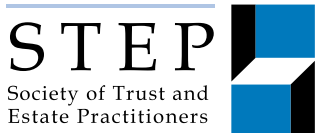


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INTERNATIONAL FINANCIAL CENTERS AND THE WORLD ECONOMY

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The Society of Trust and Estate Practitioners (STEP) is a unique professional body providing members with a local, national and international learning and business network focusing on the responsible stewardship of assets today and across generations.

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Executive Summary

Offshore Financial Centers play a key role in the international financial system, improving the availability of credit and encouraging competition in domestic banking systems. The result is a boost in investment in the major economies, which ultimately supports job creation and growth.

International financial centers (IFCs) are countries and territories with low tax rates and other features that make them attractive investment locations. These properties of IFCs occasionally raise concerns that they may erode tax collections, divert economic activity, and otherwise burden nearby high-tax countries. A large body of economic research over the last 15 years considers these issues, with findings that point sharply in the opposite direction: the evidence strongly suggests that the policies of IFCs contribute to investment, employment, and the efficient functioning of markets and government policies in other countries.

IFCs contribute to economic activity by improving the potential profitability of business operations elsewhere. As a result, for a typical American firm, a 1 percent greater likelihood of establishing an IFC affiliate is associated with a 0.5-0.7 percent

greater sales and investment growth in the same region in countries other than IFCs. Furthermore, foreign investment stimulated by IFCs also appears to encourage greater domestic investment: the American evidence is that 10 percent greater foreign capital investment triggers 2.6 percent additional domestic capital investment, and that 10 percent greater foreign

Offshore Financial Centers play a key role in the international financial system

employment is associated with 3.7 percent greater domestic employment. Evidence of the behavior of European, Canadian, Australian and other firms offers similar conclusions: expanded foreign economic opportunities are associated with greater domestic investment and employment.

Other evidence indicates that the financial services offered in IFCs contribute to the competitiveness of financial markets in the regions in which they are located. Commercial

banks in countries with nearby IFCs have lower interest rate spreads than do other countries, and their banking sectors are less concentrated, as reflected in lower market shares for the five largest banks. By every measure credit is more freely available in countries proximate to IFCs, reflecting the degree of banking competition and the resulting stability of their financial architectures.

IFC economies have grown very rapidly in the period since 1980, with average per capita annual growth rates of 3.3 percent, compared to 1.4 percent for the world as a whole. This fast pace of economic growth reflects the benefits of attracting high levels of foreign investment and indirectly contributes to economic prosperity elsewhere through the usual process by which affluence spreads across countries. Among the notable features of IFCs are not only their high average incomes and small populations (many are islands), but also, according to new research findings, their very high scores on governance quality measures. Recent evidence implies that improving the quality of governance from the level of Brazil to that of Portugal raises the likelihood of a small country being an IFC from 26 percent to roughly 61 percent. This association of IFCs with governance quality carries implications for their own and other countries through the widely-observed process by which governance influences economic outcomes, and in particular, by which bad governance retards economic performance.

Economic outcomes aside, are the tax policies of other countries somehow undermined by those of IFCs? IFCs are typical of small countries in imposing low income tax rates and instead relying on expenditure-type taxes. Contrary to popular impression, IFCs are not the locations of choice for anonymous accounts and other vehicles for international tax evasion, recent evidence instead indicating that large countries such as the United States and the United Kingdom instead serve this function. Modern tax competition theories indicate that the low tax rates available in IFCs contribute to a form of tax competition that is likely to contribute to the efficiency of tax policies elsewhere, by distinguishing between highly mobile international investments that are very responsive to tax rate differences, and less mobile, more commonly domestic, investments that large countries are able to tax at high rates. By fostering this type of competition, and by not taxing income that is therefore available for others to tax, IFCs very likely enhance the ability of other countries to operate their tax systems efficiently.

Introduction

The modern world celebrates the diversity of human experience in almost all its manifestations – with the notable exception of national economic policies, where the absence of conformity among countries is often thought to be a source of concern.

One very important policy area in which countries differ sharply is taxation: cumulative personal, corporate and expenditure tax rates range from zero in some cases to well above 50 percent in others. Notably, these tax differences persist among countries that are geographically very close, implying that even proximity and the possible ease of travel and information flow between low tax and high tax jurisdictions do not prevent some governments from imposing much higher taxes than their neighbors. Tax policies reflect the choices that governments make in response to differing national circumstances, and are typically enacted independently, without explicit international cooperation. The absence of global economic policy coordination raises pointed questions of whether and to what extent countries might be harmed or helped by the tax and other policies of neighbors that differ greatly from their own.

Some of the most visible economic policy differences appear in the

treatment of foreign investment. International financial centers (hereinafter, IFCs) are countries and territories with tax and regulatory policies that are particularly favorable to foreign investment. IFCs typically tax inbound investment at low rates and encourage business formation with favorable telecommunications and transportation facilities, other business infrastructure, and limited bureaucratic hurdles to starting new businesses. In contrast, other nearby countries may subject investors to high rates of taxation and various burdensome legal and regulatory requirements. IFCs usually differ in several other significant respects from their high tax neighbors. IFCs generally have small populations: many are islands, and all but a few have populations below one million in 2004. IFCs have unusually high per capita incomes. And, as some very recent evidence indicates, IFCs have much higher quality of governance – as measured for example by effectiveness of democratic institutions and the absence of government corruption – than do most other countries.

Governments of high tax countries frequently express concerns over the impact of IFCs on their own economies. High on the list of such

International financial centers are countries and territories with tax and regulatory policies that are particularly favorable to foreign investment

concerns is that the policies of IFCs could erode the tax bases of high tax jurisdictions. This can happen in any of several ways, including that residents of high tax jurisdictions might earn capital income through accounts in IFC financial institutions that the residents fail to disclose to their home governments. Another possibility is that income actually earned in high tax jurisdictions could be reported for tax purposes to have been earned in an IFC. And IFCs may attract capital investment, employment, research and development, and other business activities that generate tax revenue that is arguably lost to other countries where these activities might otherwise have been located.

Contributing to tax base erosion is by no means the only charge leveled at IFCs by governments of high tax countries. The corporate and banking secrecy that some IFCs are alleged to foster could be used to facilitate criminal activities in other countries, including terrorist and drug-related activities that virtually all governments seek to combat. Short of criminal activities, confidential accounts in IFCs (and elsewhere) reduce the transparency of financial accounts that are often thought to contribute to the smooth operation of legal and financial systems around the world. Finally, differences between the policies of IFCs and those of other countries may contribute to the problem, if it is one, of excessive international tax competition.

These are worrisome complaints, though their striking common feature is that they are economic in nature and therefore in principle amenable

to careful empirical and theoretical analysis. A large and growing body of economic research over the past 15 years does just that, and the findings of this research point to conclusions very different from those on which the concerns about IFCs are based.

The new economic understanding is that IFCs contribute to the economic performance of the rest of the world, particularly the performance of high-tax countries such as G-7 nations. On close examination virtually all of the complaints about IFCs appear to have little economic merit, with the evidence instead pointing to the benefits that IFCs confer on other countries. Far from eroding the tax bases of high-tax countries, there is evidence that IFCs improve the operation of the tax systems of high-tax countries, thereby contributing to their ability to raise tax revenue. This happens both because the presence of IFCs allows other countries to maintain high taxes on domestic firms and because IFCs impose very low taxes on local business profits, thereby leaving extensive after-tax profits to be taxed by others. IFCs attract high levels of economic activity, but in the course of doing so promote, rather than depress, economic activity elsewhere. While historically IFCs have been associated with corporate and bank secrecy, the most recent evidence is that instead, large wealthy countries such as the United States and the United Kingdom are the locations of choice for those interested in establishing anonymous accounts. Furthermore, there is strong evidence that the presence of a nearby thriving IFC financial sector increases

IFCs contribute to the economic performance of the rest of the world, particularly the performance of hightax countries such as G-7 nations

the level of competition and the efficiency of a country's banking sector. And the latest tax competition theories imply that the ability of taxpayers to use IFCs to avoid certain kinds of taxes ultimately make tax systems more efficient by changing the nature of tax rate competition.

This research is in places complex and involved, and drawing the right conclusions from the available evidence can entail distinguishing between modeling assumptions, data sources and statistical methods that to the untrained eye may point in different directions. Wading through this material can be a dreary business, which makes it understandable that many interested observers instead proceed on the basis of informed intuition together with snippets of anecdotal evidence. Unfortunately, such a method carries with it the potential to draw exactly the wrong conclusions, in part because careful data interpretation and certain aspects of economic reasoning can be so counterintuitive at first exposure.

The purpose of this paper is to evaluate the impact of IFCs on other economies using insights and evidence from the latest economic research. As noted, such an evaluation invariably paints IFCs in a favorable hue, as the picture that emerges from this research is one in which other economies benefit from the policies of IFCs.

It is fair to ask how it is possible that, in a high-tax world, divergent states like IFCs somehow contribute to the economic well-being of other countries. After all, the concerns of high-tax countries

seem entirely reasonable, and tax rate differences alone are commonly thought to contribute to economic distortions. Most of the answers lie ultimately in the policies of high tax countries. Countries can face difficult political and other constraints in designing their taxes and regulations, and the policies ultimately chosen entail tradeoffs to which they take differing approaches. Some of the problems that countries face in designing their policies, and the costs that are associated with their choices, can be mitigated by the actions of IFCs. In a more perfect world, with universally efficient and effective tax and regulatory policies, the benefits that IFCs provide would be much smaller than they are today – but that world is today only a distant possibility. In the world as we know it, the flaws in national tax systems and the inefficiencies created by policy choices can be at least partially undone, albeit indirectly, by the actions of IFCs.

In evaluating the contributions of IFCs it is important to avoid the intuitive, but ultimately misguided, zero-sum conception of how economies work. The reality is that greater economic activity in one part of the world need not reduce activity elsewhere. The modern economic conception is not that there is a fixed amount of investment and employment that is distributed among places in a zero-sum fashion, so that more for one means less for another. Instead, it is now understood that investment, employment and innovation in one place generally contributes to related activities elsewhere, and that this process operates for IFCs as well as other jurisdictions.

Greater economic activity in one part of the world need not reduce activity elsewhere

Why Do Countries Become IFCs?

IFCs play increasingly important roles in global financial markets and the world economy. In order to evaluate the economic consequences of IFC policies it is useful to start with an understanding of the economic forces that contribute to the formation of IFCs.

The relative ease of international trade, capital movement and communication makes it possible for production to locate in many places around the world and for tax burdens to be avoided through international transactions. Since location choices, activity levels, and taxable incomes are sensitive to local tax rates, it stands to reason that governments would feel intensifying international pressure to reduce tax burdens on business activities, investors, and possibly high-net-worth individuals. If tax rates fall without other compensating changes, then government tax revenues will decline, and with them government expenditures. A general reduction in government expenditures entails reduced outlays on social welfare and education programs, particularly since there are no countervailing international

pressures on governments to maintain this spending.

How then can governments find revenues to finance social spending and other programs without creating enormous economic distortions? Distortions are minimized by taxing sources of revenue that are least responsive to taxation. Land is the classic example of a factor inelastic in supply and therefore nondistortionary to tax, though taxing land raises other issues and in any case modern governments require far more revenue than is feasible to obtain from land taxes alone.

A good part of the problem facing governments is the mobility and potential mobility of economic activity. Some aspects of this mobility are clearly observable, taking the form of foreign direct investment by multinational firms, portfolio investment by individuals and financial institutions, international trade, immigration of individuals, international licensing of intangible property, and other forms of international factor mobility. Other features of mobility are more subtle,

A good part of the problem facing governments is the mobility and potential mobility of economic activity

taking the form of businesses that thrive in locations that heretofore would not have been suitable for them, workforces that need not move because markets come to them, and ideas that are adopted everywhere. In the absence of coordinated government policies, the potential mobility of economic activity makes it extremely difficult for governments to exploit monopoly positions over much of their tax bases, thereby greatly contributing to the distortions created in the course of raising tax revenue.

Small countries, with their relatively more open economies, have always faced greater international pressures than have large countries did, and their fiscal systems therefore had to adapt earlier than large countries did to the greater mobility that open markets create. The evidence indicates that small countries rely much less than other countries do on income taxes imposed on individuals and corporations. IFCs, with their typically very low tax rates on individual and corporate income, are prime examples of this. While small and more open economies certainly use income taxes, their governments rely much less on these taxes than they do on expenditure-type taxes such as excise, sales and value-added taxes, as well as tariffs on imported goods.

Expenditure-type taxes have risen in popularity everywhere in the world, as reflected in the fact that more than 130 countries now impose significant value-added taxes, and there is

widespread reliance on excise taxes on gasoline and other commodities. The popularity of expenditure taxes is due in part to their administrative and enforcement features, and in part to their efficiency properties. In a globalizing world, expenditures have relatively clear geographic associations, reducing the potential for international tax avoidance and generally reducing the mobility of the tax base compared to alternatives, such as personal income taxes or source-based business taxes, including the corporate income tax. Expenditure taxes do not directly tax capital returns, but do so indirectly by taxing all returns when spent on goods and services, which has the effect of taxing pure profits on capital investments while effectively exempting normal returns to saving.

Modern analysis of the corporate tax rate implications of international capital mobility dates to Diamond and Mirrlees (1971), who demonstrate that efficient taxation by small countries that are open to international trade and investment entails zero taxation of income earned by investors. The explanation for their result is that any positive taxation distorts the economy more than other tax alternatives would, without shifting any of the tax burden away from domestic residents and onto foreign investors (Gordon and Hines, 2002). The reason is that small countries lack the market power necessary in order to impose tax burdens on others: investors demand world rates of return from their investments,

Small countries with their relatively more open economies have always faced greater international pressures than have large countries

and in the absence of such returns will simply locate their investments elsewhere. As a result, taxes imposed by small countries must be offset by higher pretax investment returns, which can only arise if local

For small jurisdictions, taxing investment entails reducing local wages

wages fall in response to higher tax rates. Hence for small jurisdictions, taxing investment entails reducing local wages.

But that is not all. Local wages fall because the productivity of local labor is reduced by reductions in investment levels that accompany higher tax rates. The capital that remains earns an adequate after-tax return, but the outcome is nonetheless inefficient for the usual reasons why tax-induced production distortions are inefficient: investments that would otherwise add economic value do not materialize due to tax distortions. As a result, small countries that persist in heavily taxing income earned by foreign investors will have lower incomes than those that do not.

Governments unable to raise significant amounts of revenue by taxing mobile business income may be able to use other taxes, but

the revenue potential of certain alternatives to business taxes are to a lesser degree also limited by international considerations. In the case of personal income taxes, the ability to use international financial transactions may facilitate tax avoidance by high income taxpayers, and international mobility of individuals and their earnings increases the mobility of the personal income tax base. Furthermore, downward pressure on business tax rates created by international competition is likely to exert downward pressure on top personal income tax rates also, due to the ability of taxpayers to select the forms of business organization. Top personal income tax rates that greatly exceed top corporate income tax rates create incentives for individuals to create corporations financed with personal investments which effectively convert personal income into corporate income, thereby undermining the revenue potential of high personal tax rates and in the process inefficiently directing their investments (Gordon and Mackie-Mason, 1995). In response to this possibility, many governments are loath to introduce significant distinctions between top personal and business tax rates.

What this adds up to is a strong economic prescription for small countries that have successfully joined the world economy through trade and investment. The economies of these countries benefit from tax systems that eschew corporate and

personal income taxes in favor of expenditure-type taxes such as value-added taxes. IFCs appear to have paid heed to this message, and while they are perhaps the most successful examples, they are not alone.

The low corporate and personal tax rates offered by IFCs are consistent with the positions of small countries in the world economy

Far from being anomalous, the low corporate and personal tax rates offered by IFCs are consistent with the positions of small countries in the world economy. As the process of globalization deepens, and more countries come to rely on international flows of trade and investment, in some sense all countries become smaller and more open, and therefore all countries may find aspects of IFC economic policies increasingly attractive for themselves.

Hines and Summers (2009) report that countries with small populations, and those that are most open to international trade, rely much less heavily on corporate and personal income taxes than do larger and more economically closed countries (such as the United States). The small countries instead use expenditure-type taxes to fund their governments. In their statistical analysis of the determinants of tax revenues, Hines and Summers report that, in 1999, a 10 percent smaller national population is associated with a 1 percent lower ratio of income taxes to total tax revenue – and evidence from changes over time point to even stronger effects of changes in country size on the use of income taxes.

The Economic Role of IFCs

IFCs play increasingly important roles in global financial markets and the world economy. There are at least five ways in which IFCs contribute to the operation of economies worldwide.

The first is the important role of IFCs in stimulating foreign direct investment in high-tax parts of the world. Investors are often better able to structure their capital commitments to high-tax countries by combining their investments in high-tax places with investments in IFCs, and it appears that levels of foreign direct investment in high-tax countries are sensitive to the availability of financing structures that use IFCs. Evidence of foreign direct investment patterns indicates that firms that are more likely to establish finance affiliates in IFCs exhibit more rapid growth rates of investment and sales in nearby high-tax countries.

The second contribution of IFCs is to discipline financial markets in other parts of the world, limiting the degree to which banks and other large institutions can exploit local monopolies to the disadvantage of individuals and businesses. The ability of investors to channel financial

transactions through IFCs reduces interest rate spreads, arbitrary credit allocation, and other problems associated with excessive market power on the part of local financial intermediaries. As a result, IFCs enhance the stability of the world financial architecture.

The third role of IFCs is to promote good government and the benefits that flow from democratic accountability. The evidence indicates that by far the most successful international financial centers are those whose governments score highly on the World Bank's indicators of governance quality. Furthermore, countries and territories without good governance institutions are much less likely to become IFCs than are otherwise similar countries and territories that have high quality governance institutions. As a result, IFCs display the economic benefits available from democratic reforms, hopefully indirectly encouraging such reforms. Moreover, the unwillingness of market actors to devote extensive resources to the few IFCs without high quality governance institutions means that the IFC market is dominated by countries and territories with

Firms that are more likely to establish finance affiliates in IFCs exhibit more rapid growth rates of investment and sales in nearby high-tax countries

institutions established by transparent and accountable governments.

The transparency and accountability of IFC governance structures may seem inconsistent with their reputations as locations of choice for money launderers, tax evaders, and others seeking to establish anonymous accounts in which to hide assets from others. Quite apart from the distasteful aspects of assisting in the avoidance activities of others, a country that offers ready availability of anonymous accounts may indirectly contribute to the worsening of governance structures around the world by facilitating the payment of bribes to government officials and others. The most recent evidence indicates, however, that IFCs such as: Bermuda, the British Virgin Islands, the Bahamas, the Cayman Islands, and Panama in fact adhere rather strictly to international norms requiring ample documentation in order to create corporate entities and bank accounts, making them unattractive locations for money laundering and tax evasion. Instead, the large high-income countries such as the United States, the United Kingdom, and Canada, with their relaxed banking requirements, serve as the easiest locations for the establishment of anonymous accounts.

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The fourth role of IFCs is their impact on tax collections and tax competition among large countries. The evidence of the last 30 years is that there has been precious little tax competition among OECD countries, as tax bases have broadened at the same time, and to the same degree, that tax rates have fallen.

Recent economic research suggests that the availability of targeted low-tax opportunities, such as financing structures that use IFCs, permits governments to maintain healthy domestic tax bases without triggering, beggar thy neighbor, tax competition. Hence far from ushering an era of unbridled tax competition, there is good reason to believe that IFCs permit governments of large countries to implement the domestic tax policies they want and need in the face of international economic pressures.

The fifth role of IFCs is their place in the world economy. IFCs as a group have enjoyed rapid economic growth in the last 25 years, reflecting in part the growing importance of financial sectors of modern economies, and in part the special roles played by IFCs. Greater affluence in this part of the world contributes to economic performance elsewhere, as part of the usual process of economic spillover. Far from drawing down or somehow reducing economic activity elsewhere in the world, the ability of IFCs to contribute to finance and other sectors adds value to economic activity everywhere.

IFCs and Business Activity in High Tax Countries

There is widespread concern that low-tax jurisdictions, either IFCs or other countries where investment is facilitated by IFCs, impose costs on other countries in attracting investment, employment, and other business activity that would otherwise locate in nearby high-tax areas.

These concerns persist despite the absence of any reliable estimates of the magnitude or even the direction of such diversion.

Recent quantitative evidence (e.g., Desai, Foley and Hines, 2006a,b) implies that, in fact, the opposite process takes place: that the availability of IFCs that reduce the costs of using low-tax jurisdictions facilitates foreign investment and economic activity in nearby high-tax jurisdictions. There are multiple channels through which IFCs have this effect, all of them stemming ultimately from the ability of investors to use IFC financing structures to rationalize their finances and their tax situations. Tax-efficient financing structures in IFCs permit taxpayers to avoid costly

tax situations in high-tax areas, thereby increasing rates of return and making investment in high-tax places more attractive. For investors located in countries that tax active business income earned elsewhere, the use of IFCs can facilitate deferral of home-country taxation of foreign income, which increases returns to foreign investments. Finally, financial services and other intermediate goods and services obtained at low after-tax cost in IFCs increase the productivity and competitiveness of economic operations in high-tax countries, thereby increasing demand for production in those locations.

By way of explanation, tax deferral is the practice of delaying home-country taxation of foreign income until that income is returned (“repatriated”) to the home country. Virtually all countries permit one form or another of deferral, most commonly by not taxing foreign income at all. Among those countries that tax active foreign business income, this income is subject to home country taxes only when effectively repatriated, which entails

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either its remittance to domestic parent companies or else its use for purposes that smack of excessive attempted avoidance, such as parking the funds in passive investments in low-tax foreign countries. In a deferral regime, a corporation that earns 100 in a foreign jurisdiction with a 20 percent tax rate pays 20 to the foreign government, and has 80 remaining in after-tax profits. If the firm's home government taxes foreign and domestic corporate income at 35 percent, while granting credits for foreign tax payments, the firm owes 15 to its home government (35 minus the foreign tax credit of 20) on its foreign income, but this home country tax obligation is deferred as long as the company retains its profits abroad.

The alternative to deferral is to tax foreign income as it accrues, but countries are loathe to adopt accrual taxation of foreign income for fear of its likely draconian impact on the competitiveness of their firms in foreign markets. There is a solid basis for this concern: firms subject to significant home country taxation on accrued foreign profits would find themselves significantly disadvantaged in competition with firms from other countries. Since the foreign tax credit mechanism implies that income earned in low-tax countries is subject to the highest rates of home country taxation, the likely outcome of a country adopting accrual taxation is that its firms would be unable to compete effectively for investments in low-tax countries. Therefore, in order to maintain the competitiveness of

domestic firms in foreign markets, countries universally permit the deferral of home country taxation of active foreign business income.

Desai, Foley and Hines (2006b) offer evidence of the use of IFCs by American multinational firms. Large multinationals, and those that are most active abroad, are the most likely to have affiliates in IFCs, suggesting that the benefits offered by IFCs increase with the scale of financial operations. Additionally, it is informative to distinguish the use of IFCs by multinational parent companies in different industries. Firms in those industries characterized by low foreign tax rates and high volumes of intrafirm trade are more likely than others to have operations in IFCs. In addition, technology-intensive firms have higher than average propensities to establish operations in IFCs.

This evidence is inconsistent with the common view that multinational firms use IFCs solely to reallocate taxable income from high-tax to low-tax jurisdictions through intrafirm trade and transfers of intangible property, since if that were the case then one would expect investors with IFC operations to be those with the highest foreign tax rates. Firms earning income in high-tax locations have the strongest incentives to reallocate taxable income to low-tax locations. Consequently, the fact that multinationals in industries with low foreign tax rates are more likely to operate in tax IFCs indicates that

Firms subject to significant home country taxation on accrued foreign profits would find themselves significantly disadvantaged in competition with firms from other countries

IFC affiliates do not merely serve to relocate profits away from high-tax locations. Instead, this piece of evidence suggests that American firms with low foreign tax rates benefit from using IFC operations to facilitate beneficial financial transactions, some of which may be intended to defer, or otherwise reduce, the cost of U.S. taxation of their foreign incomes.

American multinational firms can benefit from using IFCs to structure transactions that mitigate some of the costs of the U.S. system of taxing the worldwide incomes of American companies. American firms owe taxes to the United States on all of their worldwide incomes, but in order to mitigate double taxation they are entitled to claim credits for taxes paid to foreign governments. As a result of this foreign tax credit system, an American taxpayer owes tax to the United States on the difference between the U.S. and foreign rate (understanding that if the foreign tax rate exceeds the U.S. rate the U.S. government does not provide a tax refund). Thus, if an American taxpayer earns USD 100 in a foreign jurisdiction with a 20 per cent tax rate, then with a 35 per cent U.S. tax rate the taxpayer owes USD 20 (20 per cent of USD 100) to the foreign government and USD 35 (35 per cent of USD 100) to the U.S. government, but the U.S. tax liability is reduced to USD 15 because the taxpayer can claim a credit for USD 20 of tax paid to the foreign government. Furthermore, the United States defers taxation of the profits earned by the foreign subsidiaries

of its resident companies until these profits are repatriated to the United States in the form of dividends paid to parent companies.

As a consequence of the system of worldwide taxation and foreign tax credits, profits earned in low-tax countries typically generate U.S. tax liabilities when repatriated. Analyses in Altshuler and Grubert (2003) and Desai, Foley and Hines (2003) illustrate the uses of IFCs to facilitate deferral of repatriation taxes through a variety of ownership arrangements. These arrangements must be carefully structured in order to avoid immediate home country taxation of certain passive types of income, but they can nonetheless offer benefits to investors with significant potential exposure to home country taxation of lightly taxed foreign income. Consequently, IFCs can benefit multinationals with profits in high-tax locations that can be reallocated to low-tax locations, and can also benefit multinationals with profits in low-tax locations on which repatriation taxes can be deferred.

How is it possible to infer the impact of IFC operations on economic activities elsewhere? The conceptual difficulty facing such an exercise is that taxpayers choose all of their operations jointly, and on the basis of many considerations that may not be apparent to outside observers. Since IFC operations are themselves the product of purposeful choice, it can be very difficult to know that any observed association between IFC operations and domestic operations

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actually represents the effects of IFC operations, since the association might instead simply reflect the impact of factors that lead a firm to establish an IFC in the first place. For example, since larger firms are more apt than others to have IFC operations, it is possible that any apparent association of IFC operations and domestic operations might simply indicate what large firms do, rather than what firms with IFC operations do. In the case of firm size, it is possible to correct for this effect by controlling for firm size in analyzing the impact of IFC operations, but this is possible only because firm size is readily apparent to outside analysts. Other firm features, such as different business strategies and business models, differing market niches, connections of various sorts to local industries, personnel policies, and many others, are far more opaque to outsiders and therefore in practice almost impossible to correct for in analyzing the impact of IFC operations.

Fortunately, there are circumstances in which this inference problem can be addressed in a very satisfactory way, albeit using a method that has a quirky and indirect look. To start with an unrealistic scenario, if IFC operations were randomly assigned to some multinational firms and not others, then by comparing the reactions of firms getting IFC operations with the reactions of firms not getting IFC operations (and assuming that those not assigned IFC operations were prohibited from setting any new ones up), it would be possible to infer what effect IFCs have on economic

activity elsewhere. For example, if firms assigned IFC operations then expanded their employment and capital investment in nearby high-tax locations, a valid conclusion would be that the availability of IFC operations stimulates economic activity in high-tax places. This kind of random assignment is the sine qua non of experimental inference, but alas virtually never happens in practice, so this possibility, while intriguing, is primarily illustrative.

A second unrealistic scenario is one in which business operations in high-tax countries are randomly assigned to firms. Following this random assignment it would then be possible to measure the extent to which firms assigned high levels of operations in high-tax countries are more likely than others to react by establishing affiliates in IFCs. If the empirical pattern has this feature – if firms with operations in high-tax countries exhibit particularly strong demand for IFC operations – then it would follow that IFC operations and high-tax operations complement each other. Indeed, economic theory indicates that the nature of any such complementarity is symmetric: that if random assignment of IFC operations promotes greater activity in high-tax countries, it follows that random assignment of high-tax operations promotes the establishment of IFC operations. This does not solve the problem of finding cases of random assignment (they generally do not exist), but it illustrates that one can look for any impact of IFCs on the high-tax world by examining whether the

high-tax world has an impact on IFCs.

While random assignment is out of the question, there is a statistical alternative known as “instrumental variables” estimation that has some of the same features, and has the virtue of being possible to implement in practice. In the context of multinational firms, Desai, Foley and Hines (2006b) demonstrate how one can exploit the fact that foreign economies grow at different rates, and that the differences in economic growth rates are associated with differing rates of growth of economic activity by U.S.-owned affiliates. Thus, for example, if Italy’s economy grows at 8 percent a year and Spain’s economy grows at 3 percent a year, American firms will tend to expand their operations more rapidly in Italy than in Spain. Following this example, some American firms start out with significant Italian operations and others with significant Spanish operations. As long as a firm’s initial distribution of activity among non-IFC countries (in this case, Italy and Spain) can be treated as “random” from a statistical standpoint, then the subsequent differential growth rates of their economies can be used to predict non-IFC investment.

The Desai, Foley and Hines (2006b) study uses the fact that firms differ in their initial distributions of foreign economic activity to predict different growth rates of subsequent activity, based on differences in the average GDP growth rates of the countries in which their activities were initially

concentrated. These predicted growth rates then can be matched to the likelihood of the same firms creating or eliminating IFC affiliates.

The results indicate that greater activity outside of IFCs is associated with greater demand for IFC affiliates. Higher sales growth rates outside of IFCs are associated with greater likelihood of establishing IFC affiliates. This result is not driven simply by firms that use nearby IFC affiliates to market their goods produced in high-tax locations, since the evidence similarly indicates that firms accumulating capital at faster rates outside of IFCs are the ones that are most likely to acquire new operations in IFCs.

Firms whose initial investments were concentrated in economies that subsequently grew rapidly are the most likely to establish new IFC affiliates. This pattern implies that policies that reduce the cost of using IFC operations should stimulate greater economic activity among foreign affiliates outside of IFCs. The statistical evidence implies that, for the typical American multinational firm, a 1 percent greater likelihood of establishing an IFC affiliate is associated with 0.5 to 0.7 percent greater sales and investment growth outside of IFCs within the same region.

Desai, Foley and Hines (2006b) offer some disaggregated regional evidence of these effects of IFCs. While IFCs in the Asia/Pacific region appear not to have statistically significant effects on

Policies that reduce the cost of using IFC operations should stimulate greater economic activity among foreign affiliates outside of IFCs

the performance of nearby non-IFC operations, the estimated effects of IFCs in the European and American regions are similar in magnitude, sign, and significance levels to that of the whole sample. Given the much greater economic importance of Europe and the Americas for U.S. multinationals, it is perhaps not surprising that their patterns so closely resemble those of the sample as a whole.

A recent study by Blanco and Rogers (2009) draws similar conclusions from its analysis of the effects of foreign direct investment in IFCs on foreign direct investment in low-income countries in the same regions. Using country-level data on aggregate foreign investment flows from 1990-2006, this study reports that investment in developing countries is positively associated with proximity to the nearest IFC and to the level of foreign investment in the nearest IFC.

Contrary to many policy concerns, therefore, the ability of investors to use IFC operations does not appear to divert activity from other jurisdictions. The empirical evidence indicates that firms facing reduced costs of establishing IFC operations respond in part by expanding their foreign activities in nearby high-tax countries. Hence it appears that careful use of IFC affiliates permits foreign investors to avoid financing costs they would otherwise incur, and some of the tax burdens imposed by domestic and foreign authorities, thereby maintaining foreign investment at levels exceeding those that would

persist if the use of IFCs were more difficult or costly.

There is a closely related question about the impact of foreign direct investment on economic activity in home countries. If IFCs encourage foreign direct investment in even high-tax foreign countries, might that not deplete economic resources that would otherwise be devoted to producing jobs and activity at home? Put differently, how should the government of a capital exporting country view institutions that contribute to international investment?

It is a curious fact that both capital exporting countries and capital importing countries have at times expressed concern over the consequences of international capital flows. Capital exporting countries worry that too much of their capital goes abroad while capital importing countries fear foreign control of domestic assets and the possible macroeconomic instability associated with rapid changes in foreign investment levels. The concerns of capital exporting countries, while diffuse, often are based on conceptions of outbound foreign direct investment as diverting economic activity. Given such conceptions, the growing overseas activities of multinational firms have become a source of perceived economic insecurity for workers, managers, and tax collectors.

Viewed dispassionately, it is far from clear that greater levels of outbound foreign direct investment come at the cost of economic activity

Investment in developing countries is positively associated with proximity to the nearest IFC and to the level of foreign investment in the nearest IFC.

at home. Instead, there are two possibilities. The first possibility is that a multinational firm's total worldwide production level is approximately fixed, being determined by resource limits, capacity constraints, or market competition. Given that output can be produced either at home or abroad, any additional foreign production then necessarily reduces domestic production, and foreign investment comes at the cost of domestic investment. The second, and far more likely, possibility is that the level of total production is not fixed, but it is instead responsive to profit opportunities. If this is true, then increases in foreign investment have the potential to raise the return to domestic production, stimulating demand for domestic activity and domestic output. Firms might, for example, find that foreign operations provide valuable intermediate inputs at low cost, or that foreign affiliates serve as ready buyers of tangible and intangible property produced at home. In either of these cases the ability to exploit foreign opportunities increases total demand for domestic factors of production.

The operation of international capital markets requires that the capital account must be balanced over time: net outbound foreign investment equals net inbound foreign investment in present value. It does not, however, follow from this implication of market equilibrium that greater outbound foreign direct investment triggers greater inbound foreign direct investment,

since the capital account can be balanced either through foreign direct investment flows or through portfolio capital flows. Hence the degree to

Increases in foreign investment have the potential to raise the return to domestic production, stimulating demand for domestic activity and domestic output.

which greater outbound foreign direct investment is associated with greater or lesser domestic investment is ultimately an empirical question.

There is a flurry of recent evidence suggesting that greater outbound foreign direct investment may not reduce the size of the domestic capital stock, but instead more likely increases it. This evidence includes aggregate time-series evidence of the behavior of U.S. multinational firms (Desai, Foley and Hines, 2005), aggregate evidence for Australia (Faeth, 2006), industry-level studies of Germany (Arndt, Buch, and Schnitzer, 2007) and Canada (Hejazi and Pauly, 2003), and firm-level evidence for the United States (Desai, Foley and Hines, 2009),

the United Kingdom (Simpson, 2008) and Germany (Kleinert and Toubal, 2007). The difficulty confronting all of these studies is that foreign investment is itself a purposive choice, reflecting economic conditions that very likely also directly influence the desirability of domestic investment, making it difficult to disentangle the pure effect of greater foreign investment on domestic economic activity. These studies approach this problem in different ways, drawing conclusions that are accordingly persuasive to differing degrees, though the accumulation of this evidence strongly points to the possibility that greater outbound investment is associated with greater domestic investment.

The most recent evidence from the United States indicates that greater levels of foreign investment by American multinational firms are associated with expansions in domestic production activities by the same firms. Desai, Foley and Hines (2005) analyze annual evidence for American firms since the early 1980s, asking to what extent greater expenditures abroad by multinational firms are associated with changes in domestic investment. The pattern is quite striking: this evidence indicates that an additional dollar of foreign investment is associated with USD 3.5 of greater domestic investment. While intriguing, this evidence is far from conclusive, for reasons familiar from the prior discussion: since there is not random assignment of foreign investment, it follows that drawing causal inferences

is potentially fraught with difficulty. In particular, this pattern could reflect the impact of fluctuating economic conditions that influence domestic and foreign investment in similar directions.

Detailed firm-level evidence indicates more strongly that there are significant causal effects of foreign investment on domestic activity. Desai, Foley and Hines (2009) evaluate the extent to which increased foreign activity by U.S. manufacturing firms influenced their domestic activities between 1982 and 2004. This exercise employs confidential affiliate-level information on the activities of U.S. manufacturing firms collected by the U.S. Department of Commerce, Bureau of Economic Analysis. These data permit individual foreign operations to be matched to the domestic activities of the same firms; as a result, it is possible to measure the extent to which expansions in foreign business activity coincide with changes in domestic activity. The evidence indicates that there is a strong positive correlation between the domestic and foreign activity levels of multinational firms.

Figure 1 illustrates this pattern. The figure depicts changes between five-year intervals in the contemporaneous foreign and domestic sales of individual American multinational firms, with changes measured as a percent of the average of starting and ending sales levels, so the measured change varies between -2 and 2. As is evident from the figure, there is a positive association between these changes:

Greater levels of foreign investment by American multinational firms are associated with expansions in domestic production activities by the same firms.

firms that expand their sales abroad over a five-year period also expand their sales at home.

As foreign and domestic operations are jointly determined, this evidence is difficult to interpret. For example, the discovery of a new drug by a pharmaceutical company may result in increased activity both abroad and at home. Alternatively, real exchange rate movements may make it more profitable for a U.S. firm to produce in foreign locations and less profitable to produce in the United States, thereby encouraging the firm to expand its foreign activities and reduce its domestic activities more or less simultaneously, even though the foreign activities and domestic activities are unrelated. Without random assignment of foreign operations, or some other plausibly exogenous variation in the foreign activities of firms, evaluating the impact of foreign operations on domestic economic activity is highly problematic.

Fortunately, it is possible to use a version of the instrumental variables method described earlier to replicate something akin to a random assignment of foreign operations, again by exploiting that the locations of foreign investments differ significantly between firms. It is therefore possible to construct firm-specific foreign GDP growth measures, which can be used to generate predicted growth rates of foreign activity that are then used to explain changes in domestic activity. This empirical procedure effectively compares two U.S. firms, one whose

foreign investments in 1982 were, for example, concentrated in Britain, and another whose foreign investments were concentrated in France. As the British economy subsequently grew more rapidly than the French economy, the firm with British operations should

Foreign economic growth rates are strong predictors of subsequent foreign investment by U.S. firms.

exhibit more rapid growth of foreign investment than would the firm with French operations. If the domestic activities of the U.S. firm with British operations grow at different rates than the domestic activities of a similar U.S. firm with French operations, it may then be appropriate to interpret the difference as reflecting that foreign business expansions stimulate greater business activity at home.

Foreign economic growth rates are strong predictors of subsequent foreign investment by U.S. firms. Foreign growth rates predict increases in foreign investment by firms whose foreign affiliates sell their output locally, and also by firms whose foreign affiliates export most of their output. This second relationship suggests that foreign economic growth rates do not capture merely the effects of growing

local demand, but instead also reflect changing economic opportunities from movements in real input costs due to productivity gains or other changes. Consequently, the method of using foreign economic growth rates to predict foreign activity levels provides evidence of the likely impact of changes in foreign activity that arise from a number of possible sources.

The estimates reported by Desai, Foley and Hines (2009) imply that 10 percent greater foreign capital investment triggers 2.6 percent additional domestic capital investment, and that 10 percent greater foreign employee compensation is associated with 3.7 percent greater domestic employee compensation. There are similar positive relationships between foreign and domestic changes in assets, and numbers of employees.

The example of one large U.S. manufacturing firm illustrates the relationships manifest in the large-sample evidence. Between 2000 and 2006, Caterpillar Inc. increased its foreign employment by 49 percent, to the point that foreign employment constituted half of its total global employment. Over this period, Caterpillar's U.S. exports, a fraction of which were sent to its foreign affiliates, grew by 104 percent, and its U.S. employment grew by 29 percent. While it is often a mistake to draw strong inferences for whole economies from the experiences of individual companies, the Caterpillar example offers an illustration of significant foreign

expansions that are associated with greater domestic activity.

There are several channels through which foreign activities can influence the scope of domestic operations, including cases in which foreign production requires inputs of tangible or intellectual property produced in the home country. The same instrumental variables method used to identify the effect of foreign investment on domestic investment can also be used to identify the effect of foreign investment on other types of domestic activity. The estimates reported in Desai, Foley and Hines (2009) indicate that greater foreign activity is associated with higher exports from U.S. parent companies to their foreign affiliates and is also associated with greater domestic R&D spending. Specifically, 10 percent greater predicted foreign sales growth is associated with 6.5 percent greater exports to foreign affiliates and 5 percent higher domestic R&D expenditures.

The estimated effect of foreign expansions in encouraging domestic economic activity persists in supplemental specifications designed to address alternative interpretations of the main results. The use of weighted foreign economic growth rates as instruments for changes in foreign investment has the potential to produce misleading results if the foreign investments of firms planning rapid expansion of domestic investment are disproportionately attracted to economies expected to grow rapidly.

10 percent greater foreign capital investment triggers 2.6 percent additional domestic capital investment

To guard against this possibility, Desai, Foley and Hines (2009) try using only the portion of foreign GDP growth that cannot be predicted on the basis of past growth to explain foreign investment; this substitution produces results that are very similar to the others.

In order to avoid the possibility that unexpected industry-specific events might produce an apparent correlation of foreign and domestic investment growth rates, the statistical evidence reported by Desai, Foley and Hines (2009) includes controls for firm industries. If firms export to unaffiliated customers, and invest in the same countries, foreign economic growth rates might directly stimulate export-oriented domestic activity. This can be controlled by including an additional variable equal to export-weighted foreign economic growth, which again does not alter the results. Finally, there are circumstances in which real exchange rate movements that are correlated with economic growth rates might independently influence both foreign and domestic activity, but Desai, Foley and Hines find that replicating the analysis with controls for firm-specific changes in foreign exchange rates yields similar answers. Hence in all of these variations their evidence offers no support for the simple, and common, perception that foreign investment diverts resources from domestic investment.

It has been natural to assume that foreign investment comes at the expense of domestic investment. New

evidence from analyses of American multinational firms suggests instead that greater foreign investment is associated with higher levels of domestic investment. This estimated relationship implies that firms combine home production with foreign production to generate final output at lower cost than would be possible with production in just one country, making each stage of the production process more profitable, and therefore, in a market economy, more abundant. It is clear that the simple story, in which the world has a fixed stock of investment capital that can either go to one place or another, cannot quite be right. As a result, IFCs that facilitate foreign investment thereby indirectly also stimulate economic activity in capital exporting countries.

It is clear that the simple story, in which the world has a fixed stock of investment capital that can either go to one place or another, cannot quite be right

Competition and the Banking Sector

A very important function of IFCs is to provide competition for, and thereby discipline, financial markets elsewhere in the world.

The financial sectors of economies in much of the world are tightly controlled by small numbers of firms and by governments, either through monopolies that are sanctioned by regulation or, most commonly, through state ownership of banks (La Porta et al., 2002). This is particularly true in low-income countries and countries that lack strong democratic institutions, where government ownership of the banking sector is the norm, and where there is pervasive cronyism in the allocation of credit. The resulting absence of competition in credit markets raises interest rates charged to consumers and businesses, and encourages credit rationing in which certain borrowers are effectively unable to obtain credit at any feasible price. To make matters worse, absence of competition in banking appears to influence the whole financial sector, which is underdeveloped as a result.

Nearby IFCs have the potential to address some of the problems associated with uncompetitive financial sectors.

In modern economies there is a considerable cost associated with financial underdevelopment, whatever its underlying cause. As La Porta et al. (2002) document, the financial sectors of economies with uncompetitive banking sectors are less active than are the financial sectors of other economies, and countries with monopolized and therefore underdeveloped financial sectors exhibit slow rates of productivity growth and low per capital incomes.

Nearby IFCs have the potential to address some of the problems associated with uncompetitive financial sectors, in essence by providing a needed source of competition for local banks and other financial intermediaries. The significance of being nearby is that geographic proximity matters, in that investors from wealthy countries put considerably more capital into nearby IFCs than those that are far away (Rose and Spiegel, 2007). While it may seem counterintuitive that in today's globalized financial markets

it matters that an IFC is close to an investor's home, in fact the evidence indicates that this does matter, perhaps reflecting that firms in IFCs tailor their services to the needs of nearby clients.

There is now considerable quantitative evidence that competition provided by nearby IFCs is effective. Rose and Spiegel (2007) document that commercial banks in countries with nearby IFCs have lower interest rate spreads (differences between borrowing rates and the rates that depositors are paid) than do other countries, which is a reliable indicator of greater banking competition. Their estimates indicate that, controlling for other observable factors, doubling a country's distance from the nearest IFC is associated with 1.63 percent larger interest rate spreads. Other variables offer similar evidence of the impact of IFCs on financial market competition. The banking sectors of countries proximate to IFCs are less concentrated, meaning that the share of the market controlled by the five largest banks is smaller, and the total number of banks divided by GDP is greater, than is the case for countries without nearby IFCs. Doubling a country's distance from the nearest IFC is associated with a 6.91 percent greater share of the country's banking sector controlled by the five largest commercial banks. This and the larger total number of commercial banks in countries close to IFCs reflect the difficulty of monopolizing a domestic banking sector when investors have alternatives in nearby IFCs.

The market competition associated with proximity to IFCs has observable effects on the financial sectors of affected countries. Rose and Spiegel report that, compared to other countries, the private financial markets of economies with nearby IFCs extend more credit to their private sectors, have greater aggregate quasi-liquid liabilities (reflective of levels of market borrowing), and higher levels of M2 (a monetary aggregate that is partly the product of intermediation by the banking sector). All of these measures are consistent with high levels of private sector financial activity.

It is clear from this evidence that IFCs contribute to financial sector depth in nearby countries, and it is logical that they should do so, since international finance facilitates domestic finance. Do countries benefit from greater financial sector development? The evidence is that economies with more competitive financial sectors have higher per capita income levels and display faster rates of GDP growth than do other economies, which is not surprising, given the importance of financial arrangements to modern economies. Another way to express this question is to ask what the alternative is to competition in financial markets. The alternative is a monopolized or quasi-monopolized sector that charges above-market prices to consumers and businesses, that rations capital on the basis of personal relationships, and that serves as a drag on local economies.

IFCs contribute to financial sector depth in nearby countries

Governance Issues

The central characteristics of countries that become IFCs are by now well understood: IFCs are small countries, commonly below one million in population, and are generally more affluent than other countries.

In addition, new evidence (Dharmapala and Hines, 2009) shows that IFCs score very well on the World Bank's cross-country measures of governance quality, which include measures of voice and accountability, political stability, government effectiveness, rule of law, and control of corruption. These World Bank governance quality measures are reported by Kaufmann, Kraay and Mastruzzi (2005), who compile 352 different underlying governance-related variables reported in 37 different data sets collected by international organizations, private firms, nonprofits and universities.

IFCs score very well on the World Bank's cross-country measures of governance quality

This evidence indicates that there are almost no poorly governed IFCs. In part, this reflects that IFCs have above-average incomes, which tend not to be associated with poor governance. Furthermore, IFCs are very often small countries, which may display different political patterns than other countries. But even after controlling for these factors there is a pronounced pattern in

which IFCs score highly on World Bank governance measures.

Figure two illustrates this pattern. The figure depicts data for countries with populations below one million in 1982; the squares represent IFCs, the dots small countries that are not IFCs. The horizontal axis measures the natural logarithm of per capita GDP, whereas the vertical axis measures a country's score on the World Bank governance index. The straight line in the diagram represents the predicted (positive) association between income and governance levels from a simple statistical analysis.

It is clear from this figure that IFCs have higher governance scores than their sizes and affluence levels would otherwise warrant. 17 of the IFCs depicted in Figure two lie above the predicted line, whereas only four lie below it. In a statistical analysis that includes a larger sample of countries, and controls for other observable variables including income, population, and aspects of geography, the impact of good governance on the likelihood of becoming an IFC is both statistically significant and quantitatively very large: improving the quality of governance from the level of Brazil to that of Portugal raises the likelihood of a small

country being an IFC from 26 percent to roughly 61 percent.

Cross-country evidence of this type can be difficult to interpret, since the data reflect a non-random assignment of local governance quality, which may be correlated with other economic and political conditions that influence whether or not a country becomes an IFC. The association of governance quality and IFC status persists in statistical work that includes controls for additional considerations such as measures of economic openness, British legal origins, use of the English language, use of a parliamentary system, communications infrastructure, and natural resource abundance. In addition, measures of past governance quality are associated with being an IFC in 2004, suggesting that the relevant components of governance institutions are those that are stable over long periods of time.

Why are better-governed countries more likely than others to be IFCs? One important interpretation is that the returns to becoming an IFC are greater for well-governed countries: that higher foreign investment flows, and the economic benefits that accompany them, are more likely to materialize for well-governed IFCs than they would for poorly-governed countries that attempt to set themselves up as financial centers. In this interpretation, poorly governed countries do not forego potential economic benefits in not becoming IFCs, since few if any of benefits would flow to them if they did. Evidence

from the behavior of American firms is consistent with this explanation, in that, among poorly governed countries, low tax rates do not prompt very much additional U.S. investment, whereas among well governed countries there is a significant investment impact of lower tax rates (Dharmapala and Hines, 2009).

This is not the only interpretation of the evidence; it is also possible that the financial activity of IFC economies, and resulting affluence, improves local governance by encouraging media outlets, keeping citizens informed, and rewarding high-quality public service with the returns that can be earned in a market economy upon leaving government. Either way, it is clear that having high quality governance institutions and effective public servants is closely connected to effective operation as an IFC. The world benefits from additional reminders that quality governance is important to many aspects of peoples' lives, not the least of which is their livelihoods, and IFCs, which as a group are both well-governed and affluent, offer such reminders.

The evidence that IFCs tend to be well governed may seem inconsistent with the reputation of IFCs as locations in which investors can readily hide assets in order to launder funds, evade taxes, or avoid other financial commitments. Slemrod (2008) offers a statistical analysis of the determinants of IFC status and the determinants of whether or not countries are identified as money laundering sites by the

It is clear that having high quality governance institutions and effective public servants is closely connected to effective operation as an IFC

intergovernmental Financial Action Task Force on Money Laundering, which operates out of the OECD headquarters in Paris. Slemrod confirms that, controlling for other country characteristics, better-governed countries are more likely than others to be IFCs, but reports that the same is not true of money laundering sites; instead, he finds that countries with better governance are a bit less likely than others to be listed as money laundering sites. This reflects in part that many countries listed as money laundering sites are not IFCs, and most IFCs are not listed as money laundering sites; but also more broadly, that these two groups of countries have very dissimilar characteristics.

The secret nature of money laundering, tax evasion, and the use of anonymous corporations and bank accounts makes it very difficult to know just how prevalent such practices are and where they are undertaken. Much of the limited available evidence concerns locations where practices are detected, but these need not be representative of where they occur – and since detection typically happens long after occurrence, evidence of detected money laundering and tax evasion typically identifies only where practices took place in the past. Consequently, there is a conjectural element to most classifications of money laundering sites, in which context it is interesting to note that the money laundering list produced by the OECD-connected intergovernmental Financial Action Task Force on Money Laundering has no OECD member countries on the list.

Most IFCs are not listed as money laundering sites

A very recent study by Sharman (forthcoming) offers powerful evidence of the selective enforcement of national policies that generally prohibit the establishment of anonymous corporations and bank accounts that can be used for all sorts of purposes, including money laundering and tax evasion. Sharman approached corporate service providers in 22 different countries about the possibility of creating shell corporations, for which, in those cases in which anonymous companies were successfully established, he also attempted to create anonymous bank accounts. The virtue of this study is that the same approaches were used in each case, and the resulting evidence does not depend on ultimate detection, since Sharman has full knowledge of when he was and was not successful. The evidence is that more than a third of the time Sharman was able to set up anonymous corporations quite readily and at very low cost, though creating accompanying anonymous bank accounts proved more difficult, though far from impossible.

The national pattern of Sharman's evidence is most instructive. Sharman was unable to establish anonymous corporations using corporate service providers located in commonly-identified IFCs, including: the Bahamas, the British Virgin Islands, the Cayman Islands, Dominica, Nauru, Panama, and the Seychelles. By contrast, corporate service providers in OECD countries, including the United States, the United Kingdom, Spain and Canada, proved most helpful to his enterprise.

He readily established anonymous corporations using these providers, with those in the United States distinguished by the ease with which they accommodated his request to create the corporations and set up bank accounts with unverifiable personal information. Such corporations and accounts offer excellent opportunities for those interested in using them for those purposes for which anonymity is particularly desirable.

Sharman's evidence is consistent with the findings of Klautke and Weichenrieder (2008) concerning the impact of the European Savings Directive, a policy in which European Union members are generally required to report interest income earned by nonresidents to their countries of residence. The Savings Directive is intended to prevent tax avoidance through the use of foreign savings accounts located elsewhere in Europe, and thereby facilitate the imposition of home-country taxes on interest income. Austria, Belgium, and Luxembourg were granted temporary exemptions from this reporting regime, however, in return for imposing withholding taxes on interest earned by nonresidents (the proceeds of which are paid by Austria, Belgium and Luxembourg to residence countries without disclosing the identities of account-holders). The plot thickens when one learns that certain older bonds were "grandfathered" when the Savings Directive was introduced, the consequence being that owners of these bonds are subject neither to reporting nor to withholding taxes on their interest receipts. Tax

evaders and others eager to maintain their anonymity would find these bonds to be attractive investments, yet Klautke and Weichenrieder report that the introduction of the Savings Directive was not accompanied by significant appreciation of the prices of these bonds relative to more transparent alternatives, suggesting that European investors have access to even better methods of hiding their money when they need to do so.

The adherence of IFC corporate service providers to established norms of documentation and transparency in the creation of corporations and bank accounts may have many sources, including the efforts of the OECD (recounted in Sharman, 2006) and various national governments to require compliance by IFCs. This, together with national aspirations and ability to wield effective government power with transparent democratic governance, may conspire to make IFCs more effective at enforcement and thereby much less attractive locations for money laundering and tax evasion than many of their larger brethren. Financial transparency has many attractive features, including that it indirectly reduces opportunities for domestic and foreign corruption by making it difficult to hide the proceeds of bribery. Consequently, it may not be surprising that good governance and financial scrupulousness are associated among IFCs.

IFCs more effective at enforcement and thereby much less attractive locations for money laundering

Tax Policy Efficiency

It stands to reason that countries eager to attract foreign investment might compete with each other by reducing tax rates, as a result of which taxes, and therefore government expenditures, are driven to inefficiently low levels.

To the extent that IFCs contribute to this tax competition, either by offering investors low tax rates themselves, or by facilitating investment in other low-tax countries, then IFCs might be responsible for some of the problems associated with excessive tax competition. The likelihood of such an outcome depends on the tax policies available to governments and the nature of the competitive environment. In order to evaluate this prospect it is helpful to consider the incentives that countries face.

It is noteworthy that international tax competition may also produce outcomes in which capital taxes are higher than they would be in the absence of competition. This can happen when there is foreign ownership of productive factors, when competing countries differ greatly in

size, or when multiple governments attempt to tax the same income sources (Hines, 2006).

The case of foreign ownership is clear: governments that care only about the welfare of domestic residents have incentives to adopt policies that enrich residents at the expense of foreigners. Foreign ownership of local firms may encourage governments to raise local capital tax rates above the levels they would impose in the absence of economic openness, since much of the tax burden is borne by owners to whom the taxing government is largely indifferent. Even foreign ownership of local land may trigger higher corporate tax rates, if the burden of corporate taxes is in part borne by landowners in the form of lower prices. Finally, governments may have incentives to overtax the foreign earnings of domestic companies, since doing so discourages foreign investment and thereby directs resources to the home economy, a valuable exchange in the presence of tax or other distortions. If all governments respond to these

incentives then the result is that capital will be overtaxed by everyone.

The integration of world economies can contribute to the incentive that countries face to tax business income too heavily. Integrated business production may entail many stages in several different countries, all of which contribute to final output. In such a setting, taxes on one stage of production impose burdens on all the others by reducing the after-tax returns earned from producing final output. Taxpayers can avoid these taxes, but at a cost; and one method of avoidance is simply to scale back on production everywhere. As noted by Keen (1998), Keen and Kotsogiannis (2003), and others, the vertical nature of production in several countries gives incentives to impose taxes for which significant parts of the burdens are borne by other taxing jurisdictions – which leads to overtaxation.

IFCs figure prominently in current debates over the scope and consequences of tax competition. IFCs are widely believed to accelerate the process of tax competition between governments. A separate, and more likely, possibility, however, is that the tax avoidance opportunities presented by IFCs allow other countries to maintain high capital tax rates without suffering dramatic reductions in foreign direct investment. Hence the widespread use of IFCs may retard what would otherwise be aggressive competition between other countries to reduce

taxes in order to attract and maintain investment. It is not even necessary that high-tax countries are aware of the importance of IFCs in preserving their ability to attract foreign investment. In effect, what IFCs do is permit governments to distinguish investments, subjecting relatively

IFCs allow other countries to maintain high capital tax rates without suffering dramatic reductions in foreign direct investment

immobile domestic investment to higher tax rates than the highly mobile international investment. Keen (2001) and Hong and Smart (2007) identify the wide set of conditions in which countries benefit from differentiating tax systems in this way, and its impact in improving the outcomes of tax competition.

The evidence is that, despite whatever incentives there may be to compete over tax rates, the tax burden on corporate income in OECD countries has fallen little, if at all, over the past 25 years (see Griffith and Klemm, 2004, and Hines, 2006). Corporate tax rates have fallen, but these declines have been at least

matched by expansions in corporate tax bases. Corporate tax collections are the product of tax rates and tax bases; governments choose tax rates, and governments also choose definitions of tax bases. The rules determining depreciation allowances, inventory valuation, the taxation of capital gains, the deductibility of interest payments, pension and option compensation, and a host of other considerations all affect the tax burden on corporations just as strongly as do statutory corporate tax rates. Over the same period that statutory corporate tax rates have fallen, governments have broadened tax bases, so that the ratio of national corporate tax revenues to GDP among OECD countries has not declined since 1990. The ratio of corporate tax revenues to total tax collections offers a separate measure of the extent to which governments rely on corporate taxes, and here too it is clear that corporate tax revenue as a share of total taxes among OECD countries has not fallen over time, and in fact, reached new highs in 2003 and 2004. The use of IFCs by foreign investors helps to explain this evidence, as high-tax countries are able to maintain high tax rates on domestic investment while continuing to draw significant levels of foreign investment (Hines, 2006).

The analysis of tax competition addresses in large part the concerns that the use of financing structures in IFCs may erode tax bases in high-tax countries. The point of the analysis is that it is important to think about the

alternatives, since it is a mistake to contemplate a world in which all tax provisions are unchanged but IFCs are somehow no longer available to taxpayers. If IFCs were unavailable, then tax competition elsewhere in the world would take on a very different character, most likely resulting in an outcome in which tax rates on business income were significantly reduced relative to what they are today.

The ratio of national corporate tax revenues to GDP among OECD countries has not declined since 1990

There is a largely separate channel through which IFCs contribute to tax collections elsewhere, which is by taxing business and personal income at very low rates and thereby permitting other countries to tax the remainder at high rates. This channel is most clear in the case of countries such as the United States, which subject foreign income to taxation with provision of foreign tax credits, and for which low rates of foreign tax entail few foreign tax credits and therefore greater domestic taxation. Hines and Rice (1994) analyze the U.S. tax revenue consequences of IFC policies, concluding that the low corporate tax rates available in IFCs would enhance U.S. corporate tax

collections even if the low tax rates diverted investment from the United States to foreign locations. Dyreng and Lindsey (2009) offer confirmatory evidence in their study of accounting income reported by publicly-traded U.S. corporations, where they find that U.S. firms with foreign affiliates in certain IFCs pay lower foreign taxes and higher U.S. taxes than do otherwise-similar large U.S. companies. Finally, as noted by Hines (1996), corporate taxes represent only the first level at which business income is taxed; governments also tax business income when firms pay dividends to individual shareholders, when owners of firms deploy their profits to make personal expenditures that are subject to excise and value-added taxation, and at other stages of income transfer, such as when income is bequeathed. By taxing business income so lightly, IFCs indirectly enhance the revenue potential of all of these other taxes.

In evaluating the evidence, it is important to recognize the significance of something that has not happened: corporate and other business taxes have not disappeared. On the contrary, corporate tax systems are raising revenue now at roughly the same clip that they have for the past 30 years. If the reality were different, if corporate tax collections had instead fallen rapidly over the past 30 years, then it would be natural to point to such a development as confirmation of the impact of tax competition, fueled in part by the presence of

IFCs, and to forecast continued declines in corporate tax revenue. The persistence of corporate tax collections does not imply that there is no tax competition, but instead that, in the modern financial world, competition takes a form that does not entail reduced corporate taxation.

Corporate tax systems are raising revenue now at roughly the same clip that they have for the past 30 years

Economic Growth in IFCs

While individual country experiences differ, IFCs as a group have enjoyed very rapid economic growth in the past two decades.

Evidence reported by Hines (2005) indicates that the real per capita incomes of IFCs grew by 3.3 percent a year since 1982, whereas the comparable figure for the world as a whole is 1.4 percent. As a result, by 1999 the largest IFCs held 0.8 percent of world population (not counting the United States), whereas their economies contributed 2.3 percent of total world product (again excluding that of the United States), so per capita economic product in IFCs is more than double the world average.

Financial and other contributions of IFC economies add value to the world in the same way that industries in other countries do

Does the affluence of IFCs come at the expense of the rest of the world? There is no reason to think it does. Indeed, standard economic theory suggests the opposite: greater income earned by one part of the economy redounds ultimately to the benefit of all other parts of the economy (Bhagwati, Panagariya and Srinivasan, 2004). Financial and other contributions of IFC economies add value to the world in the same way that industries in

other countries do, and individuals and businesses who earn returns in IFCs ultimately spend and distribute their returns in ways that stimulate demand for output everywhere. Consequently, the high rates of IFC economic growth have the effect of buoying the world economy, just as slow growth elsewhere tends to depress rates of economic activity in IFC economies.

Conclusion: IFCs as Pressure Valves

There is understandable interest in the impact of international financial centers on other countries, and fortunately, there is extensive recent research that offers important insights into these questions.

The evidence indicates that IFCs contribute to financial development and stability in neighboring countries, encourage investment, employment, and other aspects of business development in high-tax countries, have salutary effects on tax competition, promote good government, and enhance economic growth elsewhere. This evidence appears to be quite robust, and suggests a rather different interpretation of the IFC experience than some that appear from more casual readings of the history.

The quantitative economic evidence of the impact of IFCs on other countries offers a useful reminder of two valuable propositions. The first is the benefit of diversity. Simply the fact that IFC policies differ from those of their high-tax neighbors does not imply that there is something wrong or undesirable about what it is that IFCs do. On the contrary, it is the difference between

what IFCs do and what other countries do that makes IFCs valuable to other countries. All human institutions are fallible, including those that produce economic policies in high-tax countries. IFCs play the important role of pressure valves, assisting the policies of their high-tax neighbors by letting off economic steam when the pressure of constrained or excessive policies elsewhere becomes too great.

The second proposition is that there are no economic limits. Greater innovation, production and prosperity in one part of the world need not come at the expense of the rest of the world; instead the opposite is the case, since there is always and everywhere scope for economic expansion with enlightened policies. It is simply misguided to proceed on the assumption that total world economic growth is limited, even in an era when environmental concerns and population pressures create their own challenges. As a consequence, the economic successes of international financial centers do not threaten the prosperity of other parts of the world, appearing instead, on the basis of considerable evidence, to enhance it.

The evidence indicates that IFCs contribute to financial development and stability in neighboring countries

Figure 1: Domestic and Foreign Sales Growth Rates of U.S. Multinational Firms, 1982-1989, 1989-1994, and 1994-1999

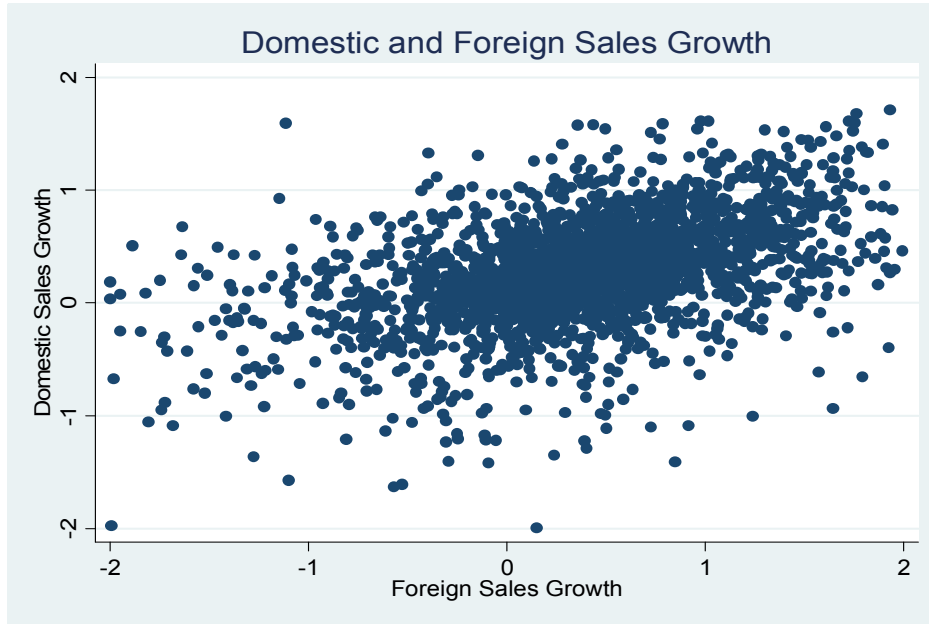
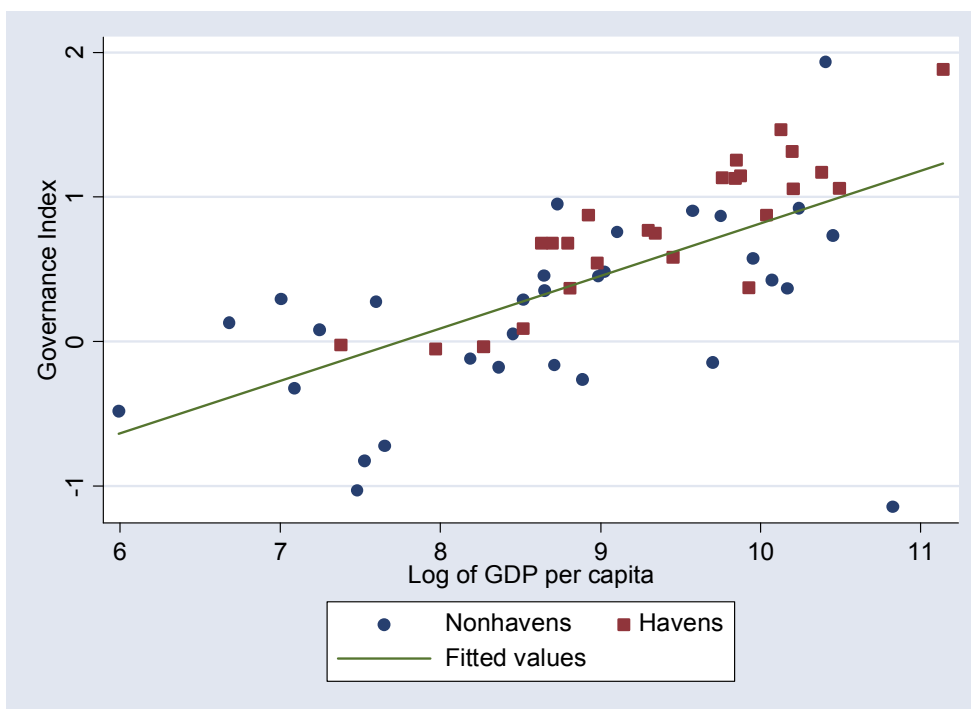


Figure 2: Income Levels and Governance Quality among Small Countries



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