxes existed. It also finds that if the land value tax is introduced from the beginning—with no other taxes present—the city gets the best results. The timing of implementation and the level of the land tax are two crucial factors.


Across the world, local authorities have increased their range of options to finance transport projects. These options should reflect the context of the transport project. This principle can be observed when employing the financing strategy of value capture, defined as the “family of public finance mechanisms that raise funds in proportion to the increase in land value associated with new or improved public infrastructure.” It is called “value capture” because the goal is to secure part of the value a given project adds to an area in order to finance the transportation project itself. Value capture is possible only when there is strong land-use management to guide decisions by the developers and transportation planners toward the most financially favorable combination of uses. Additionally, increasing taxes based on the value of land instead of the building type could encourage sustainable transportation practices and more compact development. The land-use tax structure is best used to fund a system-wide improvement, not a single transit development.

After noting that China has had some sort of land tax for over 4,000 years, the author gives a brief review of the tax structure in Taiwan, discusses the importance of both land value taxes and land value increment taxes for local government finance in Taiwan. The author then engages in a more detailed discussion of their performance in value capture potential of both types of taxes. There is also a discussion of the land use regulatory system and some policy suggestions.


Incorporation of real estate development potential in the transit planning process was often spurred by the need to finance a significant portion of the transit capital costs from real estate development–related revenues (e.g., tax increment financing, assessment districts, and joint development). This process, commonly referred to as value capture, can become a critical tool in aligning transit planning with real estate development. Additionally, we need stronger evidence of the link between transit and livability. Additional research on transit livability performance measures would be beneficial. It is important to keep the audiences for performance measures in mind and to provide consistency in performance measure definitions but not impose standards or targets. While research has been conducted on value capture, much of it is too academic for the public to understand or transit staff to use.


Orthodox economic analysis cannot identify how to provide affordable housing on a sustainable basis for a variety of reasons. Duplex property rights are described that separate the value of buildings from the values created in their land by neighboring infrastructure investment. This allows the increase in land values created by the infrastructure expenditure to be used to make all neighborhood sites self-financing, to halve the cost of urban housing and to eliminate the cost of land for commercial developments. The resulting increase in economic efficiency improves equity by providing ways to distribute wealth to citizens without government taxes or welfare. The paper recommends that approval for public infrastructure expenditure and/or development be made conditional upon adopting duplex ownership of urban realty.


This paper develops a computable urban economics model that is used for examining urban policies. The paper presents a general and standard form of the model and describes its maximizing principles. Equilibrium is described as a set of solutions to a system of equations. The paper notes that changes in land value because of public infrastructure projects can be fitted into the model for practical requires in policy making.
It also notes some complications that the model implies for value capture and which the policy maker must confront.


This article investigates the effects of taxes on landowner behavior, when the landowner has a utility function that incorporates both consumption and the amenity values of a standing forest. This general equilibrium theoretical model leads to the conclusions that as long as the wealth level of nonindustrial landowners continues to increase, sales or profit taxation will lead to longer rotation lengths, and voluntary forest conservation will increase. Further, it shows that in order to prevent future timber supply levels from decreasing, a lump-sum land value tax in combination with profit or sales taxes will partially restore the lengthening effects of these latter two taxes.


The State of Texas has passed several bills allowing innovative financing and alternative options for project financing. Among these is the Senate Bill 1266 (SB1266), passed in the 80th Legislative Session, which provides the legal backdrop for the creation of an institutional arrangement called the Transportation Reinvestment Zone (TRZ). A TRZ facilitates value capture of the potential benefit or tax increment from a future transportation project. This research aims to help the implementation of SB1266 provisions across Texas. It defines value capture (VC) as an innovative financing method that relies on leveraging the real estate potential brought by urban asset improvements. VC refers to the process by which all or a portion of increments in land value attributed to community efforts rather than landowner actions are recovered by the public sector. Commonly known examples of such value capture are the TIF and the TRZ models seen across the country. Also included in this category are special assessment districts, public improvement districts, impact fees, and other examples.


This handbook is based on the previous report by Vadaloii. It explains the Texas Senate Bill 1266 (SB1266), that was passed in 2007 as part of the 80th Legislature to provide the legal backdrop for the creation of an institutional arrangement called the Transportation Reinvestment Zone (TRZ) to facilitate value capture of the potential benefit or tax increment from a future transportation project. There are only three implementation projects to date using this funding mechanism, therefore the exposure to this concept is still minimal. As a new value capture strategy, TRZs do have similarities with other value capture methods adopted in Texas, but still remain different in subtle ways.

Value capture is a form of a public-private partnership. It is widely used across the country and around the world for transit applications; however, its applications to roadways have only recently emerged into discussions of roadway finance, out of motivation stemming from the transportation funding crisis. Two states have legislative provisions for enabling value capture for financing transportation. In Texas, this takes the form of a transportation reinvestment zone (TRZ). This paper presents specifications for a TRZ based on a case study approach and then applies a financial evaluation model based on those specifications to a case study corridor in El Paso, Texas, to assess preliminary revenue sources and cash flows that can be accrued for value capture bonding capacity.


This article analyzes three methods for financing infrastructure: takeover compensation (applied to infrastructure built after project financing), value capture (assess part of the transport systems benefits by capturing he increase in property value experienced after the opening of the new infrastructure), and “Euro vignette” Directive (road user charges). Article analyzes four Italian projects through the application of these methods. Written in Italian with an English summary.


The paper analyzes urban trends, service delivery, institutional arrangements, municipal finances, and innovative financing for India. India’s future strategy should focus on a variety of activities, including a further focus on regulation, innovative financing and PPP, and different approach of supporting reform-linked investments needed for different states based on level of urbanization. Specific analysis of value capture techniques is undertaken with a recognition that infrastructure increases the land value and therefore there is a need to capture it. Increase in land value in turn will lead to an Increment Tax. Two examples mentioned, but not described, are the Town Planning Schemes in Gujarat and Maharashtra.


Planners are increasingly adopting market-oriented compensation instruments. This obligation for compensation also aims to recoup value from those who seem to profit more from the new regulation than would be just from the perspective of the community. Compensation schemes therefore often entail a duty falling on those parties that profit
from the new regulations to pay some of their windfall profits to the government or to compensate those who have suffered from the same regulations. Another dimension relates to recapturing the added value of land. Value capturing can be seen as a means by which compensation is gained from landowners for the added value of land resulting from new planning regulations. This recouping of value is given legitimacy by the idea that a certain destination of property in a land use plan does not result in a personal property right but in a communal property right and that therefore the profits that result from favorable zoning regulations should also be owned by the community.


Paper covers different ways improvements to the urban environment can be funded. Paper examines: 1) Business Improvement Districts, 2) Tax Incremental Financing, 3) Land Banks, 4) Community Development Corporations, 5) Tradable Development Rights and Floor Area Ratio Bonuses, 6) Public-Private Partnerships/Private Finance Initiatives, 7) Value Capture Finance, 8) Special Government Entities, 9) Usage Pricing and 10) Micro-Finance, -Insurance, - Incentives. The three interlinking concepts of externalities, incentives and collective action help to frame how the city and the landscape are influenced by economic factors. The notion of externalities in particular plays a crucial role in this paper.


The Brazilian Betterment Levy is a tax that allows government to recover the increase in land values that comes from a public intervention. The origin of this tax goes back to the Portuguese “Philippines Ordinances” which allowed finta to raise money to build sidewalks and bridges. They started in Portugal in 1603, and in Brazil the Betterment Levy was formally instituted in 1934. This article explains this history. This article is in Portuguese


The objective of this study is to examine the varying relationship between the property value and its determining factors such as accessibility to urban rail. A hedonic price model of medium-income-class housing in Bangkok taking into account the varying relationship (Geographically Weighted Regression, GWR) is estimated. The GWR model has revealed that the influence of urban rail transit has on the residential property (townhouse) value substantially varies over space. This implies that an urban railway has large contribution to land and property value uplift in the station catchment areas. It is
showed that transport accessibility may have a positive effect on land value in some areas but in others a negative or no effect, suggesting that a uniform land value capture would be inappropriate.


Argues that low land taxes lead to speculation and private land banking (assuming the landowner can hold out). A higher tax on land values that is coupled with a lower tax on structures creates an incentive to sell the land or do something with it. Examining Clairton, Pennsylvania, adoption of a land value tax demonstrated neighborhood revitalization. Contrasting this to vacant properties contribution to the city budget tripled. Also finds that land value tax systems have to be marketed competently and that the rates have to be high on land and low on structures.


In Colombia, Land Readjustment (LR) is a land management tool envisaged since 1989 and linked directly to the development or renewal of urban projects for the city. Land Readjustment must be used when a new lot configuration is necessary. The law’s guiding principles intend to ensure the right for all citizens, to seek a more equitable land-value capture distribution, looking to implement the principle of the social function of property. The law explicitly allows a land-value capture tax. The information in this document illustrates Land Readjustment as a tool/mechanism that regulates the voluntary relationship between public and private actors around three main axes: First, overcome - voluntarily – the typical “lot-to-lot” development and the appropriation of land-value increase by land owners that has resulted in urban inequality; second, how urbanization infrastructure gets paid for and by whom and last the spatial and social inclusion of the urban poor in urban development.


This chapter assesses the role of land value capture in enabling inclusionary housing and community land trusts in their attempts to increase the stock of affordable housing. The chapter utilizes a federalism perspective in the analysis. It then examines the economics of preserving affordable housing and the role of land value capture in facilitating this provision. Finally, the authors study affordable housing policies in New Jersey and Massachusetts as well as community land trusts in the United States and the United Kingdom.

Through a combination of literature review and preliminary empirical work (primarily based in the United States), this chapter examines some of the practical aspects of land value capture. It concludes that certain conditions must be met for land value capture to take place: population growth, public infrastructure investment, and/or improved services must result in increased private land values; the increased values must be identified by the property tax valuation process; entities levying a property tax must maintain an effective tax rate sufficient to result in a higher tax bill on the affected land; and, the additional revenue must be adequate to pay for the required share of infrastructure investment. It notes that the last three conditions are not routinely met, even in developed countries.


Land Value Capture (LVC) has long been advocated by international organizations as a funding source to support local improvements in urban infrastructure and services. This paper examines efforts to implement LVC. The distinction is drawn between cost recovery and LVC more broadly. Tools for cost recovery are assessed and successful strategies described. Available tools for LVC are evaluated and generally found wanting. An alternative approach using a restructured annual land tax is proposed.


This Ph.D. thesis has three essays. The first uses a static three factor general equilibrium model to measure the incidence of a land tax. It finds that land bears the entire tax burden only when the land value tax is uniform across land uses; part of the differential land tax is shifted forward to housing consumers. The second essay uses an optimal tax model that ultimately suggests that it is optimal for local governments to tax different land uses at the same rate only in the rare cases when land areas are equal and production technologies are identical across sectors. The third essay finds that when housing prices are exogenous, the optimal tax rate is higher in the sector that has more inelastic demand for land, while when housing prices are endogenous, it is optimal for local governments to tax housing land at a higher rate than non-housing land.

The author is interested in looking for a more balanced value distribution in redevelopment through value capture and non-financial compensation (NFC). By reviewing literature, interviewing key representatives of interested parties and attending meetings, the research found that different interested parties have diverse views on the value changes, value capture mechanisms, and the possibility of using NFC. The research questions of this study are: how do different interested parties in the case of an urban village perceive the value changes that happen in redevelopment and the mechanism of value capture and non-financial compensation? The goal here is to show a more balanced value distribution does follow the same logic as that the wealth of a city is collectively created and should not be exclusively owned by some certain group of people.


This master’s thesis analyzes land use patterns surrounding two subway lines in Toronto. As part of the analysis, the author examines interview results of municipal finance officers and planners as well as developers. She finds differences in conclusions concerning the impacts and desirability of a land tax reached by these three groups, with the differences not always reflecting theoretical conclusions.


Paper explores the idea that urban planning excludes the poor. Paper reviews newer approaches in planning to offer ideas for pro-poor and sustainable planning. In this context, there is a new interest in capturing rising urban land values through property and capital gains taxes by governments for redistributive purposes. Value capture is an effective way of doing this and is also useful to control land use, finance urban infrastructure, and generate additional revenue at the local level. This increase in urban land values needs to be “socially harvested.” Principle of VC has good potential to allow city governments to benefit from private sector driven urban projects. It may be that funds from value capture can be equitably and transparently raised and redistributed by local governments. However, some kind of oversight would need to be in place to ensure that this occurs.


The main objective of this research is to study the potential application of innovative value capture mechanisms for financing the upgrading of infrastructure in Kilimani, a neighborhood located in Nairobi. Four case studies on innovative financing strategies based on value capture are studied. This study further assesses the local context of Kilimani, the changes in land values since the rezoning policy was passed, the
perceptions of developers, property owners, and municipal policy makers on their involvement in the infrastructure development and financing process and the institutional framework of the municipality. Data include interviews with the relevant actors, key members of a policy review exercise and property and valuation agents. Secondary sources include newspaper articles, the Internet, journals, policy minutes and reports. Based on the data collected and the respective analyses, developer-centered approaches stand out as the most appropriate tools for application.


This study estimates the extent to which TIF affected the property tax revenues of school districts in Illinois between 1990 and 2000 and tax rates in 2001. Although, in the aggregate, TIF tends to raise tax rates, the local economic development tool slowed property tax revenue growth in downstage urban areas but increased growth in rural districts. TIF had little effect in the Chicago metropolitan region, possibly due to development in non-TIF portions of the school districts, intergovernmental agreements for sharing TIF revenues, and the compensatory effects of the state school equalization formula. The findings point to the need to analyze interjurisdictional relations in different geographic contexts. TIF also has vertical effects: it potentially "captures" revenues that might have otherwise gone to overlapping taxing jurisdictions within the same municipality. Value capture is possible because property taxes collected on the incremental value must be channeled back into the TIF district for development or repayment of debt to fund TIF projects.


Scholars often explain the rise of tax increment financing (TIF) as a natural progression toward localized revenue sources born of devolution, increased interlocal competition for business investment, and fiscal constraint. Although such factors provide important context, the authors' genealogy of TIF in the state of Illinois reveals that critical actors—private real estate consultants—actively promoted the adoption and subsequent promotion of TIF as an economic development tool. Through interviews and a review of primary documents, the authors uncover a network of private consultants who had prior experience shepherding federal urban renewal dollars to cities and who later mobilized concerns around the 1970's deindustrialization crisis to steer the use of property tax incentives from job creation/retention to real estate development. TIFs are a textbook example of what public finance economists call “value capture”.

This article attempts to put a price, through various mechanisms, on urban design. A land tax is one of these mechanisms. Discusses Britain’s attempt at a 100 percent betterment tax and how it failed, and concludes that the fundamental problem of taxing the full unearned increment takes away an incentive for an individual to invest in private land and therefore reduces the supply of private investment. Compares this to China in which the state does all of the investment. All done in the context of accessibility pricing.


This presentation by the Chair of the Labour Land Campaign advocates moving to a land tax to finance public transportation. It argues that moving to a land tax to finance transport improvement generates a virtuous economic cycle that is win-win for all—including the landowners who are being taxed. Notes that a location benefit levy (a land value tax) would apply to all sites which would be valued annually for their rental income based on optimum use and ignoring all improvements. Thus, an empty site with planning permission would pay the same tax as an identical site next door which has a similar size office. There would be no increase in tax liability for improving a building. Argues that it would reduce sprawl, expand business, and workers would increase quality time with their families. Also argues against a development land tax. Nice emotional talk.


This particular edition of this newsletter has several pieces on land taxes. Tideman on the land tax as a tool for economic development identifies six ways that land value taxation promotes economic development; Wilcox argues that land rent is the natural source of public revenue; Law argues that a land value tax is actually a payment for benefits received; Cato writes about a land value tax as a green tax; and Vincent examines the use of land value taxation in Harrisburg and Pittsburgh.


This textbook includes a formal discussion of the Henry George Theorem--local public expenditures should be equal to local land rents, with land rents entirely taxed away at an optimum. Notes that there exists a modified Henry George Theorem that resource rents plus non-wage income is equal to public expenditures net of head taxes.


Research has shown that heavy investment in strengthening the transport network is seldom sufficient on its own to generate wider economic growth, but that, well planned, it can strongly affect the physical location of such growth and enhance its overall efficiency and scale. It is therefore reasonable to seek some contribution from property owners and
land resources to the capital costs of transport system development. North America and some European countries have given increased emphasis to up-front impact fees intended to recover from developers the costs of offsite infrastructure reinforcements necessitated by their real estate development projects. Increasing use is being made in some developing countries of charges for increases in permitted Floor Area Ratios or Floor Space Index, reflecting the increased densities required for considerations of efficiency and sustainability. Several areas need attention in most countries. One is that pricing based on increases in Floor Space Index merits particular pursuit as the most promising way of capturing value from urban infrastructure improvements.


In Swedish. Public investment in transport infrastructure often generates increased land values. The possibilities for value capture is determined by factors such as land ownership patterns, the organization of planning and implementation of transport infrastructure and land development, as well as the design of legislation, taxes and charging instruments. This essay explores the possibilities for property related value capture in Sweden. A case study on the financing of a commuter rail station and traffic junction in Vegastaden, Haninge, exemplifies how value capture can be applied under current institutional arrangements. Case studies on value capture methods in London and Hong Kong show how value feedback can be applied under different institutional arrangements. The institutional conditions in Sweden are compared with those in London and Hong Kong based on theories of land value, club theory, transaction costs and negotiations.


This chapter describes community benefits agreements (also known as movement for accountable development) as a method of inserting local stakeholders, typically low-wealth households in the vicinity of the development, into the process of recovering some portion of the land value created through the public investment that was part of the agreement. These often tend to be controversial because of economic, political, and ethical dimensions. The chapter also includes a case study of a community benefit agreement in Denver.


This Symposium aims at pushing forward the research agenda on climate change from a city’s perspective. Simultaneously, with a high concentration of economic activity and population they are also vulnerable to the impacts of climate change. One of the main
entry points for engaging cities on climate change is through disaster risk management, specifically through policies and incentives that are in the pecuniary interest of cities. For example, with better land zoning and building codes as means of reducing climate change/disaster-related risks, city officials can increase “value-capture” through increased property taxes.


Included in this discussion of community trusts is a history of the land value tax (and Henry George) in England.


Discusses TIF mechanisms, how they work, potential problems, and gives case studies of California, Illinois, and Florida.


Density bonus programs can be defended on three rationales: the windfall rationale, the value-creation rationale, and the externality rationale. According to windfall recapture theory, when a change to land use regulation increases the value of property, the property owner receives a windfall because she has done nothing to bring about the increase in value. Applied to density bonus programs, a municipality can recapture this value by requiring an amenity in return for the density bonus. However, application of the windfall rationale to density bonus programs encounters two problems. First, how much of the increase in value is a benefit granted by the municipality, and properly subject to recapture, and how much is due to investment by the property owner and therefore should remain with the property owner? Second, other legal structures may recapture some of the windfall gains that density bonus programs aim to recapture.


This research attempts to find out how inclusionary housing is implemented in Indonesia through the balanced residential ratio 1:3:6 regulation. There are two main objectives of the regulation: (1) to produce affordable housing, and (2) to encourage more socially integrated development via mixed-income residential areas and cross-subsidies. Henceforth, every new residential development by a private developer should reflect the 1:3:6 ratio (1 high-income, 3 middle-income and 6 low income units). Using the case of Makassar City, the capital city of South Sulawesi Province and the largest city in the
eastern part of Indonesia, the author assesses the implementation of the balanced residential ratio from four dimensions - legal, economic, financial, and social - during period 1993 – 2003. Those dimensions are discussed through the application of land value capture.


Part of this paper relates value capture to land leasing. Legal scholars view property in land as a bundle of rights. According to this view, the government can retain the right to own land and assign to a private party the right to use, develop, transfer, inherit, and benefit from land. The private party would be entitled to enjoy the rights so granted only for a specified period of time and as stipulated in the land lease contract. In Ethiopia, land is owned by the state. Long-term leases are, however, available for urban land for periods of 50 to 99 years. The lease is transferable, subject to capital gains tax and can legally be used as collateral, at least for the lease value. Land lease offices of the regional governments or city administrations issue the land lease.


This paper focuses on the economic link between transportation and land use as exhibited in property values, with the express purpose of viewing how this link should and can be exploited as a transportation finance tool. In particular, we examine the land value created by urban rail transit access. The benefits of transit investments to the local economy should be reflected in business profits, individual income, and property values. We focus on this last source – the one most tangible for local government revenue generation. We examine these effects and possibilities in the City of Chicago, exploring the relationship between urban rail services, accessibility, and residential and commercial property values.


Since there will be a reduction of federal grants to large and medium-sized airports, and since there will be no increase in the passenger facilities charges to offset these reductions, airports will need to utilize additional funding sources for capital improvements. This chapter examines alternative methods that might be used for these improvements. These include internalizing the positive externalities that airports generate, looking at the airport as a public good and so forcing people other than passengers to for infrastructure, and whether any land value captured mechanisms exist through which these internalizations can be realized.
Zhao, Zhirong (Jerry), et al. (2010). Funding Surface Transportation in Minnesota: Past, Present, and Prospects. Minneapolis, MN, Center for Transportation Studies, University of Minnesota: 65.

The funding and financing of transportation is a complex process requiring joint efforts of federal, state, and local governments. In recent years, depleting state and local budgets and growing capital and maintenance costs related to transportation have been a common challenge. This report reviews the funding of public surface transportation systems (including highways, transit and local roads) in Minnesota. We look at how transportation projects have been funded, identify current and future policy issues likely to affect transportation funding, and go over some of the funding options suggested by other researchers. Included is an extensive discussion of value capture and its implementation as well as a brief discussion of land taxes.


Value capture strategies apply a benefit principle to public infrastructure investment by creating a mechanism to capture the value created by infrastructure improvements. This paper focuses on one value capture strategy, tax increment financing (TIF), which uses future increases in property taxes generated by infrastructure improvements to finance the initial costs of the development. This paper reviews the history of TIF, its extent of use, and its mechanisms. Then it evaluates the applicability of TIF as a revenue strategy based on four criteria: efficiency, equity, revenue sustainability, and feasibility. It provides recommendations on how to improve and expand the use of TIF.


Value capture seeks to generate revenue by extracting a portion of the gains in the value of land that result from improvements to transportation networks. In this paper we identify value capture strategies, including land value taxes, tax increment financing, special assessments, transportation utility fees, development impact fees, negotiated exactions, joint development, and air rights. We evaluate each of the policies according to four criteria: efficiency, equity, sustainability, and feasibility. The value capture concept is placed within a more general framework of transportation finance that emphasizes the relationship between different types of charges and groups of beneficiaries from transportation investments.


Applying a benefit principle, value capture strategies enable the public sector to harness the value created through infrastructure improvements and to use the funds to pay for such improvements. This article focuses on special assessments by which property
owners located within a designated geographic area, or “special assessment district (SAD),” pay for special benefits accruing to their properties that are close to certain infrastructure improvement. The authors evaluate the applicability of special assessments in funding public transit on the basis of four criteria: efficiency, equity, sustainability, and feasibility. Finally, the authors discuss suitable conditions for special assessments and provide legal, administrative, and technical recommendations for their use in transportation finance.


To understand value capture better, the authors propose a general framework of transport finance. Following the benefit principle that the cost of transportation for a contributor should be proportional to the benefits received, different instruments may be designed to match different categories of benefits and the different ways in which these benefits are measured. The beneficiaries can fall under three broad categories: the unrestricted general public; restricted non-user beneficiaries; and direct users of facilities.


The purpose of this project is to study the public interest associated with PPPs, with the goal to maximize efficiency gains, mitigate potential risks, and address public concerns in launching and deploying PPPs in state highway development. In value-capture PPP options, the private sector may participate in project delivery by contributing resources, either financially or in other ways, in exchange for enhanced development opportunities or increased property value as a result of transportation improvement. We include three examples of value-capture PPP. Note that value-capture options are flexible upon negotiated agreement, and they may be combined with other types of PPP in a project. Options analyzed include: Joint Development Agreements, Negotiated Exactions, and Air Rights Development


This article examines joint development as a value capture strategy for funding public transportation. We start from the concept of joint development, its rationale, a brief history, and the extent of its use. Joint development projects in Hong Kong, Taiwan, Tokyo, and Thailand are profiled, as well as domestic examples in Washington, DC, New York, NY, and Portland, OR, etc. Then we provide a framework to classify joint development models by ownerships (public or private) and by types of transaction (real property or development rights). Next, joint development is evaluated along four revenue criteria including efficiency, equity, sustainability and feasibility. Finally, we summarize
the advantages and disadvantages of joint development as a transportation finance strategy, and provide recommendations for policy consideration or implementation.


This Master’s thesis finds that government involvement in transport infrastructure is necessary since there are significant amounts of risks and costs which may cause private sector companies to stay way. This involvement includes land value capture (LVC), Public-Private Partnerships, and subsidies and grants. Land value increases with the installation of transit infrastructure and makes LVC an attractive form of public financing. LVC can occur in various forms, from simple capital gains tax to more complex models. An example of a non-capital gains tax model is where the government or private companies purchase large parcels of land, develop with attractive infrastructure such as transit services and then sell the parcels for a higher price. The value is captured and returned to the infrastructure cost. Notes that LVC can be overlooked as a financing tool.