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Marginal Effective Tax Rates and Investment Decisions in Egypt

Policy Viewpoint is intended to contribute to the discussion of ideas and policy options for enhancing economic development in Egypt. The series is based on research conducted by ECES. The content and recommendations are endorsed by the Center's Board of Directors.

There is a consensus that although taxation is not the only determinant of investment, it has a significant bearing on investment decisions through its impact on the net profitability of projects. Moreover, differential tax treatment may well distort investment allocation. Finally, in a globalized world characterized by increased capital mobility, a well-designed and neutral national corporate tax system has a strong influence on attracting foreign direct investment.

Recognizing the bearing of taxation on the cost of capital and investment, the Egyptian government has carried out a number of reforms, such as issuing Investment Law No. 8 in 1997, and reducing the tax on upper bracket incomes to equal that of the commercial corporate firms in 1998. Furthermore, the government has recently announced that it is close to issuing a comprehensive tax reform program dealing with tax rates, investment incentives, tax evasion and the informal sector. The program will address tax administration reform as well.

Acknowledging the importance of the government initiative, this *Policy Viewpoint* offers an estimation of the overall burden of the tax regime on investment in Egypt.[1] This estimate relies on the marginal effective tax rate (METR) on capital, which is a summary measure that captures the impact of all aspects of the tax regime, as well as the industry-specific and economy-wide characteristics, on the cost of capital and hence investment decisions.

Starting with a review of the shortcomings of the nominal tax rate (NTR), the study then presents estimates for METR in Egypt in an attempt to address the following questions: Does the tax regime in Egypt increase the cost of investment compared to some other countries? Does it impact investment decisions in a way that negatively affects the efficiency of resources allocation? Finally, it offers some broad suggestions to support the government's ongoing tax reform efforts.

Why the NTR Does Not Express the Overall Tax Burden on Capital

In most of the previous attempts to evaluate the impact of the tax regime on investment in Egypt, economists compared NTR on profit in Egypt to the corresponding rates in other countries (see Table 1). This method led to the conclusion that tax rates are relatively high in Egypt.

Although this comparison carries some truth, it does not accurately reflect the tax regime's overall impact on the cost of capital. In fact, NTR reflects only one aspect of the tax system, namely, the direct tax on profit, thus ignoring other types of direct taxes (i.e. real estate), various types of indirect taxes, tax exemptions, tax administration, and accounting rules for assessing depreciation. In addition, it overlooks some industry characteristics such as the fixed assets structure, and some important economic variables such as inflation and interest rate.

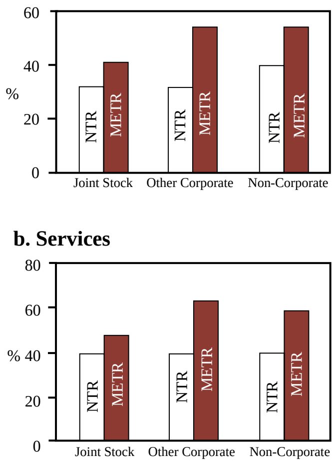
Table 1. NTR on Profit in Egypt and Some Selected Countries 2000 (%)

Country	*Tax Rate*	*Country*	*Tax Rate*
Egypt	32-40	Singapore	26
Turkey	33	Brazil	25
Korea	31	Peru	30
Indonesia	30	Chile	15

Source: KPMG (2000), KPMG Corporate Tax Rate Survey

Unlike NTR, METR provides a more comprehensive measure regarding the impact of the different aspects of the tax regime, as well as industry-specific and economic-wide parameters interacting with taxes, on the cost of capital. By formal definition, METR is the difference between the before-tax Internal Rate of Return (IRR) and the after-tax IRR expressed as a percentage of the before-tax IRR ((before-tax IRR_after-tax IRR)/before-tax IRR). For example, if the before-tax IRR is 16 percent and the after-tax IRR is 12 percent, then the METR is 25 percent.

Figure 1. NTR and METR in Egypt



Source: Authors' calculations

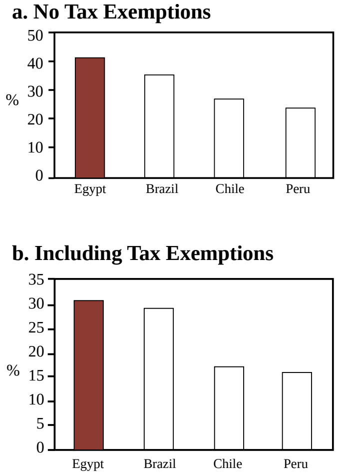
METR and Investment in Egypt

Despite continuous government efforts to reform the tax system, METR in Egypt remains higher than NTR (Figure 1), and also higher than METR levels in selected Latin American countries (Figure 2).

METR in Egypt, for example, reaches 42 percent in joint stock companies operating in the manufacturing sector, while NTR does not exceed 32 percent. Although the observed relationship between METR and NTR appears intuitively acceptable, given that indirect taxes are added in METR calculations, this comparison, nevertheless, remains useful for two reasons. First, it shows that investors in Egypt are facing higher taxes than what are revealed by the nominal tax rates. This implies that encouraging investment not only requires lowering NTR but also dealing with other tax elements that result in a higher METR. Second, it makes evident that the impact of the tax regime on the cost of capital could be lessened by lowering various types of direct and indirect taxes.

Figure 2. METR in Egypt and Selected Latin American Countries

(Manufacturing Firms)



Source: Egypt: Authors' calculations. Other countries: M. Bird, Richard et al (1999), Tax Incentives for Foreign Investment in Latin America, Inter-American Development Bank.

By comparing METRs in Egypt to those in selected Latin American countries, Figure (2.a) reveals that the METR for corporate firms operating in the Egyptian manufacturing sector (42 percent) is higher than the corresponding rates in Brazil (36 percent), Chile (27 percent), and Peru (24 percent). This comparison holds even after taking tax exemptions into account (Figure 2.b). Undoubtedly, Egypt's relatively high METR adversely affects local investment and the economy's ability to compete for the much-needed foreign direct investment that characterizes the new global market.

METR and Investment Decisions in Egypt

METR estimates point out that the tax regime in Egypt discriminates in a way that impacts investment decisions regarding the choice of legal form, economic activity, production strategy (inward or outward-oriented), sources of finance and asset structure. Below is an elaboration on the most prominent features of this discriminatory treatment.

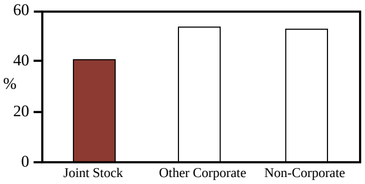
- The tax system favors joint stock companies listed on the stock exchange over other legal forms. In the manufacturing sector, for example, METR is estimated at 42 percent for joint stock companies compared to 55 percent in the case of other corporate firms and 54 percent for non-corporate firms (Figure 3).[2] This advantageous position is due to the annual paid-up capital allowance (equal to the product of their paid-up capital and the interest rate on bank deposits) granted to joint stock companies listed on the Egyptian Stock Exchange.
- METR estimates reveal that the tax system favors manufacturing activities over services. For example, METR reaches 55 percent for corporate firms other than joint stocks engaged in manufacturing, compared to 63 percent in the service sector (Figure 4). This lower METR for manufacturing is mainly due to the fact that manufacturing firms are subject to lower taxes on profit than services firms. Moreover, depreciation deductions regarding machinery and buildings are more generous to manufacturing activities than to services.
- Without modeling tax rebates and drawbacks provided to exporting firms, METR estimates show that the tax system does not favor exporting over inward-oriented activities except in the case of non-corporate firms. In this case, exporting firms face a lower METR (51 percent) compared to non-corporates producing for the local market (54 percent). (Figure 5).

- The tax regime favors financing by debt over equity in all economic activities and legal forms, except for joint stock companies. This is because the tax law allows for the deductibility of interest payments on loans from taxable profit. As can be seen from Figure 6, in the case of corporate firms (other than joint stock) operating in the manufacturing sector, METR drops from 37 percent to 34 percent when firms rely on a 3:1 debt-equity ratio. However, this does not apply to joint stock companies, which partially lose the paid-up capital allowance when resorting to debt finance.
- The tax regime favors investment in land and buildings over machinery and means of transportation. Figure (7.a) shows that in the case of joint stock companies, METR on land is 25 percent compared to 44 percent on machinery. This discrimination against machinery and means of transportation can be attributed to the effect of customs duties and the sales tax.

In brief, although tax reform efforts have narrowed the severe tax treatment disparity, the tax regime in Egypt still favors joint stock companies over other legal forms, manufacturing activities over services, financing by debt over equity, investment in land and buildings over machinery and means of transportation, and export activities only in the case of non-corporate firms.

Figure 3. METR across Various Legal Forms of Companies in Egypt

a. Manufacturing



b. Services

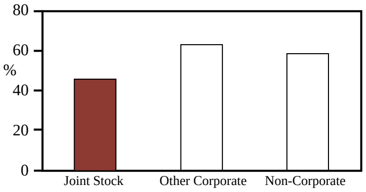


Figure 4. METR and Economic Activities

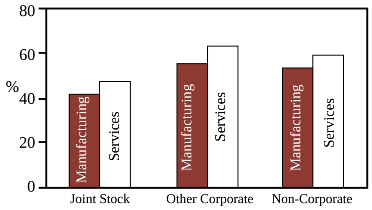
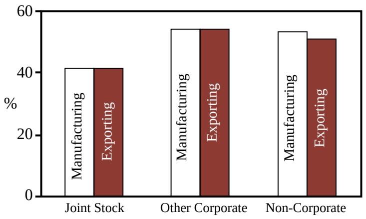


Figure 5. METR and Exports



Source: Authors' calculations

The Impact of Tax Exemptions on METR

Up until now, this analysis has focused on METR without taking tax exemptions into account. However, this dimension cannot be overlooked in any thorough analysis of Egypt's tax system, which relies heavily on tax holidays to stimulate domestic and foreign investment. According to the Investment Incentives Law (Law 8/1997), there are two types of tax exemptions. The first concerns in-land projects, while the second deals with projects located in the free zones.

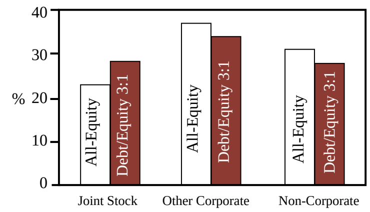
The impact of tax exemptions on METR can be summed up in three specific points (Figure 8)[3]:

First, exemptions play an obvious role in reducing METR on all forms of companies and on both manufacturing and services activities. In the case of non-corporate firms operating in the services sector, for example, exemptions on in-land projects lower METR from 58 to 36 percent.

Second, exemptions granted to firms operating in free zones lower METRs much more significantly than those granted to in-land projects. An example of this can be found in the case of exemptions granted to joint stock companies operating in the manufacturing sector. While in-land projects experience a relative decrease in METR from 42 to 31 percent, METR on free zone projects drops to only 4 percent. This disparity is due to the fact that in-land exemptions affect direct taxes only, while in free zones, exemptions deal with both direct and indirect taxes.

Figure 6. METR and Sources of Finance

a. Manufacturing



b. Services

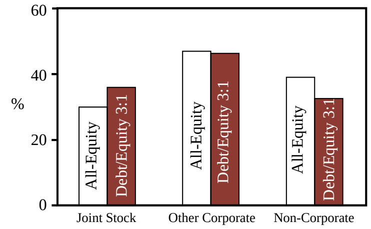
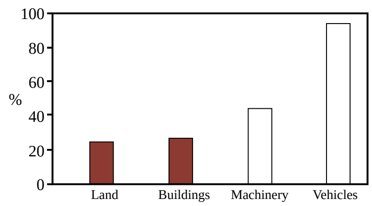
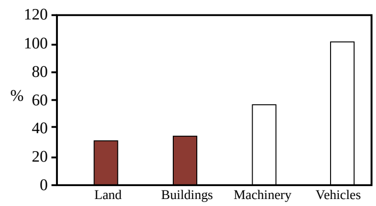


Figure 7. METR and Fixed Assets (Manufacturing)

a. Joint Stock Firms



b. Non-Corporate Firms



Source: Authors' calculations

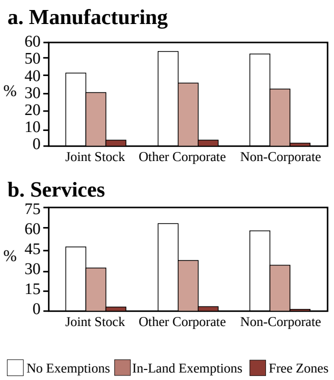
Third, METR estimates reveal that tax holidays granted to in-land projects mitigate the previously mentioned discriminatory tax treatment generally felt by all non-joint stock companies and the services sector. For example, before exemptions, METR on joint stock firms reaches 47 percent in the services sector against 41 percent on joint stock firms in the manufacturing sector. However, accounting for exemptions reduces METR to 32 percent for the former case, compared to 31 percent for the latter. The analysis also points out that exemptions granted to free zone projects almost equalize the overall tax burden between the various investment opportunities.

Although tax holidays, undoubtedly, alleviate the tax burden on investment, the cost effectiveness of these incentives remains questionable. A number of studies indicate that these incentives are costly for the budget, and its effectiveness in promoting investment has become debatable at the international level.

Policy Implications

The impact of the tax regime on investment in Egypt can be rendered in two basic conclusions. First, METR in Egypt is higher than NTR, and also than METR rates in some Latin American countries. Second, Egypt's tax system discriminates between different investment opportunities resulting in investment decisions based on tax rather than efficiency considerations.

Figure 8. METR and Tax Exemptions



Source: Authors' calculations

In light of these conclusions, this *Viewpoint* offers a number of broad suggestions to alleviate the overall tax burden on the cost of investment in Egypt, and to reduce tax discrimination. The objective is to create a more efficient, fair, and neutral tax system.

Towards Reducing the Tax Burden upon Investment

There are a number of ways to reduce the overall tax burden on the cost of investment. The first option is to lower the nominal tax rate. International experiences point out that such a reduction usually stimulates investment, and can be coupled with an increase in government revenues in the medium term. In this regard, the nominal tax rates in some developing countries (Table 1) may be of help. Second, the reduction plan should also include indirect taxes, especially tariff duties on intermediate inputs and capital goods. Besides raising the cost of production, indirect taxes discriminate against exports and investment in machinery. Next in importance is reducing the sales tax, particularly on capital goods. Finally, the reduction plan may include a combination of direct and indirect taxes.

Regardless of the reduction approach, the selection of taxes to be cut and the degree of reduction should rely on estimates of the elasticity of tax proceeds to tax rate reductions. The reduction plan should also take into account the expected impact on the public budget, which requires that reduction be coupled with a review of the system of tax exemptions as elaborated below.

Towards a More Efficient and Effective Tax Policy as a Tool to Guide Investment

With respect to the preferential tax treatment and its likely negative impact on the investment allocation pattern, the following suggestions may be useful:

- The adoption of more uniform tax rates on profit across economic activities and various legal forms in order to eliminate discrimination against services and non-joint stock legal forms.
- The rationalization of tax exemptions (stipulated in Income Tax Law 157/1981 and its amendments), and tax holidays (stated in Investment Law 8/1997). This would narrow the tax burden disparity between investors. It is also useful to consider the replacement of tax holidays with more neutral incentives, such as investment tax allowances or credits. The latter could take the form of accelerated depreciation for machinery or deducting a percentage of investment expenses from the tax base or due taxes.
- Finally, it is necessary to restrict tax exemptions in the free zones to export-oriented projects.

In conclusion, there is no doubt that any tax reform will stop short of spurring national investment if not coupled with a flexible and effective tax administration.

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[1] This topic is covered in greater detail in ECES Working Paper No. 45

[2] Partnerships limited by shares and limited liability companies are referred to as "other corporate"

[3] METR estimates are based on the assumption that the project is planned for 10 years with a 5-year tax holiday.

** The Arabic Version of this Policy Viewpoint is Dated October 2000*

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