

# OVERVIEW OF FINANCIAL AND NON-FINANCIAL INCENTIVES FOR BROWNFIELD REDEVELOPMENT

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## Abstract

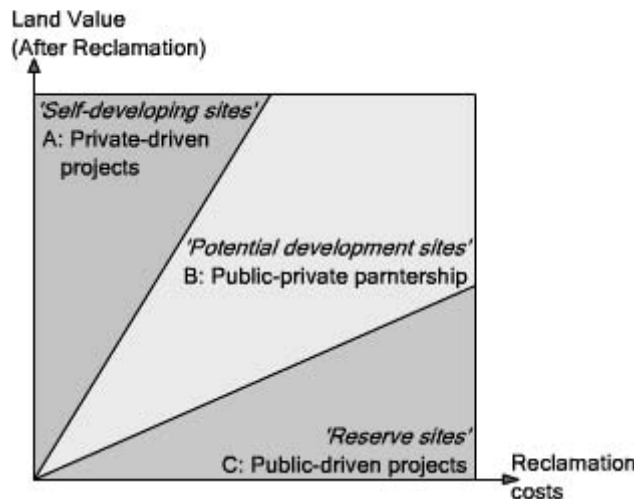
The paper addresses the intervention alternatives available for brownfield redevelopment and provides some evidence on their efficiency and impacts for different types of brownfield sites. The paper considers a number of alternatives ranging from regulatory relief, direct financial support and constraints on new redevelopments, and it attempts to identify those incentives that are the most effective means of attracting private investments to such sites. In this respect, the paper has an integrative perspective of the available alternatives for brownfield redevelopment because it analyzes financial as well as non-financial incentives. Moreover, the paper attempts to break the traditional strategies of economic interventions in brownfield redevelopment by analyzing the concepts of space pioneers, alternative investors and temporary uses, as alternative means for the redevelopment of sites that have little or no market value even after remediation.



*Transylvanian Review  
of Administrative Sciences,  
23E/2008 pp. 5-17*

## Introduction

The paper concentrates primarily on the analysis of the “potential development sites” or the *B sites* (ICMA 2001, CABERNET 2007). These sites have some economic redevelopment potential, but the rate of return on these sites is uncertain due to contamination risks. Financial and other forms of assistance are required to reduce the redevelopment risks and to ensure the feasibility of these projects. Figure 1 shows the category of B sites that have high reclamation costs, but they also have a potential high land value after reclamation. According to CABERNET classification (2007), the *A sites* are economic viable site, that have good redevelopment potential, even though they require some remediation efforts. They have market value and the intervention of the private sector to stimulate their intervention is limited. The super-polluted sites represent the third category of brownfield sites or the *C sites*. They have little or no market value even after remediation. These sites can be redeveloped only with the financial support of public sector. As it was mentioned before, the analysis of the present paper concentrates primarily on the potential development sites.



**Figure 1.** Types of brownfield sites. Source: CABERNET (2007)

The distinction between brownfield regeneration and brownfield redevelopment brings into discussion important aspects. According to Kurunmaki (2005), the regeneration strategies aim to create new markets by increasing the confidence in an area and attracting investment. The term redevelopment has a larger sense and it refers to those efforts to bring the land and the buildings into whatever use the market determines as the most appropriate for the site at that time. The current paper will refer to the term redevelopment, emphasizing that, in some cases, the meaning of brownfield redevelopment is larger than the classical literature in this field.

## **Alternatives to stimulate private sector investment in brownfields**

This section of the paper concentrates on analyzing financial and non-financial alternatives that public sector can use to stimulate private sector to invest in brownfield revitalization. The analysis is concentrated primarily on the U.S., since public sector here is more oriented toward establishing partnerships with private sector to revitalize distressed urban areas, rather than directly financing or providing services for site clean-up and development. State specific examples of successful programs were also used, such as the program that State of Michigan has implemented to create Brownfield Redevelopment Authorities in each county and in other smaller distressed areas.

The primary approach that was adopted in the U.S. was to promote brownfield redevelopment by providing adequate incentives to reduce risks that developers and lenders have when investing in brownfield sites. There are several reasons for encouraging private sector actors to play the key role in this process. The private developers tend to use more innovative techniques to cleanup the contaminated sites, which would help them, keep the development costs down. In the context of limited financial resources, public sector is moving from direct operator and provider to organizer, regulator and controller (Hamlin and Cobarzan, 2006). Private developers know better which projects are most successful for a certain location in order to bring the highest rate of return.

However, several alternative initiatives are analyzed starting from the example of space pioneers, term used by Leibniz Institute for Regional Development and Structural Planning (Oswalt, 2007), and the temporary uses that try to bring new approaches to the reinterpretation of old cities. These innovative examples are used primarily by European cities.

The present section of the paper was divided in two main parts: incentives to reduce developers' risk of investment and incentives to reduce lenders' risk. The incentives that were analyzed to reduce developers' risks aim to reduce cost of financing, to improve business cash flow, to enhance investment climate and to provide other supportive services. Many of the incentives that provide developers more protection are important also for lenders that in these cases can become more willing to invest in brownfield projects. The incentives for lenders analyzed in this paper are voluntary cleanup programs and environmental insurance. The third part of this section analyzes innovative approaches for brownfield redevelopment.

### **I. Financial and Non-Financial Incentives to Reduce Developers' Risk of Investment**

When deciding to invest in brownfield projects, developers are concerned not only with finding the adequate financial resources to build the project, but also with maintaining an adequate cash flow to repay the debt. Loans for brownfield projects are generally more expensive than other real estate loans, because they involve a higher level of risk associated with uncertainty. Therefore, developers are interested in reducing the costs of financing and easing the repayment with flexible payment terms, at least in the first years of the project. The following part of the section will briefly present some financial incentives that public sector uses to reduce some of the risks developers face.

## 1. Reducing Cost of Financing

### 1.1. Bond Financing

There are several forms of bonds that public sector can issue to provide developers with capital to redevelop brownfield sites. These are Industrial Development Revenue Bonds (IDRB), Structured Brownfield Bonds and Credit Enhancement and Taxable Bonds.

1. **Industrial Development Bonds** are private purpose bonds issued usually by a public agency to provide private developers funds for land acquisition, site preparation and infrastructure improvements, which are key elements in a brownfield redevelopment project. The main advantage of these bonds is that they help raise funds at an interest subsidized rate, since the interest that they bear is not subject to federal and state taxation.
2. **Structured Brownfield Bonds with Credit Enhancement.** This type of bonds divide the risk involved with borrowing for a brownfield redevelopment project into multiple classes, or types of bonds, each bearing a different level of interest. Credit enhancement can be used as an additional guarantee against borrower's default. It means that the local government essentially promises to raise taxes if necessary to meet the debt service requirements. This is the strongest guarantee that government can provide for a brownfield bond, and it helps reducing the risk of investing in such projects and therefore encouraging private investors to buy this type of bonds.
3. **Taxable Bonds** can be issued by a public agency to raise funds that can be distributed as loans to small and medium size companies that otherwise do not have access to capital market. In this case, loans are longer term and have a fix rate. They increase company cash flow, and therefore increasing the economic viability of the company.

### 1.2. Interest Subsidies

In order to make the loans more affordable, public sector can subsidize the interest rate for loans used for brownfield redevelopment projects. Interest subsidies can be paid directly to lenders that reduce the rates charged to borrowers. Usually, the interest rates are brought several points below the market rate. The public sector, in exchange, usually stipulates eligible uses or outcomes (such as type or location of investment or number of job created).

### 1.3. Financial Intermediary Institutions

These financial institutions are willing to take more risks than regular banks to make credits available to businesses that otherwise would have been considered to risky for conventional loans.

- a) **Business Development Corporations (BDC).** They are publicly chartered banks. They generate most of their capital from private sources, such as banks, insurance companies, and other institutions that purchase shares of stock. They provide advantageous loans for small companies that are considered to risky to have access to loans from conventional lenders. BDCs typically handle mostly higher-risk

loans, and therefore, they are important for brownfield redevelopment projects by making available funds for such projects.

- b) Brownfield Redevelopment Authorities (BRAs).** They are public authorities, established by municipalities to facilitate local brownfield development. They are intermediary institutions that raise funds to redevelop derelict sites by borrowing money, applying for grants and loans and accepting grants and donations. They also pay or reimburse developers for activities such as cleanup and infrastructure improvements. They also lease, purchase or convey properties for future redevelopment.
- c) Revolving Loan Funds.** The local government or other managing institution can use a revolving loan fund to lend money for those projects that the banks would not be willing to make loans. Brownfield cleanup and development are good example of such projects that bear a higher risk of failure. Usually, the loans are made at low interest rates and, as the interest and repayment is paid back, the institution can make more loans. These funds can be particularly useful for small businesses, that would not have the resources to finance the cleanup effort.

#### ***1.4. Loan Guarantees***

Loan guarantees are usually given by a public institution that agrees that in the event of a default it would cover most or all of a loan made by a private lending institution. A loan guarantee program lowers the risk that the market value of the collateral would diminish, thereby reducing some of the risks that the lending institutions assume when making loans to brownfield projects. This program makes a commercial lender more likely to provide capital to small and start-up businesses that are investing in brownfield redevelopment projects. A loan guarantee program is an attractive program for a public institution because it is less expensive than providing direct loans, since most loan guarantees are not exercised. Most existing state loan programs finance long-term fixed assets, such as machinery or buildings.

## **2. Improving Business Cash Flow**

### ***2.1. Tax Abatements***

Tax abatements are used to stimulate investments in building improvements or new constructions. Only certain areas are designated to participate, such as distressed communities and deteriorating neighborhoods. Tax abatements can take several forms. The assessed value of the land and buildings can be frozen at the pre-improvement date. The tax rate can be reduced for a certain period of time or certain types of properties can be exempted from taxes altogether (ICMA 2001). These tax abatements are granted for a specified period of time and they may have a declining scale: full abatements are granted initially when cash needs are the greatest and then the level of abatements can be reduced gradually.

### ***2.2. Remediation Tax Credits***

Remediation tax credits are another form of tax incentives directed primarily toward distressed areas. The tax credit is based on the amount spent for redevelopment

activities, such as demolition, construction, renovation or improvement, as well as addition of equipments. The credit is proportional with a certain amount of the eligible costs and it can be carried into several tax years. In some states, the tax credit is deducted from the business tax.

### **2.3. Tax Advantaged Zones**

Tax advantaged zones are designated geographical areas that offer special incentives. Three types of advantaged zones will be presented here: foreign trade zones, empowerment zones and renaissance zones.

- a. **Foreign trade zones** exempt from income taxes and custom duties businesses in the zone that are producing for export.
- b. Businesses located in **empowerment zones** can take advantage of advantageous tax treatment, worker training initiatives and exempt bond financing initiatives.
- c. **Renaissance zones** are zones designated as virtually tax free in order to attract businesses and residents.

### **2.4. Grants**

Grants provide direct financial resources usually for investment activities, such as site preparation or infrastructure improvements. They carry no repayment obligation. Usually, they are paid to a public institution that can invest the funds to facilitate brownfield redevelopment projects.

### **2.5. Economic Development Loans**

Economic development loans are particularly attractive for new and small businesses that are engaged in projects that are perceived to be risky, such as brownfield projects. These loans are made at advantageous terms and below market rates of interest, and they are provided more for long-term fixed assets. They seldom provide the flexible, short-term working capital needed for inventories and day-to-day operating expenses.

### **2.6. Secondary Loans**

Secondary loans are loans made by public agencies to companies that have received a primary loan from a private sector source. These loans can be backed-up by a public institution to lower the amount of capital that a business must invest in a project. It also improves the creditworthiness of the business by giving the private lender first claim on assets in the event of a default of the borrower. This claim can be critical in addressing risks associated with brownfield projects.

## **3. Enhancing Investment Climate**

These tools aim to facilitate the brownfield redevelopment process. They do not provide direct financial resources to developers, but they seek to make a distressed area attractive for future investments. Some of these are: tax increment financing, special service areas or taxing districts, modifying zoning and conveying tax delinquent properties.

### ***3.1. Tax Increment Financing***

Tax Increment Financing is a mechanism used by a public institution (for example, a Brownfield Redevelopment Authority) to raise the capital needed to support revitalization programs especially in distressed areas. The main concept of TIF programs is that new value will be created and that the anticipated growth in property taxes can be used to finance part of the activities needed in present to increase the value. A public institution can issue bonds to raise the capital needed for the redevelopment and the new tax revenues generated by the project are used to repay the bonds. Some states allow not only property taxes, but also school taxes to be captured and use tax revenues to perform some eligible environmental activities under a work plan previously approved. TIF programs are advantageous for public institutions because they do not constitute a full faith and credit pledge on the part of the issuing jurisdiction, but only a promise that new tax revenues flowing from increased property values will go toward bond repayment instead into local budget.

### ***3.2. Special Tax Districts***

The local government can impose a special fee in a defined district for a special service or activity. The jurisdiction uses additional revenues to finance the improvement either directly for the area or to issue bonds to fund area projects.

### ***3.3. Convey Tax-Delinquent Properties***

The municipality can convey delinquent properties to those developers that provide them with a viable redevelopment plan. Some cities use land banks to foreclose properties that can be reused further for economic redevelopment projects. The municipality can acquire land, demolish buildings, relocate businesses and make site improvement. It can also sell the property and use the money to make improvements.

### ***3.4. Modifying zoning***

The municipality can modify the zoning requirements that apply to a site in order to provide developers with the opportunity to earn a greater return on their investment and offset some site preparation costs.

### ***3.5. Land Use Control Approaches***

This is a similar tool, but the municipality decides the end-use of a property based on the potential risk that the contamination poses to the human health and the environment. The new designation allows the level of contamination to exceed the generic cleanup standard for that category if measure are taken to control the exposure to contamination. This tool also provides developers with the opportunity to implement projects that would bring a greater rate on investment.

### ***3.6. Regulatory Relief***

The local government can provide private investors with regulatory relieves from the legal obligations regarding cleanup standards or zoning regulations depending on the future use. Also, local government can give faster approvals or greater certainty on

approving projects. These measures can give more certainty to potential lenders that the project will succeed, therefore making easier the access to capital investment.

#### **4. Other Supportive Services**

Local municipalities and economic development agencies can provide counseling support to those companies willing to invest in brownfield redevelopment projects, increasing their chances of success. Those companies that invest for the first time in brownfield projects need support to identify and comply with those requirements that apply to this type of projects. They also need support to identify financial resources to cover the costs with cleaning up the sites. Therefore, local municipality or other economic development agencies can provide them with management assistance and loan packaging assistance.

##### ***4.1. Loan Packaging Assistance***

Local economic development agencies or local municipality can provide businesses that invest in brownfield projects assistance to assemble capital from several sources, including applying for loans or grants offered by different public institutions for brownfield cleanup and development.

##### ***4.2. Management Assistance***

Local municipality or economic development agencies can offer management seminars or counseling services to help small or new businesses investing in brownfield sites to manage these projects and meet all the requirements that are needed to address the contamination potential.

## **II. Financial Incentives to Reduce Lenders Risk of Financing Brownfield Projects**

Lenders are interested that developers to have enough capital or cash flow to pay back the loans, the market value of the collateral not to diminish in time and developers to be protected against environmental contamination and possible health risk problems. Some of the financial incentives presented above, are indirectly encouraging the lenders by making them more willing to finance brownfield projects. For example, through loan guarantee programs, the public institutions secure lenders that in case of default, they would be pay back the loan, thereby reducing lender's concern with borrower's cash flow or the value of collateral.

### **1. Voluntary Cleanup Programs**

Public institution can offer some protection from future state enforcement action to those developers that voluntarily agree to cleanup a contaminated site. Such protection can be in the form of "no further action" or "certificates of completion", which means that no removal or remedial action at these sites would be taken, unless imminent substantial endangerment to public health or the environment. The owners of these sites are still liable for any contamination that would create substantial risk to public health or the environment.



## 2. Environmental Insurance

In order to limit the liability for contamination, local government can buy environmental insurance and then provide it to developers and property owners. Although it is still a new tool and it tends to be expensive, the types of protection that are offered tend to be very diverse ranging from cleanup cost cap, professional liability, coverage for parties working on site, legal defense coverage and regulatory action coverage.

- a. *Professional liability insurance* covers mistakes made in property cleanup and decontamination issues.
- b. Insurance can be purchased by *parties working on a site* either conducting businesses or environmental contamination cleanup. It provides protection against damages from contaminant exposure, coverage for economic damage for inability to use a site or for reduced property value.
- c. *Legal defense insurance* provides coverage for regulatory or enforcement lawsuits made either by enforcement agencies or injured parties.
- d. *Cleanup cost cap insurance* provides coverage from the costs of cleanup that developers have to pay. This type of insurance is critical in circumstances with a higher likelihood of unforeseen costs.
- e. *Regulatory action insurance* offers protection against costs associated with future government actions that require additional cleanup.

Local government simply informs potential developers and other private sector interests about the availability of the insurance. Still, this tool is new and not much expertise exists about how to manage it.

## 3. Constraints on development on greenfield sites

Local government support brownfield redevelopment by establishing constraints on new developments on greenfield sites (Meyer 2000). These constraints can make the development on these sites prohibitive by raising the costs of developing on greenfields. These constraints can take several forms, such as: urban growth boundaries, designation of greenbelts, agriculture land conservation, exactions that add costs to new constructions on open land for services such as infrastructure expansion or public facilities.

## III. Alternative Approaches to Brownfield Redevelopment

The classic theories about economic development start from the assumption that the investors are interested in getting profit, but, in some cases, the investors can pursue other goals that do not have a monetary value, but the value rests in the use itself. In the last years, especially European cities have identified alternative approaches to redevelop brownfield sites that are abandoned by normal market.

The alternative investments include: temporary uses, and everything from civic action projects to cooperatives, foundations and “progressive investors” (Schmidt apud Oswaltdt 2007). The alternative investors pursue values and goals other than monetary

ones, meaning the values of uses in themselves, not the returns. They redevelop sites where classic investments fail, due to lack of return.

The concept of temporary uses is more often used for those ephemeral activities of interested parties that have little capital to invest. The temporary uses are related to experimental uses and forms of co-operation, they create space for social interactions and people give cultural meaning to what was found there. Sometimes they represent seeds for long-term developments.

Another new concept related to brownfield redevelopment is the “space pioneers” used by Leibniz Institute for Regional Development since 2003 (Oswalt, 2007). The space pioneers address a wide variety of regeneration projects in fields such as commerce, art, culture, education, ecology, science research and development. The difference between these projects and the classical economic projects is that they are conceived exclusively to prevent the disappearance of a rich tradition. The pioneer investors take advantage of a change in order to generate a different industry, another way of life, which can recycle what is still useful (Herrerros apud Oswaltt, 2007).

### **Application of U.S. Approach to Brownfield Redevelopment in Romania**

Brownfield redevelopment is just into an initial stage in Romania. Romanian government has acknowledged the impact that brownfields have on communities where they are located, but still there is no adequate understanding of the unique characteristics of these sites. Before making any specific recommendation regarding how the U.S. and the European approach to brownfield redevelopment can be applied to the Romanian context, some more general recommendations should be made. These general recommendations should be viewed more as possible preliminary steps to any redevelopment strategy.

#### **Preliminary recommendations**

First, the local government officials, planners, economic development agencies and other stakeholders should strive to achieve a better understanding of what brownfield sites are, their unique characteristics, their impact on the communities/regions where they are located, as well as the specific barriers that diminish their potential for redevelopment. The decision makers should agree upon what brownfield sites are because a commonly accepted definition is essential in order to perform an inventory of existing brownfield sites.

The second preliminary step that local government should perform is an inventory of brownfield sites, their location, total area and a preliminary assessment of the contamination level. Once, a better understanding exists of how many brownfield sites are and where they are located, a decision should be made about which type of sites should be the focus of the redevelopment. For example, based on the U.S. approach, the state government concentrates on cleaning-up those brownfield sites that pose imminent health and environmental risks. Our recommendation is that for the beginning, the redevelopment strategies should concentrate primarily on those sites that have potential for redevelopment, but lenders and developers are reluctant to invest.

In the same time, it is important to evaluate the impact of the previous brownfield redevelopment programs that Romanian government already implemented in distressed areas, such as enterprise zones, business incubators and small loan programs. A better understanding of whether those incentives achieved the desired outcomes is important to be performed before adopting new policies.

A clear commitment should be built among stakeholders with regard to the importance of brownfield regeneration and redeveloping strategies should be adopted. The level of involvement of the public and private sector should also be decided. Is the public sector going to coordinate the process of redevelopment, or is it going to play an intermediary role that stimulates and supports private market players to get involved in the redevelopment process? Once the general role is decided, the more responsibilities should be divided among different levels of government, based on their responsibilities.

### **What U.S. Approaches Can Work in Romania?**

Based on the U.S. approaches, some of the brownfield redevelopment tools that we recommend to be implemented in Romania can be classified in: organizational tools, tools to make capital available for private investment and tools to provide supportive services.

The U.S. experience indicated that establishing Brownfield Redevelopment Authorities can be useful in coordinating the redevelopment process, developing and adopting a comprehensive redevelopment strategy and providing financial resources to cover a part of the project costs. Also, local government can create or provide incentives to private sector to create economic development agencies with the role of financial intermediary organizations responsible with providing financial resources for companies that are perceived of having a higher risk of investment.

Public sector can stimulate private sector to make more capital available for brownfield redevelopment projects through several mechanisms. It can work with commercial banks to stimulate them to offer loans at a subsidized rate. The public sector would cover a part of the interest rate, and therefore making the loans more affordable to those developers that are perceived having a higher risk and therefore asked for a higher interest rate. Public sector can guarantee the loans for projects that have collateral that can depreciate its value in time, due to contamination risks. This is an easy to manage tool, since a public institution usually has to cover a defaulting loan very rare.

Another useful tool to cover some of the costs of a brownfield project would be a revolving loan fund. Local government or an economic development agency can create a revolving loan fund to cover some activities such as contamination assessment or site cleanup. Once the loan is paid back, new projects can be financed. Usually, funds are made available at an interest rate lower than the market rate.

Local and national government can provide private developers with tax abatements or tax credits when investing in activities related to brownfield redevelopment. Also, national government can create tax advantaged zones, such as enterprise zones, to encourage companies to relocate and invest in disadvantaged areas. In the same time,

local government can decide to create a special district and to increase taxes or to introduce a new tax in this district. The additional funds collected would be used as a pledge for issuing a bond to finance infrastructure improvements in the respective area. A tax increment financing program would not be feasible to implement yet in Romania, since property taxes are not adjusted based on the market value, but based on a fixed rate. Also, property taxes are low and they represent just a small percentage of total revenues to local budget.

National government can provide grants to the local government to support brownfield redevelopment projects. The grants could be used to finance activities, such as contamination cleanup and infrastructure improvements. European Union is providing the member countries with funds for urban regeneration. These funds can be used as matching funds for a grant program.

Local and central government could provide supportive services to companies interested in brownfield redevelopment projects. Local government can convey properties and assemble larger lots of land. It can also provide assistance to smaller or new companies to apply for loans, grants and tax abatements when redeveloping brownfield sites. Local government can change the zoning of a site to allow a new use, thereby to provide the developer with a more profitable opportunity to develop the property. The cleanup standards can be changed based on the type of use to be developed, health risk to exposure. Therefore, the standards can be lowered when the contamination is capped and the exposure to contaminants does not pose health risks for people.

Public sector in Romania does not have the financial resources to cleanup all the brownfield sites and then return them to private sector for future redevelopment. Therefore, we recommend the public sector to play the role of an intermediary institution that connects the resources available for investment with redevelopment ideas. The public sector could also provide incentives to help market players to overcome their risks and to be more willing to invest in brownfield sites. Therefore, we recommend innovation in the form of partnerships that can be established between public and private sector.

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