

Working Paper Series

Macroeconomic Policy and Financing for Development Division

TAX INCENTIVES AND TAX BASE PROTECTION IN DEVELOPING COUNTRIES

WP/17/07

December 2017

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Please cite this working paper as:

Jun, Joosung (2017). Tax incentives and tax base protection in developing countries. MPFD Working Paper WP/17/07. Bangkok: ESCAP. Available from www.unescap.org/publication-series/mpfd-working-papers

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December 2017

Abstract

This paper considers the implications of using tax incentives for improving the tax base in developing countries, especially in the context of enforcement difficulties and international capital mobility. Noting that the tax structure in developing countries reflects pressures stemming from the large size of the informal sector and the prevalence of tax evasion in the formal sector, it suggests alternative channels through which the use of tax incentives can help protect the tax base, at least in the interim period. Governments can support the tax-paying local firms operating in the formal sector by providing tax incentives that appear to be more generous than warranted by their perceived effects on marginal investment, along with nontax benefits such as easier access to bank loans. In the process, foreign firms that are prone to tax evasion via profit shifting might be discriminated against, explicitly or implicitly, through a variety of regulations.

In addition, the paper argues that the efficacy of investment incentives in attracting foreign investment is understated and the prospect of base erosion due to tax competition is overstated in the literature. The conventional prediction that the incentive effects increase with stronger investment climates may be technically correct, but seems to be too simplistic as a policy prescription. Smaller effects of investment incentives imply lower revenue costs unless these incentives are redundant. At the margin, therefore, tax incentives can possibly be wasted in countries with stronger investment climates, while they can be effective in countries with weak investment climates but strong rent potential such as natural resources or other locational advantages. Even countries with weak investment climates and low rent potential can still use such incentives as a signaling tool for prospective investors at a low revenue cost.

The case study of Hong Kong, China; Singapore and Republic of Korea confirms that effective use of tax incentives critically hinges on country-specific factors and priorities, defying ‘one-size-fits-all’ best practices. In Hong Kong China, market-friendly investment environments, including a simple tax system with low and uniform rates, were a dominating factor to attract foreign investors. Singapore has been very proactive in providing foreign investors with generous tax incentives as part of investment-friendly environments, but has adjusted the extent of these incentives with their declining efficacy at the margin. In contrast, Republic of Korea provides a case in which countries with relatively weak investment climates can still make good use of tax incentives. The potential role of its tax incentives has sometimes been stretched beyond their purported goals, effectively serving as an incentive for firms not to shift their operations into the informal sector or abroad.

This paper discusses various proposals that can reduce informal activity and tax evasion, which can also lead to a reduction in corruption. It also suggests that countries set statutory corporate tax rates in conformity with the neighboring countries with similar economic attributes in the face of increased profiting shifting by multinationals. Then, existing investment incentives can be adjusted in a most cost-effective way, taking into account country-specific characteristics such as general investment climates, the nature of local rents and the size of the informal sector as well as policy environments such as administrative capacity and the efficacy of the overall tax system.

JEL classification Numbers: E620, H200, H500

Keywords: Fiscal policy, public expenditure, revenues, taxation

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I. Introduction

Tax incentives have been widely used in developing countries to promote economic growth, though their cost effectiveness has been challenged by fiscal experts for many years.¹ In addition to foregone revenue, tax incentives can incur distortions in resource allocation, complicate tax administration and provide opportunity for corruption and rent-seeking.²

The empirical evidence on their benefits, though, is very sparse and inconclusive.³ The question is then why governments have made use of such a seemingly ineffective and inefficient instrument, in lieu of a regular budget expenditure, to support a targeted activity.⁴ One immediate answer in the practical context of policy-making is that unlike budget expenditure, tax breaks do not require a new source of revenue to finance an activity. Tax revenue in developing countries is generally low so that their governments have to operate a tight budget in financing infrastructure and public education. Instead of introducing a new spending item, governments may find it convenient to choose a tax expenditure that can even be heralded as a ‘tax cut.’

A more standard explanation for the continued popularity of tax incentives is related to foreign investment that could bring capital and technology to a host country. While tax is one of the many factors that determine multinational corporations’ investment location,⁵ governments might prefer to use a more visible and readily available tool like tax holidays rather than making efforts to improve the overall investment climate such as macroeconomic stability and adequacy of public infrastructure. However, the literature has consistently doubted the efficacy of investment incentives per se, emphasizing the importance of the synergy of tax and nontax factors. The observation that investment incentives were often used as a way to compensate for investment climate deficiencies in many countries (OECD 2008) was frequently cited as a worst practice, though this negative connotation will be challenged in this paper. The literature also noted the possibility of ‘a race to the bottom’ engendered by increased tax competition as legal and economic barriers on capital mobility have been lifted.

This prediction of tax base erosion seems to be exaggerated considering the complex nexus of investment motives of multinationals and the differing attributes of host countries. In practice, as argued below, smaller effects of investment incentives would likely be offset by lower revenue costs unless these incentives are literally redundant. Rather, a more worrisome base-erosion threat in the context of international investment may be profit shifting by foreign firms through such tax saving devices as transfer pricing.

¹ For a recent survey of the literature, see Zolt (2015).

² For cases of positive externalities, a proper use of tax incentives can collect revenue and improve resource allocation at the same time.

³ Unlike the revenue cost, the benefits of tax incentives is not easily quantifiable. See Zee et al. (2002) for a review of the past empirical studies and James (2013) for a recent econometric evidence. Both papers recommend a cautious approach in implementing tax incentives, stressing the importance of general investment climates in enhancing their efficacy.

⁴ James (2013) reports that there are regional disparities by type of incentives. For instance, R&D tax incentives are most actively used in the OECD countries and those in the East Asia and Pacific region while tax holidays are prevalent in developing regions such as South Asia, Latin America and Caribbean, Eastern Europe, and Central Asia.

⁵ The choice of investment location hinges on many nontax factors such as economic and political stability, infrastructure and institutional strength, availability of a trained labor force and opportunities for above-normal returns.

The existing literature has also noted that administrative complexity and statutory arbitrariness associated with tax incentives would provide an opportunity for corruption and rent-seeking, incurring a variety of social costs. If governments in poorer countries are less able to withstand the inevitable political pressures to favor some sectors over others, they might choose policies contrary to overall national welfare. James (2013) shows that ‘discretionary’ tax incentives, which are more prone to abuse and waste than an automatic triggering mechanism, are still prevalent in many regions of the world.⁶ Corruption has been one of the major policy challenges facing developing countries and its implications for tax revenue have been recognized in the literature.⁷ The prevalence of corruption weakens the culture of compliance, thereby increasing tax evasion. In order to reduce the abuse of tax laws for private gain, tax policy should be designed in a way to minimize the discretion of tax officials. In addition, administrative capacity needs to be enhanced so that more information on taxable transactions is available to government authorities. After all, corruption and tax evasion arise because they are hard to observe.⁸

The government cannot observe transactions made in the informal sector. Even in the formal sector, cash transactions are hard to catch since they leave no paper trails. Gordon and Li (2009) assess the policy implications discernible from the optimal tax literature in cases where the presence of the informal sector is taken into account, and find that many of the seemingly perverse policies observed among developing countries can easily make sense as ways to respond to such evasion pressures. This hypothesis may possibly provide another clue to the seemingly puzzling popularity of tax incentives in developing countries. In the face of enormous evasion pressures, the government might be using tax incentives, combined with certain nontax benefits, as a means of preventing firms from shifting into the informal sector or evasion-prone activities. To the extent that the government perceives such base protection effects of tax incentives to be large enough to justify the associated costs, their choice appears to be a reasonable response on second-best grounds.

One of the key objectives of tax policy for developing countries is promoting growth, which entails shifting resources into sectors with higher productivity and activities with more positive spillovers. Tax incentives are a typical instrument with which to internalize positive externalities such as the information spillover from innovative activity. Some form of subsidy to R&D thus merits consideration, and many developing countries indeed have such a subsidy. As in the case of investment incentives, however, R&D incentives might not be as effective as the government expects unless other contributing factors accompany them. The availability of technology-related personnel is one example. Note, also, that start-up firms in which much of the R&D activity likely occurs, do not qualify for the R&D credit due to a lack of taxable income. Loss-offsetting tax provisions are not adequate in many developing countries, distorting the innovation incentives not just for start-up firms but also for existing firms.⁹ To neutralize these distortions, some compensating subsidy to innovative activity, especially in start-ups, can be provided. In addition, developing countries should encourage

⁶ Since the focus of this paper is on economic effects of tax incentives, administrative considerations are not discussed here despite their practical importance.

⁷ For example, IMF (2016a); Tanzi and Davoodi (2002), and Besley and Persson (2014).

⁸ Lack of requisite information has a broader implication for the tax design. Optimal lump-sum redistributive taxes are impossible because individual’s abilities are not observable. An income tax is distortionary however broad its base is because it distorts the work-leisure decision.

⁹ A perfect loss-offsetting system put profitable existing firms at a competitive advantage.

foreign firms to undertake R&D activity locally, which may require offering augmented tax incentives as well as improving the R&D climate.¹⁰

Often, a success story becomes a yardstick for policy design. Several Asian countries with a remarkable economic success such as Republic of Korea and Singapore have made extensive use of tax incentives in their growth process, and this positive correlation was often contrasted with the less favorable experiences in other parts of the world (Tanzi and Shome 1992; Bird 2000). Even in these countries, however, it is unclear whether the incentive policy was actually effective and, if so, through what route. In this regard, Singapore and Republic of Korea present an interesting comparative case in that they both have made extensive use of investment incentives in the process of capital accumulation, but the ways they worked were quite contrasting. A case in point is that while Singapore has been very successful in hosting foreign direct investment as part of its growth engine, Republic of Korea has witnessed a meager presence of foreign firms despite a generous treatment of investment in the tax laws. The combination of investment incentives and investment-friendly environments witnessed in Singapore is in consistent with the best-practice suggestions made by international organizations (James 2010). In contrast, the overall investment climate in Republic of Korea was not as favorable as in Singapore as described in Section 4. The Korean government went further to the point of implicitly discriminating against foreign investors in favor of local companies through regulations and administrative practices.

The Korean example is puzzling since the effects of tax incentives on marginal investment by local firms are estimated to be weak.¹¹ If investment allowances and credits were not sufficiently effective, why then would the government keep these incentives in place despite their implied revenue and efficiency costs? Political factors might well have worked to some extent considering the cozy relationship between large firms and the government there. But this alone could not be an adequate explanation for the continuity of tax incentives. It is hard to imagine that a country can make such a remarkable economic progress while wasting valuable fiscal resources in such a way. Notably, tax revenue has steadily increased from 17% of GDP in 1980 to the current 25% in Republic of Korea. One possibility is, this paper suggests, that there is an alternative route through which tax incentives may promote investment. That is, incentives can be used to support firms that pay more in taxes, and the increased revenue can be used to finance growth-promoting infrastructure. Probably, the Korean government has favored local companies because they made a greater contribution to its revenue base than foreign investors.

The comparison of Singapore and Republic of Korea implies that tax policy needs to be designed and evaluated taking into account country-specific factors. Among developing countries there can be large differences in economic and political structures, with different countries facing different constraints. Even among countries that pursue a growth-oriented tax policy, a tax structure that might be desirable for one could be undesirable for another. In the context of tax incentives, therefore, best practices based on optimal tax theory and the experience of advanced countries should be considered with caution for most developing countries. In countries with strong investment climates such as Hong Kong, China and

¹⁰ The presence of qualified R&D personnel is a major factor influencing a multinational's decision to choose its R&D location.

¹¹ According to unpublished government studies in Republic of Korea, the effects of most investment incentives are very limited. The World Bank (1993) reports a very modest contribution of tax policy to economic growth, i.e. about 6 percent of total GDP growth for the period 1962-82.

Singapore, investment incentives could generate expected results. For most developing countries, however, it is a remote possibility to build infrastructure and human resources in a short period of time. Providing tax incentives then can be a second-best option if appropriately designed taking into account country-specific factors. This paper examines various channels through which tax incentives can be better exploited, with differing suggestions reflecting different economic structures.

This paper is organized as follows. Section 2 provides an alternative case for the use of tax incentives, focusing on their base protecting roles in countries facing enforcement difficulties. Section 3 examines the implications of international capital mobility for the corporate tax base, focusing on tax competition through incentives and base erosion by multinational's choice of profit location. Section 4 presents a case study featuring three East Asian miracle countries – Hong Kong, China; Singapore and Republic of Korea, all of which have made a remarkable economic success during the past decades. Section 5 summarizes key policy implications of the analysis presented above.

II. Enforcement difficulties and the second-best policy

The tax level and structure are influenced by the nation's policy objectives, economic structure and administrative capacity. In the early stages of economic development, growth objectives are a dominant force shaping the tax system in most countries. In the interest of promoting economic growth, raising sufficient revenue to finance public infrastructure is a primary concern of tax policy, but the government's ability to collect taxes hinges on the extent of information available to it on the earnings of firms and individuals. To the extent that transactions are made in cash, leaving no paper trail, tax enforcement is not easy. Thus, information is at the root of enforcement problems, including issues of corruption as described in the previous section.

The conventional recommendations for the optimal design of tax policy typically ignore, though, the complications created by the presence of an informal economy and problems arising from tax evasion. Taxes not only discourage labor supply and savings but can also induce greater effort to evade taxes and can push more activity into the informal sector, even at real economic costs. These additional sources of potential inefficiencies in response to taxes force a re-evaluation of the tax system observed in developing countries. As seen in table1, observed tax structures among developing countries are sharply different from those seen in developed countries and those recommended by the optimal tax literature such as the personal income tax as the major source of tax revenue, low tariffs and inflation, and no intersectoral distortions. Personal income taxes, though, play a relatively minor role relative to corporate income taxes, and tariffs remain an important source of tax revenue in developing countries.

Table 1. Tax structure in developing and developed countries, 2013

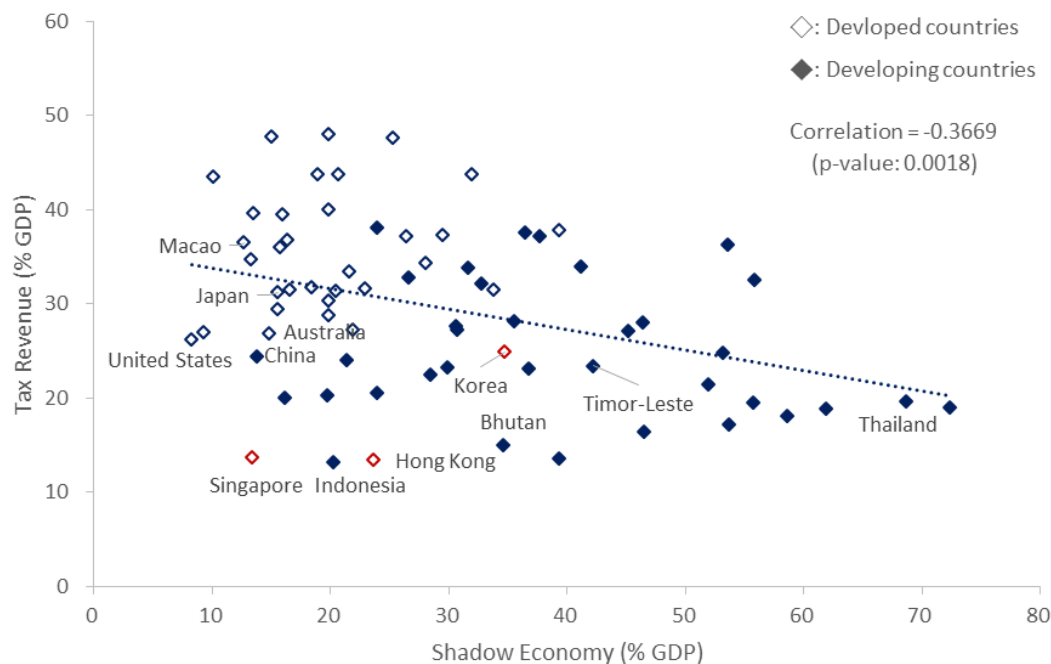
	Tax revenue	Personal income tax and social security contributions	Corporate income tax	Consumption taxes	Property taxes	Border taxes	Shadow economy
	% GDP	% of total tax revenue					% GDP
Developing countries average ^{1,2}	24.5	27.1	14.8	45.4	2.1	7.2	39.3
Developed countries average ^{1,2}	34.1	49.3	9.9	33.5	4.0	0.3	20.2

Source: IMF, *Government Finance Statistics*; Hassan and Schneider (2016).

Note: (1) Unweighted averages. (2) Countries are classified according to IMF (2016b) classification: 39 developing countries and 35 developed countries.

Tax revenue as a fraction of GDP is low in developing countries, reaching roughly two-thirds of that for developed countries as a group. The lower tax revenue figure does not seem to reflect differences in statutory tax rates between developed and developing countries, with top personal and corporate tax rates are not much higher among developed countries. Instead, the revenue difference largely reflects differences in the size of the informal economy. The estimated size of its informal sector, at around 39.3 of GDP, is much larger in developing countries as a group than in developed countries (20.2%). If activity in the informal sector were taxed at the same rate as the recorded ratio of tax to GDP, the revenue gap would be much narrower with tax revenue as a fraction of GDP rising to 34.1% for the developing country group and 41% for developed countries. This implies that reducing evasion and informal activity should be a central concern in tax policy for developing countries. As seen from figure 1, tax revenue is negatively correlated with the size of the shadow economy among sample countries. The existing literature also notices the potential negative effects of the shadow economy on tax revenue (Schneider and Enste 2000; Bird et al. 2008), though evidence based on direct estimation is limited.

Figure 1. Shadow economy and tax revenue, 2013



Source: IMF, *Government Finance Statistics*; Hassan and Schneider (2016).

Note: Countries are classified according to IMF (2016b) classification: 35 developed countries and 35 developing countries.

While the optimal tax literature recommends avoiding any intersectoral distortions in production (Diamond and Mirrlees 1971), effective tax rates can reasonably be different across sectors once the presence of the informal sector is taken into account.¹² Specifically, variation in tax rates by industry will be appropriate, given differences across industries in the ease with which firms can shift into the informal sector. Tax rates will be kept low in sectors where firms can easily shift into the informal sector, while tax rates may be high, to compensate for lost revenue, in sectors where firms have little opportunity to operate in the informal sector.¹³ The same logic can apply to firms within a given industry. For example, capital-intensive firms, say, in a manufacturing sector, cannot easily operate in the informal sector, since equipment and structures can be easily detected by tax authorities. In addition, large firms tend to show high compliance because they would find it very difficult to bypass services of financial institutions for their transactions, thereby leaving observable trails to tax authorities. By imposing higher taxes on these large and/or capital-intensive firms, taxes can be lowered for the remaining firms to help keep them in the formal sector. This implies shifting the tax burden from labor to capital income, partly explaining the importance of the corporate tax in developing countries. Tax compliance can also vary between domestic and foreign firms. Multinationals typically pay less tax than domestic firms through their use of transfer pricing, so that effective tax rates can vary between these two groups as well.

¹² See Gordon and Li (2009) for a more rigorous exposition of this hypothesis.

¹³ When effective tax rates vary by sector, tariffs should differ by industry in order to avoid trade distortions.

A. Base-protection roles of tax incentives

These differential tax rates by type of firm introduce distortions discriminating large capital-intensive domestic firms against small domestic firms and multinationals. To the extent that these distortions can be offset through other policies favoring those firms that are paying more in taxes, there can be a resulting efficiency gain. For example, firms bearing more tax burden can be given easier access to bank loans or other government privileges, as seem to be the practice in many developing countries.¹⁴ Also, investment incentives that appear to be more generous than warranted by their perceived effects on marginal investment can effectively have a base-protecting role of keeping firms from shifting into the informal sector or abroad. In addition, multinationals may face restrictions when operating in sectors where domestic firms face relatively high effective tax rates.¹⁵ Note that investment incentives can possibly have stronger effects when combined with such nontax benefits than a casual observation or a simplistic estimation predicts.

Tax incentives and related instruments can also help protect marginal firms from disappearing into the informal sector. The informal sector presumably consists largely of self-employed individuals, whose firms are small enough to avoid monitoring by the tax authorities. According to World Development Indicators, the self-employed among developing countries comprise a substantial fraction (37.4% in 2013) even of the formal labor force, much higher than that for developed countries (14.3%).¹⁶ They must comprise a much larger fraction of the overall labor force, once those working in the informal sector are counted. Given the difficulties of monitoring the activity of the self-employed, many countries impose presumptive taxes for small firms, with the effective tax rate lower than for larger firms. The lower effective rates for small firms could help reduce evasion, which may result in revenue gains on net.

For instance, the Korean government has implemented simplified tax schemes under which value-added is estimated to be equal to some specified fraction of a firm's turnover, with the fractions specified in the statutes varying by industry.¹⁷ Among the firms using this simplified scheme, actual value-added as a fraction of turnover is higher than is allowed under the statute in most industries. This scheme may be an appropriate compromise, given the ease with which these small firms can shift into the informal sector, but it can also give firms an incentive to underreport their sales to qualify for the simplified VAT. To reduce this distortion, the government provides a tax credit for qualifying firms that voluntarily forego using the simplified scheme. The low compliance and preferential treatment of the self-employed, though, raised the issue of horizontal equity between employees and the self-employed, prompting the government to provide very generous tax subsidies to wage and

¹⁴ In Republic of Korea, for instance, credit was directed in favor of export-oriented manufacturing firms; implicit loan guarantee enabled large firms to be heavily leveraged, generating interest deduction benefits (Jun 2010).

¹⁵ For example, multinationals can face requirements on ownership (a minority partner) of a domestic company. Since the domestic partner with the controlling interest does not benefit from transfer pricing, tax evasion through transfer pricing may be reduced as a result.

¹⁶ These figures are the average for 50 developing countries and 36 developed countries, respectively, for which data is available.

¹⁷ See Gordon and Jun (2013) for a detailed description of this system and other related policies.

salary workers.¹⁸ Such tax breaks have certainly contributed to the narrow base of the personal income tax, though.

As a more fundamental solution to the monitoring problem, the Korean government introduced tax subsidies for use of credit cards in late 1990s. Since then, credit card usage has dramatically increased, increasing the government's ability to monitor transactions and putting pressure on firms in the informal sector to allow customers to use credit cards. Over the first ten years with this policy in use, credit card usage has increased from a minimal to over 70% of consumption expenditures in Republic of Korea. Given the success of credit card subsidies, the government extended such subsidies to those cash transactions where a receipt is issued that is electronically reported to the tax authorities, again making evasion more difficult. In summary, the Korean example shows that tax incentives can be used not just for investment and employment but for base-protection roles per se. After all, it is an empirical question whether such policies are cost effective.

B. Backstop roles of the corporate income tax

While the above argument explains various ways through which tax incentives can help keep firms in the formal sector, the corporate income tax per se can play a role in keeping small firms from shifting into the informal sector. Owners and managers may leave their labor income within the company if the effective corporate (plus capital gains) tax rate are lower than the personal tax rates faced by them.¹⁹ Gordon and Slemrod (2000) report evidence that the reported corporate profit rates were very sensitive to the difference in the tax rates in the U.S., which suggests that this tax differential generates sizeable income shifting between personal income tax and corporate income tax bases.

While such income shifting certainly incurs efficiency costs, especially for large corporations, however, it may possibly mitigate such costs by providing an incentive for owners of small firms to remain in the formal sector. For them, the benefit of remaining in the formal sector and being incorporated may exceed the corporate tax due on them. Such income shifting may be an additional explanation for why the corporate tax in many developing countries yields so much revenue relative to the personal income tax. In this case, though, the corporate tax is imposed not on returns on capital but effectively on labor income. In this way, this scheme is parallel with the argument made above that small evasion-prone firms need to be taxed at a lower rate. While this backstop role of the corporate tax is important in countries facing enforcement difficulties with personal income, such tax differentials need to be reduced for efficiency reasons in the long run. In particular, reducing the incentive for corporate managers leaving their earnings within a firm may result in an efficiency gain.

¹⁸ In addition to the standard and itemized deductions as observed in other countries, various tax breaks were introduced such as an initial wage deduction, a special wage credit, and basic and extra exemptions for family members.

¹⁹ Any difference in effective tax rates on personal and corporate income creates an incentive to concentrate expenses where tax rates are high and income where tax rates are low. For example, when the corporate tax rate is higher, firms will make more extensive use of debt finance, with interest deductions against the higher corporate tax rate and large associated interest income taxable at the lower personal tax rate.

III. International capital mobility and the corporate tax base

As described in the previous section, the corporate income tax is an important revenue source in developing countries. In a globalized world, however, this base is likely to face erosion pressure as corporate activities become more mobile across national borders. This section describes the implications of international capital mobility for the corporate tax base, with a particular attention to tax competition among countries and profit shifting by multinationals.

The optimal tax literature suggests that a small open economy should not impose any tax on the return to capital invested in the country (Razin and Sadka 1991).²⁰ As long as a country is small relative to the world capital market, foreign (and domestic) investors will remain in the country only if the after-tax rate of return on their investment is as large as that available elsewhere in the world. Capital flows out in response to a tax until the reduced capital stock leads to an offsetting increase in the pre-tax rate of return to capital. In that process, equilibrium wage rates in the country drop, assuming labor is an immobile factor, reflecting the lower productivity due to the reduction in capital stock. A tax on the return to capital invested in a country then falls on domestic workers (or other immobile factors), which not only discourages labor supply but also hampers capital accumulation in the country. Such a tax is dominated by a higher tax on labor income.

Note, however, that this argument against taxation of the return to capital invested in a small open economy does not deny the presence of a corporate income tax per se. A corporate income tax with expensing for new investment does not impose any tax on the return to investment.²¹ Instead, the tax can still serve as a backstop to the personal income tax, imposing an additional tax on forms of labor income (self-employed income and compensations for corporate managers) that would otherwise be taxed lightly if at all under the personal income tax, as discussed in the above section.

The corporate income tax can also be defended on the basis of its role in taxing inframarginal profits or rents. In a closed economy, a tax on pure profits will be non-distortionary in that it would not change the investor behavior as long as the after-tax profits are still positive. Thus, unlike a tax on the normal return to capital, a rent tax does not change the investment level. In an open economy, on the other hand, the effects of a rent tax on domestic investment depends on the mobility of the economic activity that generates the rent. To the extent that rents are internationally mobile, any tax on them would reduce the level of domestic investment.

In order to understand the economic effects of the taxation of rents, then, it is important to know where those rents come from. If rents are generated as a result of entrepreneurial activity like a technological innovation, they are likely to be mobile and sensitive to relative tax rates in different locations. If the source of rents is location-specific, as in the extraction of natural resources, market access or other privileges earned through local connections, uniqueness in labor or infrastructure and agglomerations effects (Baldwin and Krugman 2004), such rents can be more readily taxable at the local level. Moreover, such locally embedded rents can serve as a means of exporting part of the domestic tax to foreign

²⁰ Note that this argues against any tax or regulatory restrictions on the return to capital invested by foreign multinationals in the country.

²¹ Expensing by itself assures that investment incentives are undistorted. Given expensing, any use of an ITC or other forms of tax savings linked to new investments would lead to a net subsidy to new investment, again leading to misallocations.

investors to the extent that foreigners own the domestic capital stock (Huizinga and Nielsen 1997, Mintz 1994).²²

Accordingly, the effectiveness of tax incentives for foreign investment is likely to be affected by the source of the potential rents available in the host country.²³ For location-specific rents, tax incentives might play a modest role since foreign firms have no choice but to operate in that particular location to earn them. If prospective rents are more of the firm-specific type, on the other hand, the local government may find it beneficial to provide tax incentives to attract foreign investors. The rent potential in the host country has an implication for the way tax incentives take effect in combination with investment climates. As implied in table 2, the conventional prediction that the incentives effects increase with stronger investment climates may be technically correct, but seems to be too simplistic as a policy prescription. Noting that tax is one of many factors that influence the investment location of multinationals, tax incentives can be effective but possibly redundant for a country with high rent potential plus strong investment climates. In the case of weak investment climates and low rent potential, tax incentives are not likely to be effective as indicated in the literature. Even in this case, however, tax incentives can be a useful instrument in that they can have a signaling effect on prospective investors at a relative small cost. Note that an ineffective incentive in general implies lower revenue costs.²⁴ Incentives may have stronger effects in the remaining cases in which one attribute is weaker than the other one. If a country is well stocked with natural resource but suffers weak nontax factors, tax incentives may have a marginal effect on foreign investment. Similarly, a country with relatively strong investment climates can use a tax incentive to compensate for its weak rent potential. Moreover, multinationals with a firm-specific advantage may prefer a location that could provide cost saving opportunities like tax holidays or low wages. The above observation challenges the negative connotation associated with the practice of using tax incentives as a means of compensating for weak investment climates among developing countries.²⁵ Of course, this taxonomy omits many other nontax determinants of foreign investment, but it illustrates that the government, if properly taking into account country-specific initial conditions, can more effectively exploit tax incentives than suggested in the literature. A proper mix of tax and other instruments can also enhance the overall investment effect though this is not a focus of this paper.²⁶

²² It is an empirical question if reported corporate profits represent a normal return to capital invested in the corporate sector or other forms of income including rents.

²³ In addition, even in the absence of legal barriers and economic risks, capital may not be perfectly mobile due to adjustment costs of physical capital.

²⁴ Even when there is no incentive effects, other social costs can still exist since incentives may complicate the tax structure.

²⁵ Of course, this presumes that incentive effects are large enough to be cost-effective.

²⁶ This paper does not address the details related to taxing foreign source income such as foreign tax credit and 'tax sparing.' As reported in Hines and Hubbard (1990), the attempt to impose domestic corporate tax on foreign source income has been largely ineffective. In this case, tax incentives can take effect even if foreign firms are in an 'excess credit' position in their home country.

Table 2. Incentive effects by investment climate and rent potential

	Strong investment climates	Weak investment climates
High rent potential	• Effective, but can be redundant	• Likely effective if properly used
Low rent potential	• Likely effective if properly used	• Ineffective but little revenue cost • Signalling effects in the long run

The corporate tax base can be eroded by income shifting schemes employed by multinationals. Besides the production location, multinationals have an opportunity to choose the location of profit to the extent that law and regulations allow. Facing different statutory tax rates in the jurisdictions where they have operations, they have an incentive to use transfer pricing to concentrate expenses in the country with the higher tax rate and income in the country with the lower tax rate. This type of income shifting typically occurs after they take full advantage of tax allowances available in a jurisdiction where they have an operation. The resulting pressures from such income shifting have been a major concern in the design of tax policy in OECD countries (OECD 2013). They have enacted special provisions to limit that income shifting undertaken through the location of debt finance and R&D, and there are further special provisions to limit the shifting of income to tax havens. In addition, countries are under pressure to lessen the difference in effective tax rates on income reported by the parent at home or by a subsidiary operating abroad, in order to lessen the incentives to shift income abroad. These pressures, though mostly a concern of advanced countries so far, are likely to play an increasingly important role in future discussions of tax policy in developing countries as well.

The above discussion demonstrates that in analyzing the tax effect on the behavior of multinationals, different tax measures need to be considered depending on the nature of their decisions. The choice of profit location is affected largely by the statutory tax rates as discussed above. On the other hand, the choice of investment or production decision is affected by the average effective tax rate that reflects both the statutory tax rate and investment incentives. In addition, the company decides how much to invest in a given production site, where the effective marginal tax rate is the relevant measure. A company invests up to the point where the marginal product of capital equals the user cost of capital like in a closed economy setting.²⁷

IV. The cases of Hong Kong, China; Singapore and Republic of Korea

This section presents a case study comparing the incentive policy in three Asian miracle countries – Hong Kong, China; Singapore and Republic of Korea. Explanations for common ingredients in their success formulae abound - export promotion, a well-trained labor force, and entrepreneurship linked with government policy, to name a few - but relatively little comparative evidence on their tax policy is available. While their tax policy is largely growth-

²⁷ This paper does not address this aspect of tax incentives, which generally does not distinguish domestic and foreign firms.

oriented, the specific strategies vary significantly among these countries. Hong Kong, China has maintained a market-friendly tax policy with a simple, low-rate tax structure. Singapore has been very proactive in providing foreign investors with investment-friendly environments including generous tax incentives. Unlike these two, Republic of Korea's incentive policy seems to have focused on supporting local companies with an implicit aim of protecting its tax base.

Table 3. Economic and tax structure in Hong Kong, China; Singapore and Republic of Korea, 2013

	Hong Kong China			Singapore			Republic of Korea		
	% GDP	% TAX	% FDI	% GDP	% TAX	% FDI	% GDP	% TAX	% FDI
<i>Economic structure</i>									
GDP at current prices	100.0			100.0			100.0		
Total CIT ¹ and GST/VAT ²		100.0			100.0			100.0	
Total FDI (stock)			100.0			100.0			100.0
Goods producing industries	7.0	n.a.	2.4	23.6	20.0	18.1	37.2	46.2	43.5
Manufacturing	1.4	5.6	0.8	17.4	8.2	17.7	28.2	30.7	39.6
Construction	3.9	n.a.	1.6	4.7	8.3	0.4	4.5	9.4	1.7
Utilities	1.6	n.a.	-	1.4	2.5	-	2.1	5.8	2.0
Agriculture, fishing, mining and quarrying	0.1	n.a.	-	0.0	1.0	-	2.3	0.3	0.2
Services producing industries	91.2	n.a.	97.6	70.5	80.0	81.9	54.0	53.8	56.5
Import/export, wholesale and retail trades	24.5	24.9	10.0	17.2	24.3	17.2	8.1	19.6	12.0
Transportation and storage	5.9	n.a.	1.9	6.6	4.9	3.8	3.3	2.3	2.2
Accommodation and food services	3.5	n.a.	0.3	2.0	2.8	0.4	2.4	2.9	4.3
Information and communications	3.6	n.a.	0.7	3.8	4.9	1.1	3.5	n.a.	1.0
Finance and insurance	16.2	45.6³	n.a.	10.9	17.5	48.1	5.1	7.8	17.2
Others ⁴	27.2	n.a.	n.a.	25.7	25.7	11.3	31.6	20.0	19.8
Ownership of premises/dwellings	10.3	-	-	4.3	-	-	-	-	-
Taxes on products	3.5			5.9			8.8		
Statistical discrepancy	-1.7			-			-		
Exports	228.0			192.4			53.9		
FDI inflow	27.0			28.3			1.1		
FDI stock	490.3			231.0			16.6		
<i>Tax structure</i>									
	% GDP	% TAX	Top rate	% GDP	% TAX	Top rate	% GDP	% TAX	Tax rate
Total tax revenue	13.4	100.0		13.6	100.0		24.9	100.0	
Personal income tax and social	2.8	21.1	15.0	2.0	15.1	20.0	11.0	44.0	41.8

contributions										
CIT	5.7	42.5	16.5	3.8	28.0	17.0	3.1	12.4	24.2	
GST or VAT	-	-	-	2.5	18.6	7.0	4.4	17.7	10.0	
Memorandum										
Shadow economy (% GDP)	23.7			13.4			34.8			
Corruption perceptions index ⁵ (Score, out of 100)	75.0			86.0			55.0			

Source: Census and Statistics Departments, Hong Kong, China; Inland Revenue Department, Hong Kong, China ; Department of Statistics of Singapore; Inland Revenue Authority of Singapore; The Bank of Korea; Ministry of Trade, Industry, and Energy, Korea; IMF, *Government Finance Statistics*; World Bank, *World Development Indicators*; KPMG; Hassan and Schneider (2016); Transparency International, *Corruption Perceptions Index* (2013).

Notes: (1) Hong Kong, China: final tax assessed, Singapore: net tax assessed, Republic of Korea: total tax payable; (2) Hong Kong, China: no GST/VAT, Singapore: net GST contribution, Republic of Korea: adjusted tax payable; (3) Includes property, investment and finance, banking, insurance companies and insurance agents; (4) Hong Kong, China: real estate, professional and business services, public administration, social and personal services; Singapore: business services and other services; Republic of Korea: real estate and leasing, business activities, public administration and defence, education, health and social work, cultural and other services; (5) The CPI standardises data sources to a scale of 0-100 where a 0 equals the highest level of perceived corruption and 100 equals the lowest level of perceived corruption (Corruption Perceptions Index 2013).

To begin with, table 3 compares economic and tax structure among the three. As a free port and global financial hub, trade and finance sectors are most important contributors to GDP in Hong Kong, China. Its manufacturing share in GDP was only 1.4%, much lower than the level observed in Singapore (17.4%) and Republic of Korea (28.2%) as of 2013. The sectoral distribution of foreign direct investment and tax revenue is roughly comparable to that of GDP in all three countries with the share of service industries much larger in Hong Kong, China and Singapore than in Republic of Korea. Reflecting their export-oriented economic structure, exports as a fraction of GDP are very high, reaching around 200% in Hong Kong, China and Singapore. Notable is the sharp difference in the importance of FDI between Republic of Korea and the other two, which may reflect differing strategies with respect to promoting investment and protecting tax base. Tax revenue as a ratio of GDP is much higher in Republic of Korea at 25%, versus the level of 13% in Hong Kong, China and Singapore. The share of the corporate income tax is high by international standards among all three while its importance is more remarkable in the two city-states. Also, Hong Kong, China and Singapore earned high marks in the corruption perception index while Republic of Korea is lagging way behind. The size of the shadow economy is also very high in Republic of Korea while that in Singapore is close to the average of advanced countries.

Taxation is a major tool for government intervention in the markets. Hong Kong, China has maintained a liberal, non-interventionist stance with a simple tax regime with low and uniform tax rates. Top personal and corporate tax rates are 15% and 16.5%, respectively, and there is no general sales tax like a value added tax. Tax revenue is accounted for mostly by taxes on income and profits (more than 60%) and taxes on property transactions.²⁸ While tax incentives are available to promote certain targeted activities (Appendix 5), they are within the bounds of neutrality and level playing field without discriminating domestic and foreign

²⁸ Taxes on income and profits and taxes on financial and capital transactions accounted for 63.6% and 14.5% of total revenue as of 2013, respectively.

residents. To attract foreign investors, Hong Kong, China has put an emphasis on improving general investment climate instead of introducing distortionary tax preferences like tax holidays. As seen in table 4, the list of investment incentives is short relative to those observed in Singapore and Republic of Korea. In a way, Hong Kong's, China tax policy seems more market-friendly than other rich countries in that it focuses on minimizing the efficiency costs of distortionary taxes, even to the point of being called a tax haven.²⁹

In sharp contrast to Hong Kong, China; Singapore has made an aggressive use of investment incentives as part of its growth strategy since its early stage of development. Facing a relatively unfavorable environment – economic as well as geographical - after independence, a broad-based incentive framework has been applied to almost every manufacturing and financial activity (Phua and Halkyard 2012).³⁰ While those incentives were streamlined later to support more targeted activities like entrepreneurship and R&D,³¹ they are still prevalent across sectors and activities as seen in table 4 and Appendix 6. This change in the focus of tax incentives has been accompanied by a steady decline in statutory corporate tax rates since the mid-1980s.³² The corporate tax rate is now 17%, one of the lowest levels in the world along with Hong Kong, China. A variety of nontax factors, such as low level of corruption, political stability and well-educated labor, have contributed to favorable investment climates in Singapore, which was critical in improving the efficacy of tax incentives, a trademark of Singapore's growth strategies.

Table 4. Investment incentives in Hong Kong, China; Singapore and Republic of Korea

Classification		Type of Incentive	Hong Kong, China	Singapore	Republic of Korea
Activity	Investment	• Tax credit	O	O	O
		• Tax deduction			O
		• Investment allowance			O
	FDI	• Tax reduction and exemption for companies closing overseas business places and returning to homeland	O	O	O
		• Reduced withholding tax			
		• Tax holiday			
Activity	FDI	• Exemption for local taxes	O	O	O
		• Stamp duty relief			
		• Reduced corporate tax rate			
	R&D	• Deduction for qualifying expenditure		O	O
		• Grants			
		• Free Trade Zone			
Activity	R&D	• Exemption for income from technology acquisition			O
		• Non-taxation on capital gains of venture capitals			O

²⁹ In fact, Hong Kong was included in the EU's first list of tax havens.

³⁰ Singapore has recently tried not to be called a tax haven by strengthening regulations on transfer pricing and information sharing.

³¹ In Singapore, about 6% of total R&D is financed by foreign business enterprises, which amounts to about 10% of total business R&D in Singapore (OECD, Main Science and Technology Indicators).

³² The statutory corporate tax rate was 40% for more than two decades.

		<ul style="list-style-type: none">• Tax credit• Deduction for qualifying expenditure• Investment allowance• Reduced or nil withholding tax rate• Cash rebate• Grants	O	O	O
			O	O	O
Sector	Manufacturing /Service	<ul style="list-style-type: none">• Tax exemption• Investment allowance• Tax credit• Deduction for qualifying expenditure• Reduced corporate and withholding tax rate• Grants	O	O	O
					O
					O
					O
					O
					O
	Trading	<ul style="list-style-type: none">• Reduced corporate tax rate• Zero GST or zero-rate		O	O
				O	O
	Financial service	<ul style="list-style-type: none">• Tax exemption(offshore)• Reduced corporate tax rate• Stamp duty concession	O	O	
			O	O	
		O	O		
Corporate tax rate			16.5%	17%	10,20,22%
Foreign source income			Territorial	Territorial	Worldwide

Source: IBFD; Deloitte; PricewaterhouseCoopers; Economic Development Board; Hawksford; Steven Tan Russell Bedford PAC; Legislative Council of Hong Kong, China; Ministry of Strategy and Finance, Korea.

Republic of Korea's tax policy for investment promotion in general and foreign investment in particular, including various allowances and credits, does not seem to be much different from those observed in other countries though not as aggressive as in Singapore, as seen in table 4 and Appendix 7. Its effectiveness in attracting foreign investment, however, is quite questionable compared to the case of Singapore. The low level of FDI in Republic of Korea has been puzzling since FDI has the potential not only to provide an additional source of capital, but also to provide access to the latest technologies and forms of management and corporate governance in use elsewhere in the world.³³ Foreign capital has been imported largely in the form of loans during the decades of fast economic growth, which were redirected through state-controlled banks to domestic firms.³⁴ Direct evidence on the reasons for this avoidance of direct foreign ownership of local firms is not available, but it might have helped to protect tax revenue, since multinationals tend to pay lower taxes through income shifting across borders. The government has employed various explicit or implicit restrictions on foreign firms in areas where they compete with domestic conglomerates, rendering a weak investment climate for foreign investors.

³³ Appendix 3 compares FDI in selected countries.

³⁴ Trade deficits reached almost 10% of GDP in the 1970s, which financed imports of machinery equipment needed for promoting heavy and chemical industries.

Table 5. Investment climate in Hong Kong, China; Singapore and Republic of Korea

Index	Hong Kong, China	Singapore	Rep. of Korea	13 AP ^I average
<i>Investment climate for foreign investors</i>				
• Public sector contracts are sufficiently open to foreign bidders	7.6	7.7	4.8	6.1
• Investment incentives are attractive to foreign investors	7.5	7.8	5.2	6.3
• Ease of doing business is supported by regulations	8.0	8.2	5.0	5.8
• Number of days to start a business*	2.5	2.5	4.0	18.3
• Number of procedures to start a business*	3.0	3.0	5.0	6.4
• Protectionism does not impair the conduct of your business	8.0	6.8	5.3	6.3
• Foreign investors are free to acquire control in domestic companies	8.8	7.8	6.0	6.2
• Capital markets (foreign and domestic) are easily accessible	8.8	8.1	6.5	7.1
• Subsidies do not distort fair competition and economic development.	7.7	6.9	5.5	5.6
• State ownership of enterprises is not a threat to business activities.	7.8	6.5	5.9	6.3
<i>State efficiency</i>				
• The legal and regulatory framework encourages the competitiveness of enterprises.	7.7	7.6	4.9	5.6
• Adaptability of government policy to changes in the economy is high.	5.8	7.7	4.8	5.3
• Government decisions are effectively implemented.	5.4	7.8	4.7	4.8
• Transparency of government policy is satisfactory.	5.9	7.3	4.7	5.0
• Bureaucracy does not hinder business activity.	5.9	6.4	4.3	4.0
• Bribery and corruption do not exist.	6.9	8.2	4.7	4.7
Index	Hong Kong, China	Singapore	Rep. of Korea	13 AP ^I average
<i>Investment climate for foreign investors</i>				
• Public sector contracts are sufficiently open to foreign bidders	7.6	7.7	4.8	6.1
• Investment incentives are attractive to foreign investors	7.5	7.8	5.2	6.3
• Ease of doing business is supported by regulations	8.0	8.2	5.0	5.8
• Number of days to start a business*	2.5	2.5	4.0	18.3
• Number of procedures to start a business*	3.0	3.0	5.0	6.4
• Protectionism does not impair the conduct of your business	8.0	6.8	5.3	6.3
• Foreign investors are free to acquire control in domestic companies	8.8	7.8	6.0	6.2
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• Subsidies do not distort fair competition and economic development.	7.7	6.9	5.5	5.6
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<i>State efficiency</i>				
• The legal and regulatory framework encourages the competitiveness of enterprises.	7.7	7.6	4.9	5.6
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• Government decisions are effectively implemented.	5.4	7.8	4.7	4.8
• Transparency of government policy is satisfactory.	5.9	7.3	4.7	5.0
• Bureaucracy does not hinder business activity.	5.9	6.4	4.3	4.0
• Bribery and corruption do not exist.	6.9	8.2	4.7	4.7

Source: IMD, *World Competitiveness Yearbook* (2013).

Notes: (1) AP countries included: Australia, China, Hong Kong, China, India, Indonesia, Japan, Republic of Korea, Malaysia, New Zealand, Philippines, Singapore, Taiwan, Thailand; (2) Indicators are expressed as scores on a 0-10 scale, unless otherwise annotated with an asterisk (*), with 10 being the most desirable outcome.

Table 5 compares estimates of the investment climate based on surveys of foreign operations among the three countries. In most areas, Republic of Korea is significantly lagging behind the other two. For example, foreign investors find it more difficult to acquire control in local companies and to take more time to set up a new facility in Republic of Korea than in Hong Kong, China; and Singapore. Foreigners seem to feel discriminated against in government contract bidding, regulations, subsidy policies, and access to local capital markets. Republic of Korea's investment climates for foreign investors appear to be even less attractive than the average of its neighboring Asian countries including Japan and China. Not surprisingly, foreign investors find Hong Kong, China; and Singapore to be a very attractive location on almost all counts. The role of government, though, is quite contrasting between the two. While Hong Kong, China maintains a liberal, open approach to economic activity, putting itself on the very top of economic freedom indices worldwide, Singapore has pursued very interventionist policies, along with Republic of Korea, as illustrated in the tax incentive policy. Notable is that Singapore excels in state efficiency items compared to its neighbors (Table 4.3). This suggests that a given incentive is likely to be more cost-effective in Singapore than, say, in Republic of Korea because administrative costs and corruption possibilities associated with tax incentives might be much lower in Singapore.

The above discussion confirms that strong investment climates are an important factor in attracting foreign investment. Hong Kong, China has been successful in inviting foreign investors without much support from the tax system though tax incentives are offered to some targeted areas. Singapore is the case where aggressive investment incentives are combined with investment-friendly policy environments, though the specific empirical evidence on incentive effects is not available. As mentioned in Section 3, tax incentives might be overused in case that nontax factors are strong enough to attract foreign investment. In fact, Singapore has adjusted its incentive policy from an aggressive, broad-based incentive scheme at earlier stages of development when its competitive advantage was limited, to a more target-based one coupled with lower statutory tax rates in the mid-1980s when it already became an attractive investment location. In Republic of Korea, however, the presence of rather generous investment incentives has not impressed prospective foreign investors. Despite the statutory neutrality between domestic and foreign firms, most of investment credits and allowances seems to be at the disposal of local companies. Considering the status of Republic of Korea as a manufacturing powerhouse, it is hard to dismiss the role of tax incentives in the process of capital accumulation regardless of the evaluation of their effectiveness.

Table 6. Distribution of corporate income tax in Singapore and Republic of Korea, 2013

Singapore				Republic of Korea			
Number of companies			Tax paid	Number of companies			Tax paid
Top	3.4%	2,049	83.5%	Top	0.01%	54	38.7%
	4.0%	2,392	85.4%		0.05%	235	57.3%
	4.9%	2,963	87.8%		0.2%	931	71.5%
	6.4%	3,895	90.6%		0.7%	3,344	81.6%
	10.0%	6,062	94.2%		1.5%	7,741	87.3%
	14.7%	8,925	96.4%		5.4%	27,900	94.2%
	19.2%	11,640	97.4%		12.2%	63,320	97.3%
Total	100.0%	60,535	100.0%	Total	100.0%	517,805	100.0%

Source: Author's calculation based on *Statistical Yearbook of National Tax (2014)* and *Yearbook of Statistics Singapore (2014)*.

As seen in table 6, a large fraction of revenue originates from a few large firms, with top 0.05% accounting for more than half of the total corporate tax in Republic of Korea. Singapore also shows a high concentration of corporate taxable income, though to a lesser degree. As discussed in Section 2, large firms find it very difficult to bypass services of financial institutions, resulting in a lower rate of evasion.³⁵ Large firms then have an incentive to cooperate with the government on tax compliance in exchange for various tax and nontax benefits including generous incentives, easy access to credit and implicit loan guarantees. As mentioned before, Republic of Korea has attempted to protect its tax base by supporting the local firms operating in the formal sector instead of relying on a FDI-driven growth strategy. In the process, foreign firms might have been discriminated, explicitly or implicitly, through a variety of regulations and a close relationship between the government and local companies. Even lack of transparency seems to have worked against foreign firms disproportionately. Wei (2000) reports evidence that corruption in host countries distorts the composition of inward capital flows – away from FDI and toward bank loans. Using firm level data in Republic of Korea, Jun (2014) shows that a variety of quasi-taxes including entertainment expenses might have a significant ‘greasing’ effect on the sales of local companies.

V. Policy implications

This paper has considered the implications of using tax incentives for the tax base in developing countries, especially in the context of enforcement difficulties and international capital mobility. Noting that the tax structure in developing countries reflects pressures stemming from the large size of the informal sector and the prevalence of tax evasion in the formal sector, it suggests alternative channels through which the use of tax incentives can help protect tax base at least in the interim period. In addition, this paper argues, the efficacy of investment incentives in attracting foreign investment seems understated and the prospect of base erosion due to tax competition seems overstated, at least in those countries where sources of rent are likely to be locally embedded. The success stories of Hong Kong, China; Singapore and Republic of Korea imply that effective use of tax incentives critically hinges on country-specific factors and priorities, defying ‘one-size-fits-all’ best practices. This paper shows that while investment incentives work well in conjunction with strong investment climates, their roles should not be precluded in countries with weak investment climates. This section presents a summary of policy implications drawn from the previous sections.

As discussed in Section 2, conventional recommendations for tax incentives are based on the optimal tax theory and the empirical, though limited, evidence on their effectiveness. This paper suggests that, on second-best grounds, tax incentives might play a role in protecting the tax base in countries facing evasion pressures. Specifically, it stresses the importance of preserving the corporate tax base which accounts for a significant share of total revenue in most developing countries.³⁶ In the long-run, however, the corporate tax base is likely to face erosion pressures stemming from increased capital mobility across the borders.

Thus, the first step to broaden the tax base in developing countries would be the efforts to reduce informal activity and tax evasion so as to put more economic activities under the coverage of the personal income tax and a broad-based consumption tax. This direction for tax reform is in line with the experience of developed countries and the first-best implications of the optimal taxation literature.

³⁵ Capital-intensive firms are presumably more closely tied to the financial sector because their needs to raise capital make bank loans valuable.

³⁶ Note that part of corporate taxable income consist of earnings by entrepreneurs and corporate managers as described before.

Table 7. Base-broadening potential in selected Asia-Pacific countries, 2013

	(1) Shadow Economy % GDP	(2) Total Tax Revenue	(3) (1)/(2) Ratio	(4) $\frac{(2)}{(1) + 100}$ %	(5) $\frac{(2) + (1) \cdot (2) \cdot 0.01}{100}$ % GDP
United States	8.3	26.1	0.3	24.1	28.3
Singapore	13.4	13.6	1.0	12.0	15.4
China	13.8	24.4	0.6	21.4	27.8
Australia	14.8	26.8	0.6	23.3	30.8
Japan	15.6	31.2	0.5	27.0	36.1
Indonesia	20.3	13.1	1.5	10.9	15.8
Mongolia	21.4	24.0	0.9	19.8	29.1
Hong Kong, China	23.7	13.4	1.8	10.8	16.6
Bhutan	34.6	15.0	2.3	11.1	20.2
Republic of Korea	34.8	24.9	1.4	18.5	33.6
Malaysia	37.4	16.3	2.3	11.9	22.4
Philippines	38.7	16.2	2.4	11.7	22.5
Timor-Leste	42.2	23.4	1.8	16.5	33.3
Thailand	68.7	19.6	3.5	11.6	33.1
Average	27.7	20.6	1.5	16.8	26.1
OECD average	20.7	33.8	0.7	28.1	40.8

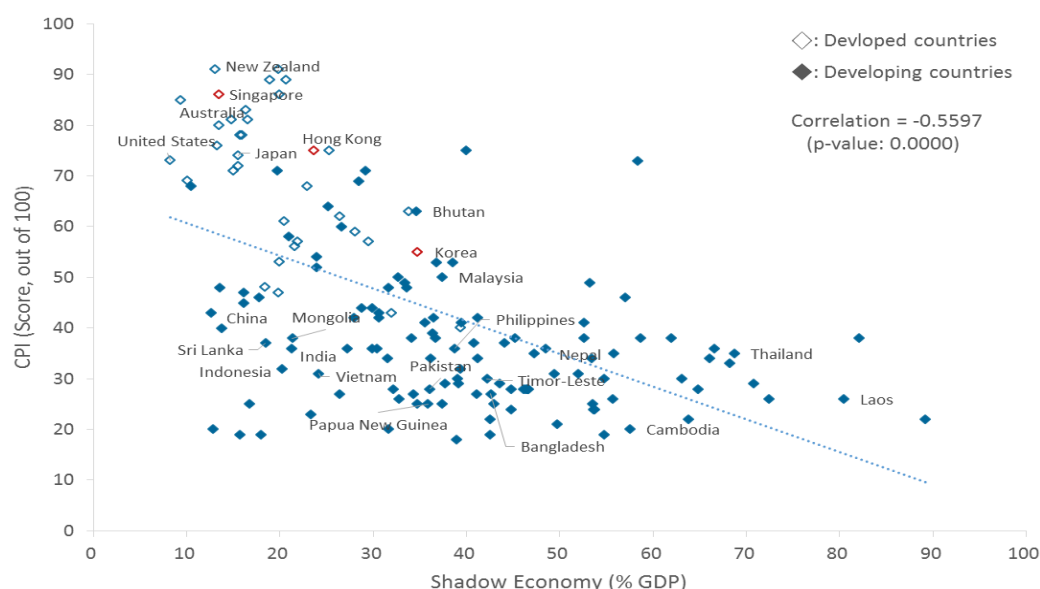
Source: Hassan and Schneider (2016); IMF, *Government Finance Statistics*; OECD, *Revenue Statistics in Asian Countries* (2016); OECD, *Revenue Statistics* (2015).

As seen in table 7, the potential benefit of reducing evasion is huge among countries with a relatively large informal sector. The size of shadow economy was larger than tax revenue among many sample countries, more than three times larger in Thailand. The base-broadening potential can be inferred by measuring the ratio of current revenue to the combined value of transactions in the formal and informal sector. The effective taxation of overall economic activity seems very low in Bhutan, Indonesia, Malaysia, the Philippines and Thailand, reaching the level in Hong Kong, China. As another example, what if all shadow transactions were taxed at the current revenue ratio? In the U.S. and Singapore, for example, the change in the revenue-GDP ratio is not that significant, reflecting their small size of the informal sector. In contrast, the ratio would jump from 24.9% to 33.6% in Republic of Korea and from 19.6% to 33.1% in Thailand.

Often, corruption and tax evasion feed each other. One major form of corruption is underreporting of taxable earnings by rich taxpayers in connivance of government officials. If the activities generating taxable income are more readily observable, both tax evasion and corruption can be reduced. Since the size of the informal sector critically hinges on the observability of economic activity, policies that reduce informal activity can also be effective in improving transparency. As seen in Figure 5.1, the corruption perceptions index (CPI) tends to be high among countries with a smaller size of shadow economy relative to GDP, with a correlation coefficient of -0.56. The rich countries in the sample belong to this category (U.S., New Zealand, Australia, Singapore and Hong Kong, China, for example), whereas relatively poor countries are placed under the trend line. Often, the government tries to solve the problem of evasion and corruption by giving officials more enforcement power, but this policy is likely to backfire because unchecked power of those officials could invite

more corruption. Rather, this paper emphasizes the importance of improving the quality of information available to relevant authorities.³⁷

Figure 2. Shadow economy and Corruption Perceptions Index, 2013



Source: Transparency International, *Corruption Perceptions Index (2013)*; Hassan and Schneider (2016).

Notes: (1) The Corruption Perceptions Index aggregates data from a number of different sources that provide perceptions of business people and country experts of the level of corruption in the public sector. The CPI 2013 is calculated using 12 different data sources from 11 different institutions that capture perceptions of corruption within the past two years. It standardises data sources to a scale of 0-100 where a 0 equals the highest level of perceived corruption and 100 equals the lowest level of perceived corruption (Corruption Perceptions Index 2013).

There are a number of policy options that give firms more of an incentive to operate in the formal economy (Gordon and Jun 2013). Noting cash transactions are a major means of hiding activity, one immediate option to reduce evasion is to encourage use of credit cards or checks for transactions. Unlike use of cash, payments through a credit card leave a paper trail, facilitating the monitoring and taxing of an activity. As described in Section 2, tax subsidies for use of credit cards, along with similar subsidies for cash-receipts, has dramatically increased the government's ability to monitor transactions.³⁸ Another policy is to encourage more firms to be listed on the stock exchanges, by means of subsidies for example. Publicly listed firms are required to make credible accounting statements and the extra information conveyed by these statements aids tax enforcement. One related policy is to link the accounting figures used in the profits (and sales) reported to shareholders and the profits (and sales) reported to the tax authorities, which undercuts the incentives for publicly traded firms

³⁷ Sharing information among related government agencies is also helpful for this.

³⁸ The Korean government has made use of this method since several neighboring countries in Asia, including Thailand and Indonesia, have introduced similar subsidy policies in the past decade.

to underreport their taxable income.³⁹ As a means to reduce the advantage of operating in the informal sector, use of the courts to handle business disputes among firms operating in the informal sector could be restricted. As another example, linking the social benefits such as social insurance and unemployment insurance more closely to the reported income under the personal income tax would attract more firms into the formal sector. In addition, the widely used presumptive value-added tax for small firms among developing countries can be improved by using a better measure of taxable activity than gross sales for monitoring purposes.⁴⁰ To restore the self-enforcing power of a VAT, a presumptive surtax can be imposed on goods sold by firms in the formal sector to firms in the informal sector, so that downstream firms lose any tax advantage from being in the informal sector.

One related policy concern is entrepreneurial activity that takes place in the informal sector.

Much of entrepreneurial activity likely occurs in start-up firms, and they are likely to be sensitive to the tax treatment of profits vs. losses. Noting that many start-ups in developing countries likely begin by operating in the informal sector, lack of adequate loss-offsetting provisions in the formal sector will give a weak incentive for them to leave the informal sector. Thus, an appropriate treatment of business losses not only encourage entrepreneurial activity but also pull start-up firms more quickly into the formal sector. To the extent that small start-ups can potentially qualify for tax refunds when they have negative value-added or negative profits, entrepreneurial activity in the formal sector would be encouraged.

Table 8. PIT vs. CIT Rate Differentials in Selected Asia-Pacific Countries

	2006			2015		
	(1) PIT rate	(2) CIT rate	(1)-(2)	(1) PIT rate	(2) CIT rate	(1)-(2)
	%		%p	%		%p
Taiwan	40.0	25.0	15.0	45.0	17.0	28.0
Japan	50.0	39.5	10.5	55.9	32.1	23.8
China	45.0	33.0	12.0	45.0	25.0	20.0
Australia	48.5	30.0	18.5	49.0	30.0	19.0
Republic of Korea	38.5	27.5	11.0	41.8	24.2	17.6
Thailand	37.0	30.0	7.0	35.0	20.0	15.0
Vietnam	40.0	28.0	12.0	35.0	22.0	13.0
Papua New Guinea	45.0	30.0	15.0	42.0	30.0	12.0
New Zealand	39.0	33.0	6.0	33.0	28.0	5.0
Singapore	20.0	20.0	0.0	20.0	17.0	3.0
Bangladesh	25.0	30.0	-5.0	30.0	27.5	2.5
Philippines	32.0	35.0	-3.0	32.0	30.0	2.0
India	30.0	33.7	-3.7	34.6	34.6	0.0
Malaysia	28.0	28.0	0.0	25.0	25.0	0.0
Fiji	31.0	31.0	0.0	20.0	20.0	0.0
Hong Kong, China	16.0	17.5	-1.5	15.0	16.5	-1.5

³⁹ Firms have an incentive to underreport their profits and sales to the tax authorities while they have a counterbalancing incentive to over-report the size of their profits and sales to shareholders. See Kanninen and Södersten (1995) for an experiment in Sweden.

⁴⁰ Although the preferential tax treatment of small firms may be necessary in order to induce more firms to remain in the formal sector, this policy can incur costs such as splitting firms or underreporting gross sales. One alternative is to base the tax on the book value of the firm's capital.

Sri Lanka	-	32.5	-	24.0	28.0	-4.0
17 AP average	35.3	29.6	5.9	34.3	25.1	9.1
OECD average	42.3	27.3	14.6	43.6	24.9	18.4

Source: KPMG; OECD Tax database.

Note: (1) Top statutory personal income tax rates including any surtax and combined corporate income tax rates (central government and sub-central government, plus surtax) are reported, when data is available.

Section 2 described misallocations that occur when the effective corporate tax rate differs from the personal tax rates faced by the firm's owners and managers. As seen in table 8, the corporate tax rate is unusually low relative to the top personal tax rates in a number of Asia-Pacific countries, suggesting a potential efficiency gain from reducing this tax differential. Moreover, this differential has increased over the past decade in almost all sample countries. This probably reflects the decreasing trend in the corporate tax rate worldwide consistent with the 'low-rate and broad-base' suggestion of the optimal tax literature, further reinforced by tax competition pressures in an increasingly globalizing investment environment. This poses a tough question for many governments with respect to maintaining an appropriate balance among keeping firms in the formal sector, reducing the evasion opportunity by closing the rate gap and following the worldwide trend of lowering corporate rates.⁴¹

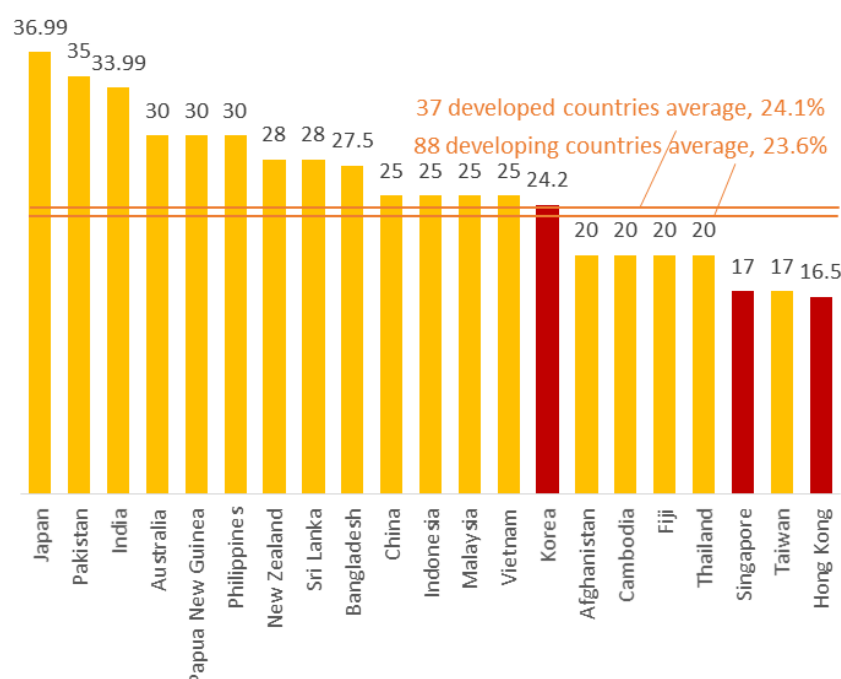
The case study presented in Section 4 confirms the importance of nontax factors that comprise the overall investment climate in determining the efficacy of tax incentives. In Hong Kong, China market-friendly investment environments, including a simple tax system with low and uniform rates, were a dominating factor to attract foreign investors. In Singapore, the combination of aggressive investment incentives and favorable investment climates has turned out to be part of its successful growth strategy. In contrast, the Korean experience shows a case in which countries with relatively weak investment climates can still make good use of tax incentives. Republic of Korea is the case where capital and technology have been accumulated mostly by domestic companies that can pay more in taxes than their foreign competitors. The potential role of tax incentives has sometimes been stretched beyond their purported goals, effectively serving as an incentive for firms not to shift their operations into the informal sector or abroad. As such, tax incentives with mostly inframarginal effects on investment, if properly combined with nontax incentives, could possibly have a "marginal" effect on keeping firms from succumbing to evasion temptations.

Unlike the Korean case, capital and technology can be imported thorough foreign direct investment, as advocated by development experts. The literature, though, suggests that investment incentives might not be effective in attracting foreign investment unless they are accompanied by favorable supporting conditions, noting that tax is one of the many factors in determining the investment location of multinationals. However, policies that could improve the investment climate such as those related to labor force and infrastructure may take time and budgetary expense, prompting governments to rely on tax breaks that are readily available and can be designed as target-based. Moreover, tax incentives might even compensate for deficiencies in investment climate to the contrary of popular belief among fiscal experts. As described in Section 3, the presence of a location-specific rent could be a

⁴¹ There are several possible ways to reduce the differential in statutory personal and corporate tax rates by introducing expensing for new investment while keeping the statutory corporate rate or cutting wage subsidies while lowering personal tax rates, for example.

major incentive for multinationals to choose a particular location. For a country with prospective location-specific rents such as natural resources or privileges bestowed by the host government, investment incentives might have a marginal effect on the behavior of foreign investors. Multinationals with a firm-specific advantage may prefer a location that could provide cost saving opportunities like low wages or tax holidays. Even for countries with weak investment climates and low rent potentials, tax incentives can still be cost effective because they have a long run signaling effect without much of foregone revenue. Rather, countries with strong investment climates should worry about the redundancy of incentives and related social costs such as corruption and rent-seeking.

Figure 5.2 Statutory Corporate Tax Rates in Selected Asia-Pacific countries, 2013 (%)



Source: KPMG; OECD Tax database.

Notes: (1) Countries are classified according to IMF (2016) classification; (2) Combined corporate income tax rates (central government and sub-central government, plus surtax) are reported, when data is available.

Another dimension in which tax competition might take place is the relative statutory corporate tax rates among countries. First, the statutory tax rate, combined with investment incentives, determines the effective tax rate on investment. Reducing both tax rates and tax preferences has been the dominating international trend since the mid-1980s, intended for efficiency gains. Another policy concern is related to multinationals' decision to locate their profits among jurisdictions where they have subsidiaries. Such profit shifting is largely determined by the differences in the statutory tax rates. As seen in Figure 5.2, the average statutory corporate tax rate is very similar between developed and developing countries. Nonetheless, there are significant disparities across individual countries, from 36.99% in Japan to 16.5% in Hong Kong, China. With increased capital mobility across borders, countries may find it safe to stay in conformity with the neighboring countries with similar

economic attributes.⁴² If the shifting of profits by multinationals acts as a constraint on the level of the statutory rates, governments may have to broaden the base by reducing tax incentives to meet a revenue requirement. In this regard, existing investment incentives for foreign investment need to be re-adjusted in a most cost-effective way, taking into account country-specific characteristics such as the source of rent and the size of the informal sector as well as policy environments such as administrative capacity and the efficacy of the overall tax system.

Another issue to discuss in conjunction with tax competition is the desirability and feasibility of tax coordination among countries. If increased capital mobility leads to a ‘race to the bottom’ competition in the tax rates though this paper doubts this possibility, tax coordination can result in welfare gains from a global point of view.⁴³ As noted in Section 3, government can effectively collect taxes on location-specific rents and even export some part of them to foreigners. Noting that increased capital mobility implies a higher foreign ownership of the domestic capital stock, government would not easily give up on corporate taxes for political as well as economic reasons. Since a tax system reflects a variety of country-specific attributes and political preferences, coordination in tax policy appears to be much more difficult than in trade policy. Probably, information sharing is the most practical possibility, given the increased shifting of profits by multinationals. Even such exchange of information is likely to take place only if the host country has an economic incentive (Keen and Ligthart 2004).⁴⁴

Overall, the discussion in this paper suggests that the design and evaluation of tax incentives should be conducted taking into account country-specific conditions and priorities. An incentive policy that might be desirable for one country could be ineffective for another. In this regard, some of the best practice recommendations from the existing literature should be considered with caution. Investment incentives can be effective even in countries with weak investment climates or wasted in countries with stronger climates. In fact, the prevalent practice of tax incentives among developing countries might not be a waste or abuse as criticized by many fiscal experts but a rather rational response of their governments to various pressures stemming from enforcement difficulties or weak investment climates.

⁴² Conformity of statutory rates can also take place as a result of ‘yardstick’ competition with governments mimicking each other’s tax rates.

⁴³ In contrast to the case of individual countries, the global tax base is presumably inelastic, affected mostly by savings elasticities.

⁴⁴ On this subject, the on-going OECD project on BEPS will provide a practical guidance for policymakers. The BEPS implications for developing countries are not clear, however. On average, the BEPS project will likely increase tax liability for multinationals. While it is unclear that this may lead to improving the effectiveness of investment incentives among developing countries (Zolt 2015), tax evasion schemes can become more sophisticated, so that developing countries may find it harder to catch them.

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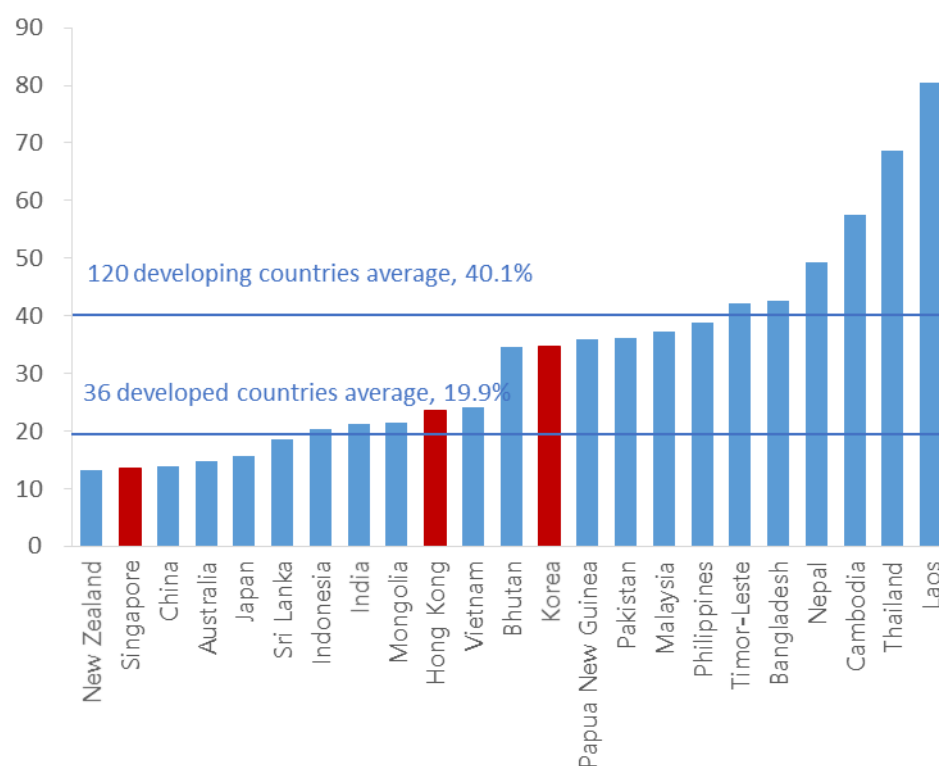
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Appendix

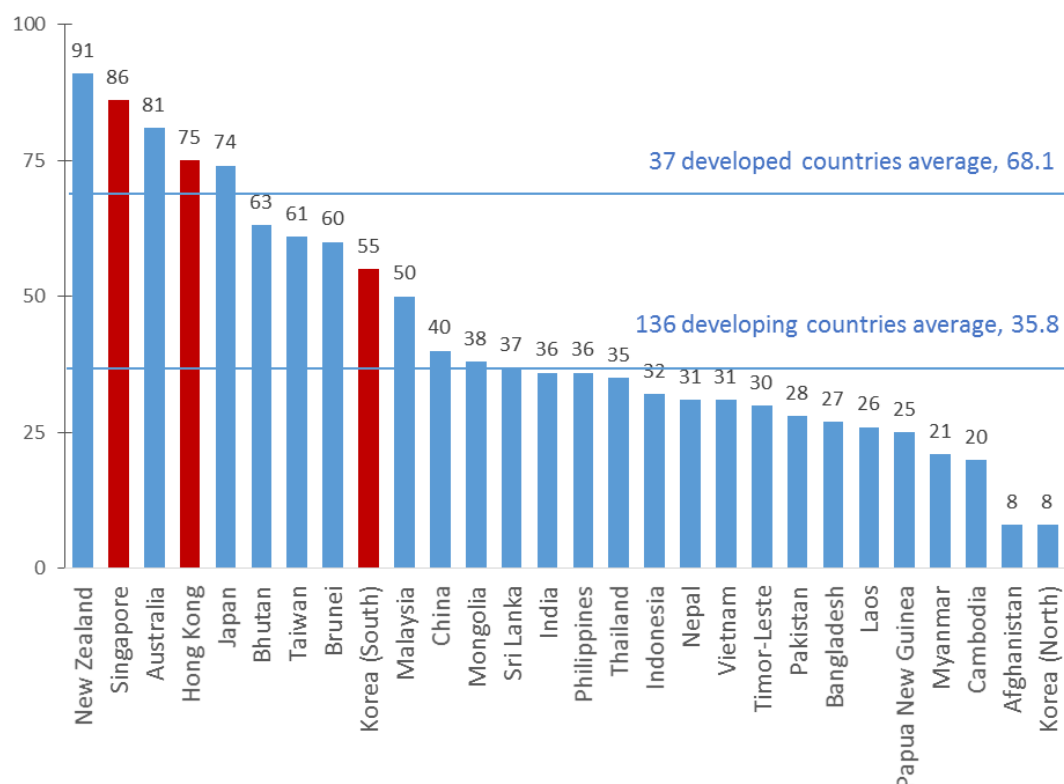
Appendix 1. The informal sector in developing and developed countries, 2013(% of GDP)



Source: Hassan and Schneider (2016).

Note: (1) Countries are classified according to IMF (2016) classification.

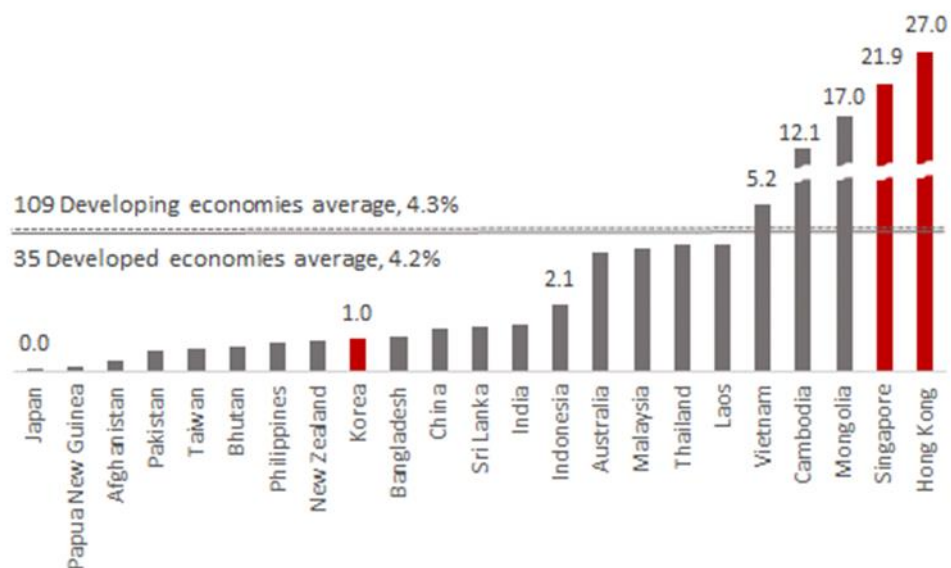
Appendix 2. Corruption Perceptions Index in selected Asia-Pacific countries, 2013 (score, out of 100)



Source: Transparency International, *Corruption Perceptions Index* (2013).

Notes: (1) The CPI relates to the degree to which corruption is perceived to exist among public officials and politicians by business people and country analysts. Score ranges between 100 (highly clean) and 0 (highly corrupt). (2) Countries are classified according to IMF (2016) classification.

Appendix 3. FDI Inward Flows in Selected Asia-Pacific Countries, 2013 (% of GDP)



Source: UNCTAD database.

Appendix 4. Tax Structure in Hong Kong, China; Singapore, and Republic of Korea, 2013

	Hong Kong	Singapore	Korea	Hong Kong	Singapore	Korea
	% GDP			% Total Tax Revenue		
Total tax revenue	13.4	13.6	25.0	100.0	100.0	100.0
Taxes on income, profits, and capital gains	8.5	5.8	14.1	63.6	43.0	56.4
Payable by individuals	2.8	2.0	4.3	21.1	15.1	17.1
Payable by corporations and enterprises	5.7	3.8	3.1	42.5	28.0	12.4
Social contributions	0.0	0.0	6.7	0.0	0.0	26.9
Taxes on payroll and workforce	0.0	0.0	0.0	0.0	0.0	0.0
Taxes on property	0.8	1.1	1.6	6.3	8.2	6.4
Taxes on goods and services	3.9	4.2	7.5	29.0	30.8	30.2
VAT/GST ²	0.0	2.5	4.4	0.0	18.6	17.7
Excise	0.5	0.6	1.7	3.4	4.3	7.0
Taxes on financial and capital transactions	1.9	0.0	1.1	14.5	0.0	4.6
Taxes on international trade & transactions	0.0	0.0	0.8	0.3	0.0	3.0
Customs and other import duties	0.0	0.0	0.8	0.3	0.0	3.0
Taxes on exports	0.0	0.0	0.0	0.0	0.0	0.0
Other taxes	0.1	2.4	1.0	0.8	18.0	3.8

Source: IMF, *Government Finance Statistics*.

Note: (1) Hong Kong: accrual basis, Singapore: cash basis, Korea: accrual basis; (2) Singapore: GST, Korea: VAT.

Appendix 5. Types of Investment Incentives in Hong Kong, China

Classification	Type of Incentive	Example of Incentive Programme
(1) Activity		
Investment	• Investment allowance	Immediate writing off allowed for capital expenditure on plant and machinery specifically related to manufacturing, and on computer hardware and software
FDI	• Stamp duty relief	There is an exemption from stamp duty (provided certain conditions are fulfilled), for a conveyance of an interest in immovable property or a transfer of Hong Kong stock, between companies with at least a 90% common shareholding. This exemption must be obtained by application to the Stamp Office supported by relevant documentary evidence.
R&D	• Tax deduction	100% Deduction for expenditure incurred on patent rights or rights to any know-how. With effect from the year of assessment 2011/12, 20% deduction on expenditure incurred on copyrights, registered designs or registered trademarks is allowed for five consecutive years starting from the year of purchase
	• Cash rebate	Research and Development Cash Rebate Scheme: The Government introduced a Research and Development Cash Rebate Scheme in April 2010 to reinforce the research culture among business enterprises and encourage R&D investments and projects. Under the Scheme, enterprises conducting applied R&D projects either with the support of the ITF or in partnership with designated local research institutions will enjoy a cash rebate on their investments. The level of cash rebate has been increased by three-fold from 10% to 30% with effect from 1 February 2012. Further measures, including procedures on pre-registration of partnership projects, have also been introduced from 1 April 2013 to improve the operation of the Scheme.
	• Grants	Enterprise Support Scheme(ESS): The ESS will provide funding support for R&D activities of private sector companies, irrespective of size, with the funding ceiling for each project raised from \$6 million to \$10 million
(2) Sector		
Manufacturing /Service	• Investment allowance	Immediate writing off allowed for capital expenditure on plant and machinery specifically related to manufacturing, and on computer hardware and software
Financial service	• Tax exemption	Offshore Fund Exemption: Exemption from tax for offshore funds (non-resident individuals, partnerships, trustees of trust estates or corporations) in respect of profits derived from transactions in securities, futures contracts, foreign exchange contracts, etc. in Hong Kong, which are carried out by corporations and authorised financial institutions licensed or registered under the Securities and Futures Ordinance (Cap. 571).The non-resident entity must not carry on any other business in Hong Kong.
	• Reduced profit tax rate	Concessionary tax rate for qualifying corporate treasury centre(CTC): Qualifying profits derived by a qualifying CTC are subject to profits tax at a concessionary tax rate (i.e. 50% of the regular profits tax rate) under specified conditions.
	• Stamp duty concession	Since 2010, the Government has extended the stamp duty concession to cover exchange traded funds (“ETFs”) that track indices comprising not more than 40 per cent of Hong Kong stocks.
(3) Firm size		
SMEs /Start-up	• Grants	Enterprise Support Programme: The Fund aims to provide funding support to assist Hong Kong enterprises in exploring and developing the Mainland market through developing brands, upgrading and restructuring operations, and promoting domestic sales in the Mainland. The programme provides funding support for individual enterprises.

Source: Legislative Council of Hong Kong; Deloitte; PricewaterhouseCoopers.

Appendix 6. Types of Investment Incentives in Singapore

Classification	Type of Incentive	Example of Incentive Programme
(1) Activity		
Investment	• Investment allowance	Integrated Investment Allowance (IIA): Allowance (on top of normal capital allowance) on a percentage of approved fixed capital expenditure to be incurred on productive equipment that is placed outside Singapore for an approved project
	• Reduced withholding rate tax	Approved Foreign Loan Incentive (AFL): Reduced withholding tax of 0%, 5% or 10% on interest payments on loans taken to purchase productive equipment.
FDI	• Tax holiday	Pioneer Incentive Scheme: Companies from the manufacturing or services sector that engage in activities that raise overall industry standards may be eligible for full corporate tax exemption on qualifying profits for up to 15 years.
	• Tax deduction	Double Tax Deduction (DTD) for Internationalisation Scheme: Up to 200% tax deduction on qualifying expenditure incurred on a range of qualifying market expansion and investment development activities which include qualifying salary expenses incurred for employees posted overseas in an overseas entity.
	• Stamp duty relief	Mergers & Acquisitions (M&A) Scheme: The acquiring company is granted an M&A allowance of 25% (capped at S\$10 million) of the qualifying acquisition value capped at S\$40 million per Year of Assessment (YA), and stamp duty relief on the transfer of ordinary shares (capped at S\$80,000).
	• Reduced corporate tax rate	Regional Headquarters (RHQ) Award: Under the (RHQ) Award, qualifying companies can enjoy a concessionary tax rate of 15% for five (3+2) years on incremental qualifying income from abroad, instead of the regular Singapore corporate tax rate of 17%. In other words, if applicant company satisfies all the minimum requirements by the third year of the incentive period, it will enjoy the 15% concessionary tax rate for an additional 2 years on qualifying income. This scheme applies to all companies that have their Asia-Pacific headquarters in Singapore.
	• Grants	Market Readiness Assistance (MRA) grant: Up to 70% funding support of eligible cost for pre-determined activities such as overseas market set-up, business matching and market promotion, capped at S\$20,000 per company per fiscal year.
R&D	• Tax deduction	Productivity and Innovation Credit (PIC) and PIC+ schemes: Allowance of 400% on up to S\$400,000 of qualifying expenditure incurred per year in each of 6 activities (R&D, training of employees, design projects, etc.) Liberalised R&D Tax Deduction: All Singapore-registered businesses, including sole proprietors, partnerships and companies. Tax deductions for R&D expenses
	• Investment allowance	Writing-down allowances for IP acquisition (S19B): Automatic 5/10/15-year write-down if legal and economic ownership of IP are acquired. EDB's approval is required if only economic ownership of IP rights is acquired.
	• Reduced withholding rate tax	Approved royalties incentive (ARI): Reduced or nil withholding tax rate on royalty payments to access advanced technology and know-how.
	• Grants	Research Incentive Scheme for Companies (RISC): Co-funding to support the development of strategic technologies, capabilities and the establishment of centres of competence in Singapore.
(2) Sector		

	• Tax holiday	Pioneer Incentive Scheme: Companies from the manufacturing or services sector that engage in activities that raise overall industry standards may be eligible for full corporate tax exemption on qualifying profits for up to 15 years.
Manufacturing /Service	• Investment allowance	Allowance (on top of normal capital allowance) on a percentage of approved fixed capital expenditure.
	• Reduced tax rate (corporate, withholding)	Development & Expansion Incentive (DEI): Reduced tax rate from 5% to 15% on incremental income from qualifying activities. Approved Foreign Loan Incentive (AFL): Reduced withholding tax of 0%, 5% or 10% on interest payments on loans taken to purchase productive equipment.
	• Grants	SPRING's Capability Development Grant (CDG): Up to S\$1 million grant support for the roll-out or scaling-up of automation projects at up to 50% of the qualifying cost.
Trading	• Reduced tax rate	Global Trader Programme(GTP): Reduced tax rates of 5% or 10% on qualifying transactions/trades in qualifying commodities, futures and derivatives (including structured commodity financing).
	• Zero GST	Zero GST Warehouse Scheme: Businesses which are GST-registered with IRAS, registered with Singapore Customs, do not have any major noncompliance records with Singapore Customs and IRAS.
Financial service	• Tax exemption	Offshore insurance incentives: Approved insurance companies engaged in the business of insuring and reinsuring offshore risks are taxed at a rate of 10% on qualifying income arising from offshore risks business. The tax exemption for approved insurance companies for qualifying income from the writing of marine hull and liability risk insurance expired on 31 March 2016 and was replaced with a 10% concessionary tax rate for awards granted or renewed from 1 April 2016. The tax exemption for offshore specialised risk insurance is due to expire on 31 August 2016. It will be replaced by a 5% concessionary tax rate for awards granted between 1 September 2016 and 31 August 2019; and an 8% tax rate will apply for awards granted thereafter. The incentive will also be expanded to cover onshore specialised risk insurance from 1 September 2016. Tax exemption is available for qualifying income of approved offshore captive insurance companies until 31 March 2018. Awards granted or renewed after that date will enjoy a 10% concessionary tax rate. Approved insurance and reinsurance brokers are taxed at a rate of 10% on commission income from broking activities if the risks being insured or reinsured are offshore risks and on fee income from advisory services provided to non-Singapore based clients. The concessionary tax rate is further reduced to 5% on qualifying income for approved insurance and reinsurance brokers in respect of the offshore specialty insurance broking business.
	• Reduced tax rate	Finance & Treasury Centre (FTC): Reduced tax rate of 8% on fees, interest, dividends and gains from qualifying services/activities. Withholding tax exemption on interest payments on loans from banks and approved network companies for FTC activities.
	• Stamp duty concession	Infrastructure project finance incentives: Tax exemption is available for interest income earned from qualifying investments in qualifying infrastructure projects/assets. FSI companies that provide project finance advisory services related to qualifying projects/assets pay tax at 5% or 12% on their qualifying income, and companies that provide management services to qualifying business trusts and funds pay tax at 10% on their qualifying income. Stamp duty remission is also available on the transfer of such projects/assets to listed entities.
Maritime, shipping & logistics	• Tax Exemption	Maritime Sector Incentive (MSI) – Singapore Registry of Ships (MSI-SRS) and Approved International Shipping (MSI-AIS): Tax exemption on qualifying shipping income from operating Singapore and foreign-flagged ships, provision of specified ship management services, and income from foreign exchange and risk management activities which are carried out in connection with or incidental to the operations of ships for 5 or 10 years.
	• Reduced tax rate	MSI - Shipping Related Support Services (MSI-SSS) Award: Concessionary tax rate of 10% for 5 years on incremental income

		derived from the provision of qualifying approved shipping-related support services, such as ship broking, forward freight agreement (FFA) trading, ship management, ship agency, freight forwarding and logistics services; and corporate services rendered to qualifying approved related parties carrying on the business of shipping-related activities.
	• Grants	Maritime Innovation & Technology (MINT) Fund: Co-funding to support R&D or test-bedding of new or better products, processes and applications relevant to the maritime industry in Singapore. Up to 50% of total project costs consisting of manpower, equipment, material, professional services, IP and other ancillary costs.
(3) Firm size		
SMEs /Start-up	• Tax exemption	Tax Exemption for New Start-Up Companies: Under the scheme, qualifying new companies are given full exemption on the first \$100,000 normal chargeable income and a further 50% exemption on the next \$200,000 of normal chargeable income for the first three consecutive YAs. The maximum exemption is therefore \$200,000(100% x \$100,000 + 50% x \$200,000).
	• Tax deduction	Angel Investors Tax Deduction Scheme (AITD): A tax incentive for business angels to invest in local startups, Approved angel investor can enjoy a tax deduction of 50% of his investment amount (minimum S\$100,000) at the end of a 2 year investment holding period.
	• Grants	Incubator Development Programme (IDP): Co-funds incubators and venture accelerators to mentor and develop local startups. IDP provides up to 70% grant support for: • Costs of introducing programmes that help startups develop new products/ services, obtain business financing, improve market access, etc. • Hiring mentors to provide management guidance to startups • Costs incurred to market services/events, hire incubator managers, train staff, provide shared services/ equipment for startups, etc.

Source: Deloitte; PricewaterhouseCoopers; Steven Tan Russell Bedford PAC; Economic Development Board; Hawksford.

Appendix 7. Types of Investment Incentives in Republic of Korea

Classification	Type of Incentive	Example of Incentive Programme
(1) Activity		
Investment	• Tax credit	Tax Credit for Investment in Facilities (excluding used and leased assets) for Productivity Enhancement: Where a resident or a domestic corporation invests in specific facilities, 3% (7% in the case of SMEs) of the investment amount shall be deducted from income tax and corporation tax. (The Restriction of Special Taxation Act, §11)
		Tax Credit for Investment in Facilities for Safety: In the case where a national makes an investment in the specific facilities (excluding used and leased assets), an amount equivalent to 3/100 of such investment amount shall be deducted from its income tax or corporate tax. However, in case of an SME that has facilities installed to prevent technology from being illegally transferred such as information protection facilities prescribed by Ministry of Strategy and Finance ordinance, an amount equal to 7/100 of such investment amount shall be deducted. (The Restriction of Special Taxation Act, §25)
		Tax Credit for Investment in Energy Saving Facilities: Where a resident or a domestic corporation invests in energy saving facilities, 10% of the investment amount shall be deducted from income tax and corporation tax. (The Restriction of Special Taxation Act, §25-2)
		Tax Credit for Investments in Environmentally Friendly Facilities and Safety Facilities: Where a resident or a domestic corporation invests in specific facilities, 3%(5% in the case of High Potential Enterprises and 10% in the case of SMEs) of the investment amount shall be deducted from income tax and corporation tax. (The Restriction of Special Taxation Act, §25-3)
		Tax Credit for Investment in Facilities for Improved Quality Management of Medicines: Where a national invests (excluding any investment in used goods and leased assets) in any facility for improved quality management of medicines prescribed by the Presidential Decree, the amount equivalent to 3%(5% for High Potential Enterprises and 7% for SMEs) of the investment amount shall be deducted from the income tax or the corporate tax. (The Restriction of Special Taxation Act, §25-4)
	• Tax deduction	(The Restriction of Special Taxation Act, §28, §28-2)
	• Tax reduction & exemption	Tax Reduction and Exemption for Companies Closing Overseas Business Places and Returning to Korea: In the case where a national closes down a business place overseas which had been operated for two years or more to relocate or establish a new business place in Korea (excluding metropolitan area), the national is entitled to a tax deduction as follows. Where the national closes down the entire business place overseas, an amount equivalent to 100/100 of income or corporate tax on income deriving from a new business place after relocation will be deducted for five consecutive taxable years starting from the taxable year to which the relocation date belongs; for the next two taxable years, an amount equivalent to 50/100 will be deducted. On the other hand, where the national closes down a part of the business place overseas, the same rates are applied, but the rate of 100/100 is applied for three consecutive taxable years starting from the taxable year to which the relocation date belongs; for the next two taxable years, the rate of 50/100 will be applied. (The Restriction of Special Taxation Act, §104-24)
FDI	• Tax holiday • Tax exemption • Free Trade Zone	Foreign businesses and investors who make advanced technology FDI in Korea are eligible for exemption from individual and corporate income taxes for the first 5 years, and a 50% reduction for each of the next 2 years. In addition, foreign businesses and investors are granted exemption from a number of local taxes such as Acquisition Tax, Property Tax, Aggregate Land Tax, and Registration Tax for a minimum of 5 years, and 50% reduction in the next 2 years. Imported capital goods are eligible for full or partial

	• Grants	exemption from customs duty, individual consumption tax, and value added tax (VAT). (The Restriction of Special Taxation Act, §14-2)
R&D	• Tax exemption	Tax Exemption for Income from Technology Acquisition: SMEs purchasing patent rights or utility model rights are eligible for tax credit of up to 7% of the total price. (The Restriction of Special Taxation Act, §12)
	• Non-taxation	Non-taxation on Capital Gains of Venture Capitals: Venture capital companies investing in newly organized SMEs are eligible when they sell off stocks or equity of those SMEs. Corporation tax is exempt for capital gains from such transactions. (The Restriction of Special Taxation Act, §13)
	• Tax credit	Tax Credit for research and human resources development (The Restriction of Special Taxation Act, §10) Tax Credit for R&D of Growth Industry and Basic Technology: 20% (30% in the case of SMEs) of R&D expenses of growth industry and basic technology incurred for that taxable year (The Restriction of Special Taxation Act, §10) Tax Credit for Investment in Facilities for Technology and Human Resources Development: The companies purchasing facilities prescribed in the Presidential Decree with the purpose of R&D and job training are eligible for tax credit up to 3%(5% for High Potential Enterprises, 10% for SMEs) of the total prices. (The Restriction of Special Taxation Act, §11)
	• Tax deduction	Income Tax Deduction for Individual Investors: Not more than 40% of the aggregate income shall be deducted from the aggregate income for any one of three years after investment including the year during which the investment is made. (The Restriction of Special Taxation Act, §16)
(2) Sector		
Manufacturing /Service	• Tax credit	Tax Credit for research and human resources development (The Restriction of Special Taxation Act, §10) Tax Credit for R&D of Growth Industry and Basic Technology (The Restriction of Special Taxation Act, §10) Tax Credit for Investment in Facilities for Technology and Human Resources Development (The Restriction of Special Taxation Act, §11)
		Tax Credit for Investment in Facilities (excluding used and leased assets) for Productivity Enhancement (The Restriction of Special Taxation Act, §11)
		Tax Credit for Investment in Facilities for Safety (The Restriction of Special Taxation Act, §25)
		Tax Credit for Investment in Energy Saving Facilities. (The Restriction of Special Taxation Act, §25-2)
		(The Restriction of Special Taxation Act, §28, §28-2)
	• Tax deduction	Special Tax Incentive for SMEs: Small and medium-sized enterprises (SMEs) in metropolitan area are eligible for 10% or 20% deduction in corporation tax or income tax. SME in non-metropolitan area are eligible for 5%~30% deductions in corporation tax or income tax respectively.(The Restriction of Special Taxation Act, §7)
Trading	• Zero-rate	The following goods and services are zero-rated and the input tax incurred is refundable. Zero-rating is applicable only to traders who are residents or domestic corporations. However, in the case of international transportation service by ships or aircraft, traders who are non-residents or foreign corporations are subject to zero-rating on a reciprocity basis. (1) Goods for exportation; (2) Services rendered outside Korea; (3) International transportation service by ships and aircraft; (4) Other goods or services obtaining foreign currencies
(3) Firm size		
SMEs /Start-up	• Tax credit	Tax Credit for Investment: If SMEs acquire business assets (excluding used and leased assets) such as machinery and equipment or installation of information management system at the point of sales and information protection system, 3% of the acquisition amount is

		deducted from income tax or corporation tax. (The Restriction of Special Taxation Act, §5)
	• Tax deduction	Special Tax Incentive for SMEs: Small and medium-sized enterprises (SMEs) in metropolitan area are eligible for 10% or 20% deduction in corporation tax or income tax. SME in non-metropolitan area are eligible for 5%~30% deductions in corporation tax or income tax respectively.(The Restriction of Special Taxation Act, §7) (The Restriction of Special Taxation Act, §28, §28-2)
	• Tax reduction	Reduction of income tax or corporation tax: When new SMEs are established in areas other than the Seoul metropolitan area or its adjacent areas in order to operate businesses such as mining, manufacturing, construction, restaurant, publishing, video and audio documentary production and distribution (excluding video watching room operation business), broadcasting, telecommunications, computer programming, system integration and management, information service (excluding business providing news), research and development, advertising, other scientific technology service, service business related to creation and art (excluding self-supporting artists), engineering, distribution, business running private institutes teaching vocational technique, tourist accommodation, international conference, amusement facilities, and tourist facilities, business running welfare facilities for the aged, exhibition, manpower supply and employment, building and industrial facilities cleaning, security and escort service, market research and opinion survey, social welfare service, general urban gas or when new venture enterprises certified by authorities concerned are established, the income tax or the corporation tax for such businesses is reduced by 50% for the first five years including the year during which such income accrues for the first time. (The Restriction of Special Taxation Act, §6)

Source: Ministry of Strategy and Finance, Korea; PricewaterhouseCoopers.

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