



ECONOMIC EFFECTS OF INFRASTRUCTURE
INVESTMENT AND ITS FINANCING

Economic Effects of Infrastructure Investment from the Land-based Financing

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Abstract

The challenges of the modern world, such as urbanization, the urgent need to increase access to infrastructure are forcing many countries to look for new solutions to support economic growth and a sustainable development agenda. Meanwhile, there is the problem of the infrastructure investment gap, when state development institutions are in dire need of money to implement the long-term infrastructure projects. According to The Global Infrastructure Outlook, the demand across 50 countries and seven sectors to 2040 for investment resources may reach \$97 trillion US dollars (Oxford Economics, 2017). To solve this problem, the active participation of private companies is proposed through the framework of public-private partnership. In July 2016, G20/OECD Task Force on Institutional Investors and Long-term Financing provided the supporting note to the Guidance Note on Diversified Financial Instruments, Infrastructure to the G20 Finance Ministers and Central Banks Governors and the G20 leaders. Land-based financing was indicated among innovative financial approaches; its mechanism uses land jointly with financial/tax instruments (such as tax increment financing), so that infrastructure investment spurs growth in the economic sector as a whole. At the same time, there are a number of challenges when applying this tool that should be resolved for practical successful implementation.



Challenge

Land-based financing (LBF) is an investment tool used by governments to generate income from private land and then redistribute it through private actions with stakeholders. We can see a promising side of the land-based approach in developing countries, since land can become a profitable asset with proper management and tax measures, and the national currency will be used to protect against risks. Let's draw attention to the complex aspects that require collective decisions.

Investors may experience complex difficulties

Some of these difficulties are associated with raising capital and investor confidence, while others are dictated by unformed money circulation tools. Key concerns include a possible land asset bubble, misunderstanding of how "unlocking" land value may work, risks, lack of interactions policies and so on (UN-Habitat, 2016).

States do not know what to do and how

The policy of state participation and coordination with private capital should be formed with consideration of account tax, managerial and even socio-cultural factors. The key task is also to explain how public authorities can exchange land assets for infrastructure assets. This understanding should inspire states to provide the necessary institutional, legislative, taxation and other measures (OECD, 2018).

Tax instruments may still be unpopular

Tax policy has been and remains a sensitive issue, especially as Western models cannot simply be replicated in the context of developing countries. At least 6 land-based financing taxation tools exist, each with its own pros and cons. Tax uncertainty, thus, forces states to choose between excessively high or



insufficient rates, opportunities and risks (UN-Habitat, 2016).

Decentralization is considered an inappropriate step leading to loss of control

Decentralization is an important decision, as it allows cities to grow, therefore infrastructure not to be too centralized either. However, this step is difficult for states that must transfer the management of literally vital assets to cities. On the other hand, cities can not use effective tax, management and other measures, because they simply have no rights to do so (OECD, 2017).

Working to solve this complex of problems (which can include dozens of different objections and controversial points) can help stakeholders start land-based financing and earn revenues.

Proposal

Various solutions can be proposed for more effective implementation of the LBF tool.

The first step is a systematic approach and long-term participation

Designed solutions from time to time return us to the basic concepts related to investment, taxation and institutional approaches. The first solution can be a systematic approach, acting cross-disciplinary in all areas, to obtain the most effective results. A systematic approach involves investing in cities as a whole, but not in individual projects, which is why land-based financing involves such complex (i.e. "core") measures as legislation, municipal management, taxes, and even reforms. Analyzing the highlighted difficulties, we can suggest the following measures.

What needs to be done:

- Creation of unified tax, legislative, enforcing policies;



- Sharing opportunities between the public and private sector;
- Focus on long-term expectations and stable land management.

Long-term participation implies that the processes last long, are complex and require certain changes, or upgrades. The creation of infrastructure and the respective economy, which appears around it and generates income takes a long time. Reforms are not created to work one day a year. Ultimately, such a large-scale problem as the provision of clean water in developing countries requires the largest amount of investment, as well as it needs effective measures. This is, therefore, not a project that investors and states can start merely gathering enough capital. While using a long-term (systemic) approach states can also solve the missing-middle problem by introducing private capital to public funds (UN-Habitat, 2016).

Launching decentralization and transferring rights to municipalities

Institutional reform is a must for the implementation of land-based financing. Whether there is a meaningful intermediary government between the national government and the local government, it is often the case that the central authority must adopt enabling legislation creating the legal framework for the land-based financing instrument. The local government must then adopt a local ordinance implementing the instrument and setting out the details for its administration within the local context. Municipalities will be able to gain the institutional capacity to manage debt or a portfolio of built assets. This will open the way to balanced capital management. Central, local authorities, private capital can be involved in a dialogue to build win-win frameworks, when decentralization becomes an effective measure, not a risk, from a financial point of view among others (OECD, 2017).

From this perspective, we can see reform as an opportunity to exchange municipal provision of services for public-private partnership which allows to improve the quality of services delivered. Grant financing of municipal infrastructure can be replaced by debt financing. Finally, cities will be able to get the quality services, operating with capital and developing infrastructure, which is the basis of economic development. However, before giving the



municipalities elevated rights, it is necessary to understand that they can come to a certain financial stability. Municipal revenue streams can be improved by rational fiscal policy; in other words the stability of own-source revenues.

In developing countries, the state can be far from people, and grant projects do not provide effective results, especially systemic ones. But decentralization makes the state closer to society. Decentralization as a set of policies and frameworks delays revenues where it works, elected officials become more responsible, and the development of local government capacity increases.

Land shows advantages by generating revenue

Public and private participation in land-based financing changes the outlook on what land can give. By selling or leasing publicly owned land, states receive income for infrastructure investments. The states, guided by the opinion of the specialists, should provide that the expectations from the land financing should not be overstated, but rather rational. The obtained revenue cannot be used in the operational budget but must work to developing the infrastructure complex.

The other related question may be: how do private, public wealth, value compare? Is it possible that public action/investment can lead to increased private wealth? Public actions can increase the well-being of all who are connected with the land. There are many tools, such as partnerships, joint participation of the state and the private sector, but another side is adherence to the policy on users of services.

Parties receive income which can be further invested and capitalized. Common goals bind the parties and allow to lead to a common result, such as infrastructure development.

Here's how to use land financing:

- Cover the cost of providing public goods;
- Cover the cost of providing public infrastructure investments;



- Stimulate efficient use of land;
- Receive state compensation for private use of land owned by the party-state;
- Cover the costs of managing private construction;
- Increase tax revenues;
- Create a land registration system.

The parties must also understand that land is a truly unique asset. That is why socio-cultural norms highly value land and can be perceived as a difficulty if we are not sensitive to them. People must know in advance what kind of land can be used, how it relates to the people and what are the possibilities to develop it.

Taxes are becoming a living tool for infrastructure development

Properly selected tax measures in combination with an understanding of the land-based tax regulation at all levels can play a key role in the infrastructure financing process. Recurring taxes on land and buildings can serve as follows:

- finance local infrastructure costs;
- provide benefits in public finances;
- lead to land value sharing.

It is also important to consider the following factors, such as:

- Compatibility of tax policy with the traditions of property management/taxation in the country.
- Creating a fiscal cadastre linking real estate with taxpayers. This allows parties to track all existing communications with a certain land.
- Tax policy should be formed taking into account modern realities. If markets are ready to introduce certain rates, then it can be set.



- Administrations should participate in the creation of tax policy and propose their measures, literally influencing the process of infrastructure development in real time.

Tax policy should be the subject of active discussion in every country. Many tools can be reviewed and applied regardless of how they worked in the west, for example, since the market specifics vary greatly from region to region. Annual property taxes may be revised and other tools reinstated. Betterment levies, especially when collected as special annual assessments, can improve the private investment area.

Developer exactions can mitigate the expected negative effects of development

The objectives with which this tool may be used depend on region specific. The infrastructure of each country may have its own characteristics. But, for example, developer exaction may offset the municipal costs associated with larger water and wastewater lines building, demand for vehicle access, public spaces etc.

Parties should contribute to establishing developer exactions at many levels, such as legal; planning; engineering; administration levels.

This tool has its negative sides, such as high prices, which returned to users of services. Therefore, fees should be considered with caution, in a system of comprehensive measures to ensure infrastructure projects and systemic reforms.

Investors should not be afraid “to enter this plot of land“

Private capital still assesses the risks of investing in developing countries. There are several systemic measures that can be taken by states and implemented at a broad level:



- Supporting the institutional capacity of municipalities;
- Creating a monitoring and reporting system to control decentralization;
- The implementation of measures related to debt financing;
- Regulation of the infrastructure introduction;
- The public sector still has to provide important parts of the projects;
- Governments should focus on dialogue with the private sector.

Finally, the debt must be expressed in local currency, since foreign income is limited in this sector. The use of local currency also prevents the currency risks associated with fluctuations in exchange rates and solves many issues of private investors.

It is also worth making it clear to investors that land is an excellent source of income, besides the fact that it may be a traditional little-used state asset.

The land has many advantages:

- The management of the land is more transparent, the land is in a fixed place;
- Land financing may allow subnational governments to gain independence;
- Taxes related to land ownership are generally less risky for the tax system as a whole, compared to other types of property.

From 9 to 10 percent economic growth depends on how the city's infrastructure is developed (Mathur, 2018). Transport is one of the most important areas for working in this space; although the mechanism for obtaining benefits from transport infrastructure is more like cost recovery, it is a necessary step to build an effective economic chain at all times, and this be taken at a higher level.



Creation of consistent policies

Consistent policies imply a holistic work of the land-based financing mechanism. Parties should also receive information on the detailed plans and projects directly, taking into account the systemic approach. Data on land, parties, partnerships, and legislation should be communicated to the parties and publicly disclosed.

Here is what is particularly important:

- Registration of land, identification of connections - land cadastre;
- Systemic legislation, each norm of which is in agreement with another norm;
- Support for processes involving state participation.

It is also possible that social policy is a lost moment, and specialists ought to pay special attention to other negative effects associated with the growth of economies in developing countries. The infrastructure will serve as a basis for solving the set tasks, but social analysis may also play an important role.

However there is still an extremely important condition to be mentioned. All these solutions to reduce the infrastructure gap will only work in developing countries with growing economies. It can not be done in crisis situations or in total poverty. In conditions of severe poverty, starvation or unemployment infrastructure development will most likely not be considered a priority field. That is why the first thing government should do is stabilize the national economy, and most preferably create conditions to support constant growth. Thus, states are stakeholders, on which the development of infrastructure in developing countries also depends. Governments representing the will of the whole country can find an opportunity for dialogue with the private sector, municipalities, developers and their own population in order to provide quality services, without which further growth and investor profits will not be possible.



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