

**Concentrations of Domestic Political and Foreign Economic Power
and the Provision of Public Goods**

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ABSTRACT

The challenges to public good provision from a narrow political selectorate are even larger where the concentration of political power is reinforced or aggravated by a concentration of economic power in the form of a narrow set of foreign direct investors. This result offers a bridge between modernization theory which posits the beneficial and growth enhancing effect of foreign direct investment and dependency theory which argues for a more pernicious impact. The impact of foreign direct investment depends critically upon the nature of the political system it encounters. Where political power is similarly concentrated (i.e., the selectorate is narrower), public goods are suppressed and the predictions of dependency theory obtain. By contrast where political power is diffuse (i.e., the selectorate is broader), public good provision is enhanced. The economic magnitude of these effects is striking with the elasticity of public good provision with respect to income more than an order of magnitude higher in the presence of below average concentration of political and economic power than in the case of above average concentrations.

Political scientists and sociologists in the dependency literature have long argued that a concentration of economic power in the hands of a narrow group of foreign investors can lead to influence over the policymaking process which generates or sustains policies that benefit the interest for foreign investors and their counterparties at the expense of the provision of public goods and, ultimately, economic welfare. Such outcomes are, however, by no means a necessary result of foreign direct investment inflows. The spillovers of technology transfer, job creation, capacity building and integration into the international economy are real as is the potential that foreign investors may promote rather than retard economic and social modernization. These benefits are, however, more likely to dominate and generate net benefits to an economy from foreign direct investment when that investment is diffuse than when the same magnitude of flows are more concentrated.

The concentration of political power is an important moderator to this relationship. Where political power is concentrated in a narrow selectorate, a growing body of scholarship argues for and finds reduced provision of public goods. Where foreign direct investment is heavily concentrated and political power is similarly narrow, the risk of diversion of national resources away from public goods to cooperating narrow political and economic elite is magnified. By contrast, where foreign direct investment is diffuse and political power is similarly broad-based, the likelihood of diversion of such resources away from public goods is lower and the expenditure on public goods as well as the efficacy of that expenditure is enhanced. The question is not whether the economic benefits of foreign direct investment trump the costs of dependency but how often and under what economic and political conditions.

I organize my argument as follows. First, I review the literature on the macroeconomic effect of foreign direct investment surveying first dependency theory and subsequently the economic case in favor of foreign direct investment. Next, I draw upon the literature linking the breadth of the selectorate

to the provision of public goods to link those literatures by highlighting that the net effect of foreign direct investment on public good provision is contingent upon the concentration of that economic influence and the concentration of political power in the host country. I offer two pairs of illustrative caselets to connect this argument to observed interactions between foreign investors and host country governments. I then formally test the hypothesis using a cross-national panel dataset and find that sufficiently diffuse flows into countries with broad-based selectorates do in fact promote the provision of public goods whereas sufficiently concentrated flows into countries with narrow selectorates are associated with lower levels of public goods expenditure and reduced efficacy of that expenditure. Next, I highlight the linkages between these results and previously observed contingencies identified by advocates and critics of foreign direct investment. I discuss next steps in this line of research before concluding with a brief cautionary note regarding potentially erroneous normative conclusions that policymakers and managers might take away from this analysis.

Spillovers of Foreign Direct Investment

Dependency Theory. Building upon a Marxist logic of exploitation by capital, dependency theorists (Amin, 1974, Baran, 1957, Chirot, 1977, Cockcroft, Frank, & Johnson, 1972, Emmanuel, 1972, Frank, 1970, Furtado, 1970, Lall, 1975, Myrdal, 1957, Sunkel, 1972, Wallerstein, 1974) suggest that absent the direct threat posed by organized labor and social movements to capitalists in their industrialized home countries and given the favorable military, economic and technological asymmetries in power in developing host countries, foreign investors will be relatively unchecked in their pursuit of cheap factor inputs and in the repatriation of profits from host countries. Specifically, foreign investors will encourage government investment, regulation and tax policies that minimize labor costs and rights, develop infrastructure that supports a narrow range of primary exports, restrict land reform and limit indigenous entrepreneurship. The net result of foreign direct investment will therefore be to increase income inequality (Bornschieer, Chase-Dunn, & Rubinson, 1978, Boswell & Dixon, 1990, Chase-Dunn,

1975, Dixon & Boswell, 1996, Kentor, 2001, Lee, Nielsen, & Alderson, 2007, Rubinson, 1976), promote excessive urbanization (London, 1987, London & Smith, 1988), increase fertility rates and population growth (Kentor, 2001, London, 1988), retard the growth of state capacity (Rubinson, 1977), restrict political rights (Timberlake & Williams, 1984), increase political violence (Boswell & Dixon, 1990, London & Rubinson, 1989), reduce expenditure on public goods including public health (Wimberley, 1990), nutrition (Mihalache O'keef & Li, 2011, Wimberley & Bello, 1992), children's welfare (Bradshaw, Noonan, Gash, & Sershen, 1992), pollution abatement (Jorgenson, Dick, & Mahutga, 2007) and, ultimately¹ suppress the quality of life (London & Williams, 1988, 1990, Ragin & Bradshaw, 1992) and economic growth (Boswell & Dixon, 1990, Chase-Dunn, 1975, Dixon & Boswell, 1996, Kentor, 2001, London & Williams, 1988, Rubinson, 1977, Stoneman, 1976) at least among the poorest countries that lack the domestic capability to resist the pressure of foreign investors (Bornschiefer, Chase-Dunn, & Rubinson, 1978, Gobalet & Diamond, 1979, Jackman, 1982) or in those countries where foreign investment is concentrated in the primary sector (Mihalache O'keef & Li, 2011).

These arguments have, however, been vigorously challenged by Firebaugh (1996, 1992, Firebaugh & Beck, 1994) on theoretical and methodological grounds. Firebaugh highlights that while the mechanisms above may obtain there is a substantive distinction between arguing that they make foreign direct investment less attractive than domestic investment and that they make foreign direct investment unattractive. Firebaugh's analysis which reinterprets earlier findings, teases apart the impact of the level and flow of foreign direct investment, expands the sample size under analysis and increases the set of control variables casts serious doubt on the empirical findings in support of dependency theory. Additional challenges to dependency theory come from Kobrin (1976) who demonstrates a complementary role for foreign investors and domestic industrial interests in the process of social

¹ Bornschiefer, Volker and Chase-Dunn (1978) and Kentor (2001) allow for an initial positive effect of foreign direct investment followed by a medium- to long-term diminution in growth.

liberalization as well as Jensen (2003) who shows foreign investors are attracted to nations with more democratic political systems and Richards, Gelleny & Sacko (2001) who show foreign investors prefer countries that respect human rights. The ubiquitous liberalization of restrictions on foreign direct investment inflows by sovereign states (Kobrin, 2005) beginning in the 1990s further calls into question the underlying premise that countries with greater investment inflows are somehow worse off.

Modernization Theory. Drawing on the economic growth literature where capital is a crucial input in the production function of a nation (Solow, 1956), economists have long emphasized the centrality of capital accumulation in the development process. More recently, the attention has shifted from the mere provision of capital to the complementary technology, skills and managerial capacity that are embedded in foreign direct investment as opposed to domestic capital (Barro & Sala-i-Martin, 1995, 1997, Grossman & Helpman, 1991). Empirically, positive effects of foreign direct investment on growth are thus found particularly where economies are relatively open (Balasubramanyam, Salisu, & Dapsford, 1996, 1999, Bhagwati, 1978) and thus in particular need of international technology, skills and managerial capacity or where human capital (Borensztein, Gregorio, & Lee, 1998, de Soysa & Oneal, 1999, Xu, 2000) or the initial level of income (Blomstrom, Lipsey, & Zejan, 1992) or financial market development (Alfaro, Chanda, Kalemli-Ozcan, & Sayek, 2008) that allows for absorption of knowhow is relatively developed. Similarly, foreign direct investment in manufacturing where externalities are likely greater is found to enhance growth as compared to investment in primary sectors (Alfaro, 2003, Mihalache O'keef & Li, 2011). On balance, the positive spillovers seem to dominate even when broader measures of sustainability such as the World Bank's indicator of genuine savings (Soysa & Neumayer, 2005) or food security (Jenkins & Scanlan, 2001) are examined rather than income.

These findings are, however, also subject to challenge. Micro-economic studies discern inconsistent evidence for broad-based spillovers (Gorg & Greenaway, 2003, Moran, Graham, &

Blomstrom, 2005). Incorporation of more sophisticated econometric techniques seems to undermine the empirical regularities detected in even the macro-level research (Carkovic & Levine, 2005).

The Political Economy of Concentrated Power: Political AND Economic

Dependency and modernization theorists differ primarily on whether they focus on the political and social or economic consequences of foreign direct investment. This is a false dichotomy. Foreign direct investment is a flow of economic resources that can convey political and social influence. That influence can be used to promote broad-based growth-enhancing or narrow particularistic growth-destroying policies. The question of whether foreign direct investment is on net good for growth has proven impossible to definitively answer to both dependency and modernization theorists. My aim is to develop an interdisciplinary framework that addresses the question: under what conditions is foreign direct investment good for the provision of public goods?

I begin with a vision of the process of economic growth that acknowledges the importance of factor inputs but emphasizes the importance of the opportunity cost of those factors to those that possess them. That is, the fundamental constraint on growth is not the lack of labor, capital, land or knowledge but rather the rational choices by the owners of these factors of production to deploy these resources in manners that are growth enhancing. If the revenue stream on future earnings from a capital investment is too uncertain, investment is made in another country, postponed or altered to shorten the payback period or otherwise hedge against future uncertainty. If the revenue stream on future earnings from an investment in generic human capital is too uncertain, time is instead invested in securing a steady revenue stream in the customs or tax assessor's office or in the pay of a chieftan, oligarch or other rent seeker. If the revenue stream on future earnings from an investment in increasing the productivity of land is too uncertain, that land is left fallow or used to support subsistence agriculture. If the revenue stream on investments in new technology is too uncertain, human and

physical capital are instead deployed to reengineer, counterfeit or engineer new scams and schemes to extract wealth from others. In each case, the allocation of a potentially productive factor of production is distorted at the margin to achieve a more certain short-term payoff with negative long-term consequences for a nation's potential growth.

We have learned a great deal of the ingredients of the recipe that improves the incentives for resource allocation though any model will, given the complexity of the system, always be incomplete. Macroeconomic stability and fiscal prudence minimize uncertainty about the value of a unit of currency today versus at some point in the future. Checks and balances on political leaders including formal veto players, independent and efficient judicial systems and, perhaps most importantly, a free and competitive media, restrain arbitrary and capricious policy changes that benefit political leaders themselves or their constituents at the expense of investors. Transparent, well-regulated and efficient capital markets including clearly defined and defensible property rights directly facilitate the management of risk by owners of the factors of production. Widely shared beliefs both that investment can transform the lives of our children for the better and that we owe it to them to invest current factors of production in a sustainable manner are also likely key components of the growth puzzle.

While we are well aware of these ingredients our recipes for growth lack a clear understanding of the process by which they are assembled and combined to generate sustainable growth. In particular, we lack clear insight into how the recipe must be altered for countries beginning with different endowments, first-order needs, histories and challenges. The ingredients themselves are not easily formed at least not in the deep functional sense necessary to have the appropriate impact on investment. One can create a stock market but that is a far cry from a transparent, well-regulated and efficient financial market. One can create a court but how will it function and whom will it serve? One

can authorize a free media but how will it evolve and how will influential political and economic actors react?

In the midst of all of this uncertainty about the underlying causal mechanism that generates economic growth, I seek to isolate the marginal impact of a change in foreign direct investment *ceteris paribus*. As Dani Rodrik and Arvind Subramanian (2008) point out in their recent working paper 'Why Did Financial Globalization Disappoint', the fundamental constraint faced by the vast majority of countries is not a lack of capital. The arrival of foreign direct investment does not therefore have a direct impact on the supply of capital and thereby the growth rate. If foreign direct investment flows enhance growth it is indirectly through the knowledge and technology embedded within the capital flow that then diffuses in the vertical supply chain and, potentially, horizontally as well. Managerial knowhow diffuses from the employees of the foreign subsidiary to their competitors and to their future employers. The export orientation of many such investments or at least the international experience of the investor introduces a greater awareness of and sensitivity to international standards, trends and competition. These indirect economic benefits are at the heart of the economic argument for a beneficial effect of foreign direct investment on growth.

Now consider the implications of expanding the domain of inquiry beyond the economic sphere to include the political and social domains. The beneficial role of foreign direct investment could be enhanced if the same awareness of and sensitivity to international standards, trends and competition promotes favorable policy changes that increase the efficient allocation of resources in the society. While some of these benefits would be captured by the foreign investor, many of them would diffuse broadly to every factor owner who would improve the allocation of their resources between the various potential uses today and investment in the expansion of output in the future. Such a positive policy "spillover" from foreign direct investment would dramatically enhance their attractiveness as, unlike

economic spillovers which diffuse over a lengthy time period and narrowly within a supply chain, among competitors or managerial ranks, policy spillovers can be both more immediate and much broader in their impact.

It is by no means clear, however, that foreign investors necessarily have an incentive to pressure for such broad-based favorable policy innovations. Instead of lobbying for policies that increase the efficiency in the tax code, legal system, financial system or media, they could use their economic, political and social resources instead to pressure for narrow tax benefits or breaks, exemptions from the legal system, special or privileged financial status and control over the media (Desbordes & Vauday, 2007). Even more cynically, the investors could form alliances with corrupt political or economic interests to suppress labor, seize land and expropriate capital or the returns thereto.² I argue that it is this choice between broad-based growth-enhancing policy innovation and particularistic policy and power which determines the net effect of foreign direct investment on growth. The economic spillovers are real and can be important in the long-run but they are likely dominated by the much broader-based and immediate impact of the policy choices made by international investors.

Under what conditions will foreign investors lobby for broad-based growth-enhancing policy innovations as opposed to narrow particularistic rent seeking ones? To the extent that political power is more broadly held and accountability of that power is similarly broad-based, one would expect a greater portion of public expenditure to be focused on broad-based public goods (Acemoglu & Robinson, 2006, Lake & Baum, 2001). Building on this straightforward logic, a growing body of empirical work links broader based representative political systems that provide more accountability and voice (often using democracy as a proxy) to be positively correlated with life expectancy (Besley & Kudamatsu, 2006, Lake & Baum, 2001), human capital formation (Ansell, 2008, Avelino, Brown, & Hunter, 2005, Lake & Baum,

² See for example Behar's (2008) investigation of the practices of Chinese investors in Africa.

2001, Stasavage, 2005), safe water access (Deacon, 2009, Lake & Baum, 2001), immunization (Lake & Baum, 2001), transportation infrastructure (Deacon, 2009) and pollution abatement (Deacon, 2009).

I extend this existing argument and link it to the dependency vs. modernization debate by considering not only the concentration of political power but also that of foreign direct investors. Now, in the worst case scenario, a single foreign investor or group of investors from one country constitute a substantial portion of domestic output and interface with a government lacking strong checks and balances. Here, the incentives of the foreign investors to use their influence to secure a particularistic policy that benefits them alone are enabled by a government with the capacity to provide the same. The concentrated nature of foreign investment facilitates the identification of preferred particularistic policies and the overcoming of any collective action problem in seeking its implementation. The relatively unconstrained political actors choosing which particularistic demands to accommodate are naturally drawn to the relatively large multinational that may offer them, in turn, particularistic benefits of their own.

Were the host country's political actors to be more constrained by checks and balances, the same foreign investor would have less capacity to effect change. The same demand could be met by debate among political actors representing different interests or with different values. The media might learn of any illicit quid pro quos. Judicial investigations or regulatory hearings might ensue. In short, whereas the demand for particularistic policies may be relatively similar (albeit potentially smaller due to the risks of media transparency and judicial or regulatory investigations into any malfeasance), the capacity to provide the policies is likely substantively reduced.

Where foreign investors are more diffuse across industries, home countries and number, the set of particularistic benefits that they can agree upon are narrower in scope. Their interests are more divergent and a policy that benefits one investor the most is unlikely to be a top priority of others and

could even cause them harm. As they seek to reach agreement on a set of policies that they would likely jointly demand, they are more likely to settle upon policies of broad interest. This tendency is reinforced by the greater collective action problem that they face in implementing their influence strategy. One means of overcoming this problem is to push for even more broad-interest policies so as to form an alliance with domestic firms in their campaign to influence the domestic policymaking process. While it is of course possible that such broad foreign business interests or domestic and foreign business interests are still redistributive as opposed to growth-enhancing in nature, I believe that the broader and more diffuse the coalition the harder it will be for them to sustain particularistic redistributive policies.

Illustrative Caselets

I present two pairs of illustrative caselets not to prove the theoretical argument sketched above but rather supplement the theoretical discourse, which sacrifices nuance and detail for the sake of parsimony, with a greater sense of depth and plausibility as well as a better understanding of the transmission mechanisms at play. One must look to either a fuller comparative case design or the econometric analysis that follows for more definitive analysis. Here, I present merely an introduction into efforts by U.S. investors to alter policy regimes in their favor in two comparable Latin American countries (Guatemala and Peru) where investor concentration differed markedly as well as a pair of more macro-level caselets examining the role of foreign investors in the resource curse of certain African and Central Asian petro-states as compared to the more positive role played by a diverse set of foreign investors in other more diverse transition economies.

The first caselet conforms to the theoretical arguments of the dependency school. They involve the investments by United Fruit Company (later Chiquita) in Guatemala as recounted in Bucheli (2008). As a growing populist movement in Guatemala sought to redistribute rents from shareholders of United Fruit to the broader population in the 1940s, United Fruit fought back with the full scope of power at its

disposal as the dominant foreign investor in Guatemala backed by the powerful United States government. When Guatemala sought to diversify its export and foreign investment base to counteract the domestic power of the company, United Fruit unilaterally reduced exports from Guatemala by 80% in an explicitly punitive measure to demonstrate their power over the local economy and the dependence of its government upon them. United Fruit also successfully lobbied for a termination of World Bank loan disbursements to Guatemala as well as a termination of U.S. military aid to the country. All of these measures had a clear and strong negative effect on the local economy. As tensions escalated, the local population voted into office Jacobo Arbenz who campaigned upon and sought to implement a massive land redistribution program that would address long-standing inequalities in Guatemalan society. After taking their case against this program to the Guatemalan Supreme Court and losing, United Fruit made the case to the Eisenhower administration and the American people that a communist beachhead was being established less than a thousand miles from New Orleans. A successful covert CIA operation ensued in which Colonel Castillo Armas deposed Arbenz, reversed the land reform, abolished taxes on foreign investors and restored Guatemala's alliance with the United States. In the following fifty years, as Guatemala's relative advantage in banana's declined and United Fruit's market power declined, Guatemala suffered through decades of economic decline and civil war. While it is not possible to link these directly to the actions of United Fruit, the support for the reactionary Armas regime and its suppression of local labor contributed to among the worst economic and social dynamics in the Americas over the following fifty years. In a classic detailed historical case study Charles Kepner and Henry Soothill concluded that

“[This] powerful company has throttled competitors, dominated governments, manacled railroads, ruined planters, choked cooperatives, domineered over workers, fought organized labor, and exploited consumers. Such usage of power by a corporation of a strongly

industrialized nation in relatively weak foreign countries constitutes a variety of economic imperialism.” (Kepner & Soothill, 1935) quoted in Bucheli (2008)

Lipson (1985) recounts a very different outcome in Peru -- a superficially similar Latin American country at a similar stage of development -- when a conflict between the Peruvian government and International Petroleum Corporation (a subsidiary of Standard Oil of New Jersey, later Exxon) culminated in an outright expropriation of assets. Standard Oil initially sought redress from the United States government in the form of the imposition of punitive sanctions as specified in the Hickenlooper amendment to the Foreign Assistance Act of 1962 which required the cessation of all foreign assistance by the United States government to a country that expropriated the assets of a U.S. corporation without adequate compensation or due process. Standard Oil Corporation and the U.S. government, however, relented in their efforts under the countervailing lobby of other multinational corporations in Peru who in coalition with Peruvian lawyers, businessmen and public officials arranged a meeting between President Velasco and U.S. special envoy John Irwin that facilitated a compromise amenable to both sides. The intervention of the peer American multinational was motivated by their concern that the application of the Hickenlooper Amendment would create anti-American sentiment in Peru that would negatively impact their operations and collectively harm American interests. While Peru remains among the poorest and underdeveloped countries in the Americas and faced its own internal conflict and challenges in the ensuing decades, it does not appear that foreign investors can be as directly tied to the trigger events in those struggles and, at least in this one instance, the diversity of foreign investors helped restrain potentially deleterious U.S. government policies.

The vast literature examining the resource curse particularly the segment focused on the political dimensions of the problem and the role of multinational corporations in that process is a more macro-level example of the potential negative consequences of concentrated economic and political

power. Terry Karl (1997) highlights three political deficits that arise in states that developed alongside the presence of substantial oil reserves: information, monitoring and participation. Michael Ross (1999) attributes these shortcomings to the easy money available from taxing oil companies which lowers the incentive to look elsewhere, and the demand for and ease of patronage spending which can be strategically used to undercut group formation or even repress group formation. State capacity is eroded or does not develop because it is not in the mutual interest of the political leadership who can raise revenue by taxing a few companies (and abscond with some portion of that revenue) or multinational oil companies who are justifiably concerned that efforts to increase transparency, checks and balances, oversight or political participation will raise the ire of the central political actors upon whom they depend for access to oil reserves. Opposing viewpoints or reformers are either bought off or repressed. Political systems in oil-rich states thus lack sufficient information on other developments, opportunities and risks in their economy, the ability to monitor economic activity including corruption by insiders and a reliable mechanism for external stakeholders to express voice. As a result, there is a greater tendency for governments to implement policies that subvert or encumber growth outside of the favored oil sector or, at least, to fail to implement policies such as investments in public goods or countercyclical fiscal and monetary policies that could enable or facilitate such growth (Sachs & Warner, 2001). By shifting attention to the mechanisms by which the concentrated economic power influence the political process, these authors offer an opportunity to sidestep the more problematic assertions that the presence of natural resources per se reduces growth (Brunnschweiler & Bulte, 2008) or undermines democracy (Haber & Menaldo, 2008) in a manner consistent with the arguments I have developed above.

A more positive assessment on the role of foreign investors in transition economies is reached in Charles Paul Lewis' (2005) account *How the East Was Won: The Impact of Multinational Companies on Eastern Europe and the Former Soviet Union*

Multinational companies...played a direct role in changing attitudes at lower levels of bureaucracy, as a result of their daily interaction with officials, and their long slog to improve laws that were drafted in ignorance or haste. (Cited in Malesky (2008))

In a study that seeks to identify this positive effect using an instrumental variable approach, Malesky (2008) first reviews case study and anecdotal evidence regarding the underlying causal mechanisms that he seeks to identify econometrically. He draws upon the analysis of Hewko (2002) who outlines and provides anecdotal evidence of the role of multinational corporations in providing information on experiences in other countries to reformist governments, directly lobbying for reform often in conjunction with local investors and, if these demands are not met, curtailing their operations or, ultimately exiting the country. He notes the examples of Skoda's lobbying for a privatization law and a law regulating foreign direct investment in the Czech Republic (Lewis, 2005) as well as the alliance between foreign investors and domestic firms and regional governments to promote competition-enhancing reforms in Vietnam (Gillespie, 2006). Note that in contrast to the petro-states discussed above, the countries considered by Malesky (2008) and, in particular, by the qualitative studies that he cites received foreign direct investment from a wide range of home country investors in numerous industries. Indeed, Malesky (2008) notes that his econometric evidence highlighting the beneficial effect of foreign direct investment on economic reform is identified based on the positive and exogenous effect of exchange rate depreciation on foreign direct investment inflow which only holds for investments in manufacturing and services not natural resources and infrastructure. The positive results he obtains and the examples he cites are thus characterized by heterogeneous economic power which, consistent with the theory I develop here, generates growth-enhancing reforms.³

³ This difference also precludes the use of exogenous exchange rate depreciation as an instrument in the current study as its efficacy as an instrument would vary according to the concentrations of economic and political power.

Empirical Analysis

Data. My sample is an unbalanced panel that includes as many as 181 countries over the period 1961 to 2006. Summary statistics and a correlation matrix are provided in Table 2.

Dependent variables. I choose as my dependent variables a set of indicators of public good provision that are available for the widest set of countries over the longest time periods. These include mortality rates for children under age 1 and age 5 as well as primary and secondary educational attainment rates. I source this data from Barro & Lee (2001) and World Development Indicators (2008).

Concentration of Political and Economic Power. Extending the logic of Kentor & Boswell (2003), who operationalize dependence using the share of foreign direct investment from the largest home country, I construct a foreign direct investment concentration index by calculating the five-year average of the Herfindahl Index for each country-year of inward foreign direct investment stock. I draw the data on the US dollar value of dyadic FDI from the OECD and UNCTAD which are the two sources used by all extant studies of dyadic FDI.⁴ My measure of the concentration of domestic political power is calculated as one minus the level of political constraints for the host country (Henisz, 2000). As the number of formal or partisan checks and balances in the national political system increases, the level of concentration of political power falls and vice versa.

The countries that have the highest levels of concentration of both political and economic power include Gambia, Haiti, Somalia, Comoros, Iraq, North Korea, Bhutan and Maldives followed by

⁴ Similar to Ingram & Alcacer (2006), I seek to maximize the power of our statistical analysis by using the largest possible sample size represented within these two datasets. I rely where possible on the reported change in the dyadic outward stock of FDI by the investing country as reported in UNCTAD (the most comprehensive source). Where this data is unavailable, however, I first check as to whether the OECD reports the missing figure and, if so, merge the OECD data into the UNCTAD dataset. If there is no reported figure by either organization, I then see if it is possible to impute it with the change in the dyadic inward stock of FDI reported by the recipient country either by UNCTAD or the OECD. Using this approach, I was able to increase the percentage of total global FDI (as reported by UNCTAD) that is included within my dyadic dataset from 56.1% to 65.4%. The correlations among common dyadic observations of these different data sources ranges from 0.88 to 0.99.

Gabon, Syria, Equatorial Guinea, Cameroon, Swaziland, Turkmenistan, Congo and Sierra Leone. By contrast, Switzerland, Germany, Belgium, Italy and Portugal had the lowest levels of concentration in both indexes followed by Latvia, Denmark, Norway, France, Slovenia, Lithuania, Poland, Sweden, Cyprus, Tanzania, South Korea and Hungary. Substantial variation exists across income levels and political systems with such relatively poor countries as Tanzania, Uganda, Zambia and Malawi scoring low on concentrated power and many middle and upper middle income Middle Eastern and Central Asian countries scoring relatively high. Similarly, democracies such as Maldives, Jamaica, Seychelles, Lebanon, Bosnia and Brunei scored high on concentrated power whereas autocracies such as Singapore, Uganda, Egypt, Vietnam, Morocco, Pakistan, Azerbaijan and Kenya scored low.

Income. In order to maximize the country coverage of my analysis, I employ a highly parsimonious specification controlling for only the log of per capita income in the base regression. The coefficient of interest is the estimated coefficient on income as it varies according to the level of concentration of economic and political power. The theoretical arguments presented above suggest that the efficiency of a country in translating its economic resources into the provision of public goods will be higher when political and economic power are diffused as opposed to concentrated. I therefore expect to observe that the relationship between income and public goods (health care systems that reduce mortality rates or increase educational attainment) will be highest where the concentration of political and economic power are both low. By contrast where the concentration of political and economic power are both high, the beneficial effect of higher levels of income on these public goods will be attenuated or, perhaps, even insignificant.

Additional Independent Variables. I reran the analysis including a set of additional control variables including the level of public expenditure on health (for infant mortality⁵), population density,

⁵ Unfortunately, similarly comprehensive data on educational expenditure is not available.

inflation rates and openness to trade. The inclusion of these variables substantially reduces the sample size due to missing data.

Methods. I pursue cross-section time series analysis on an unbalanced panel of as many as 181 countries over as many as forty-four years (a total of 5831 country-year observations). Given the endogeneity of the explanatory variables, I follow Carkovic and Levine (2005) and use a Generalized-Method-of-Moments estimator developed for dynamic panel data (Arellano & Bond, 1991) that “combines in a system the regression in differences with the regression in levels” (Arellano & Bover, 1995, Blundell, Bond, & Windmeijer, 2000).

Results. The left panel of Table 2 reports the coefficient estimate on the log of per capita income on infant mortality for each of nine subsamples which vary in their level of concentration of political power (i.e., below the mean, full sample and above the mean) and economic power (i.e., below the mean, full sample and above the mean). The left panel of Table 3 replicates this for the log of per capita income on the average years of education. Note that in each case, the link between higher levels of income and public good provision was largest in the top-left where the concentration of economic and political power was lowest and declined as you move down or to the right. The right panel of these Tables reports the same coefficient estimates for specifications that include the slate of control variables. The same basic pattern appears. Furthermore, reviewing the full regression results (see bottom panels of Tables 3 and 4) reveals that not only does this pattern manifest itself for the coefficient estimate on income but it also appears in the coefficient estimates for public expenditure on health as well as, albeit to a lesser extent, on the coefficient estimates for openness. These results provide further support for the somewhat cumbersome modeling approach of examining coefficient estimates in separate subsamples rather than pooling the data and exploring complex interaction terms.

The economic significance of these effects is striking with the elasticity of public good provision with respect to income increasing as much as an order of magnitude moving from subsamples of countries above to below the mean in both concentrations of political and economic power. In the parsimonious specification (i.e., including only the log of income as an independent variable), a 10% increase in income for countries with below the mean levels of concentration of political and economic power leads to a predicted decrease of infant mortality of 1.95%. Holding concentration of political power constant but increasing the concentration of economic power to a level above the mean reduces the predicted gain to 1.18%. Similarly, for countries with low levels of concentration of economic power but above the mean levels of concentration of political power the predicted improvement is 0.74%. Finally, the same increase in income for a country with above the mean levels of both concentration of political and economic power leads to only a .16% decrease in infant mortality. In the specification that includes the full set of control variables, the predicted differences across these subsamples are even larger.

Similarly, a 10% increase in income for countries with below the mean levels of concentration of political and economic power leads to a predicted increase in the average years of schooling of 0.51%. For countries with low levels of concentration of political power but high levels of concentration of economic power, this gain falls to 0.14%. For countries with high levels of concentration of political power but low levels of concentration of economic power, the predicted improvement in schooling is 0.28%. By contrast the same increase in income for a country with above the mean levels of concentration of both political and economic power leads to no predicted change in education. In the specification that includes the full set of control variables the results are largely comparable.

Robustness. In robustness analysis, I explored the robustness of the results to the use of panel-corrected standard errors and population averaged panel data models for both the parsimonious and richer specifications. The results were highly consistent across these various estimators.

Discussion

The empirical evidence is consistent with the argument that the confluence of concentrated economic and political power appears to suppress the provision of public goods. This result complements rather than conflicts with extant research in both the dependency school and in modernization by highlighting a critical contingency which alters the impact of foreign direct investment on the domestic economy.

First, whereas the dependency literature initially sought to identify the negative effects of foreign direct investment, it has more recently after the legitimate critiques of Kobrin (1976) and Firebaugh (1996, 1992), focused on identifying the conditions under which foreign direct investment would have a negative effect given the underlying causal mechanisms they have always relied upon in formulating this argument. The key construct in this second generation of dependency analysis is the concentration of foreign direct investment. By moving from a simple measure of the share of foreign direct investment held by the largest home country to a more refined Herfindahl concentration index the results presented here are entirely consistent with those of Kentor & Boswell (2003) albeit using a more sophisticated dynamic panel estimator that better addresses concerns of endogeneity than the lag structures employed in that analysis.

Turning to the economic literature's recent attempts to identify the conditions under which foreign direct investment should have positive spillovers, the observed moderators of financial sector development, human capital development and income levels are all the result of *ex ante* investments which would not be rational in the absence of some degree of policy stability in the future. Checks and

balances on political discretion or a lack of concentration of political power can thus be seen as an input into the decision to invest in a sophisticated financial sector and human capital which are inputs into more rapid economic growth. Once again, the results presented here complement the literature in economics that has sought to demonstrate the conditions under which foreign direct investment promotes growth albeit using panel data techniques as opposed to cross-sectional analysis.

The notion that power can undermine the benefits of markets is well accepted. In this analysis, I seek to extend that logic to consider the negative ramifications of concentrated economic and political power. Just as a monopolist or oligopolist undersupplies a good or service so as to capture for itself a greater share of rents, so too can powerful foreign investors use their political influence to restrict the provision of public goods so as to capture for themselves a greater share of rents. Unchecked by competitive forces, foreign investors with concentrated economic power enabled by a domestic political system that concentrates political power, may leave a local population worse off despite the benefits of any economic spillovers. By contrast, a diverse base of foreign investors lacking such concentrated economic power are more likely to promote public good provision expanding upon any benefits created by the virtue of economic spillovers.

The normative implications of this relationship are less clear. The potential benefits of promoting a diverse base of foreign direct investment must be set against the likelihood that such incentives will be targeted at the “wrong” additional industries which will require ongoing and costly public intervention to maintain their viability as well as the fact that foreign investment in industries not part of a pre-existing cluster are likely to generate fewer economic spillovers (Porter, 2000). From an investor standpoint, it is not clear that the costs of overcoming the collective action problem to mobilize for the provision of public goods are justified by the long-term private benefits offered by those public goods particularly when set against the private benefits that are lost. Further research on these

tradeoffs and the dynamics through which a change in economic or political concentration can alter the growth path of nations is a topic meriting substantial additional research. Such analysis could occur at the country-level as is the case here or at an industry-level where the adoption of a new technology or market penetration could be examined in the face of changes in the industrial and political or regulatory structure of the industry. The findings here will hopefully serve as further stimuli to expand analysis in international political economy beyond the already complex interplay of economic efficiency and political rent seeking to incorporate the even more complex mechanisms by which economic power can reinforce that rent seeking or, more hopefully, how changes in economic power can undermine it.

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Table 2: Coefficient Estimate for Log Per Capita Income on Log Under Age 1 Infant Mortality

Specification Including Log(Per Capita Income) and Constant					Specification Including Log(Per Capita Income), Constant and Controls				
<i>Concentration of Foreign Direct Investment</i>					<i>Concentration of Foreign Direct Investment</i>				
	<u>Below Mean</u>	<u>Full Sample</u>	<u>Above Mean</u>			<u>Below Mean</u>	<u>Full Sample</u>	<u>Above Mean</u>	
<i>Concentration of Political Power</i>	<u>Below Mean</u>	-0.195*** (0.0264)	-0.0742*** (0.0140)	-0.118*** (0.0257)	<i>Concentration of Political Power</i>	<u>Below Mean</u>	-0.332*** (0.0450)	-0.139*** (0.0300)	-0.0749** (0.0361)
	<u>Full Sample</u>	-0.155*** (0.0171)	-0.0181*** (0.00499)	-0.0356*** (0.00829)		<u>Full Sample</u>	-0.283*** (0.0335)	-0.0939*** (0.0176)	-0.0545*** (0.0168)
	<u>Above Mean</u>	-0.0737*** (0.0151)	-0.0142*** (0.00418)	-0.0162*** (0.00515)		<u>Above Mean</u>	-0.0767*** (0.0197)	-0.0360*** (0.00941)	-0.0184* (0.0101)

Table 3: Coefficient Estimate for Log Per Capita Income on Log Average Years of Schooling

Specification Including Log(Per Capita Income) and Constant					Specification Including Log(Per Capita Income), Constant and Controls				
<i>Concentration of Foreign Direct Investment</i>					<i>Concentration of Foreign Direct Investment</i>				
	<u>Below Mean</u>	<u>Full Sample</u>	<u>Above Mean</u>			<u>Below Mean</u>	<u>Full Sample</u>	<u>Above Mean</u>	
<i>Concentration of Political Power</i>	<u>Below Mean</u>	0.0512*** (0.00360)	0.0613*** (0.00230)	0.0143** (0.00570)	<i>Concentration of Political Power</i>	<u>Below Mean</u>	0.0494*** (0.00409)	0.0435*** (0.00270)	-0.000596 (0.00600)
	<u>Full Sample</u>	0.0540*** (0.00303)	0.0146*** (0.00124)	0.0101** (0.00494)		<u>Full Sample</u>	0.0529*** (0.00429)	0.0141*** (0.00234)	0.00926 (0.00631)
	<u>Above Mean</u>	0.0276*** (0.00599)	0.0135*** (0.00388)	0.000448 (0.00682)		<u>Above Mean</u>	0.0394*** (0.00965)	0.0203*** (0.00585)	0.00252 (0.00906)

Note: Coefficient estimates for constant and controls not reported. Arellano-Bond dynamic panel-data estimator. *** p<0.01, ** p<0.05, * p<0.1

Table 4: Log Under Age 1 Infant Mortality

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>Political/Economic Concentration</i>	Low/Low	Low/All	Low/High	All/Low	All/All	All/High	High/Low	High/All	High/High
Lagged Dependent Variable	0.850*** (0.0151)	0.940*** (0.00845)	0.834*** (0.0183)	0.862*** (0.0118)	0.989*** (0.00249)	0.944*** (0.00586)	0.898*** (0.0166)	0.978*** (0.00262)	0.966*** (0.00387)
Log Real Per Capita Income	-0.195*** (0.0264)	-0.0742*** (0.0140)	-0.118*** (0.0257)	-0.155*** (0.0171)	-0.0181*** (0.00499)	-0.0356*** (0.00829)	-0.0737*** (0.0151)	-0.0142*** (0.00418)	-0.0162*** (0.00515)
Constant	2.154*** (0.274)	0.803*** (0.146)	1.539*** (0.259)	1.763*** (0.180)	0.158*** (0.0492)	0.478*** (0.0764)	0.979*** (0.174)	0.174*** (0.0373)	0.242*** (0.0446)
Observations	1447	2540	1093	2364	5831	3467	917	3291	2374
Number of Countries	113	164	148	160	181	178	122	150	138
	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
<i>Political/Economic Concentration</i>	Low/Low	Low/All	Low/High	All/Low	All/All	All/High	High/Low	High/All	High/High
Lagged Dependent Variable	0.624*** (0.0322)	0.783*** (0.0222)	0.637*** (0.0400)	0.656*** (0.0267)	0.875*** (0.0135)	0.841*** (0.0193)	0.853*** (0.0273)	0.931*** (0.00915)	0.968*** (0.0123)
Log Real Per Capita Income	-0.332*** (0.0450)	-0.139*** (0.0300)	-0.0749** (0.0361)	-0.283*** (0.0335)	-0.0939*** (0.0176)	-0.0545*** (0.0168)	-0.0767*** (0.0197)	-0.0360*** (0.00941)	-0.0184* (0.0101)
Health Expenditures/GDP	-0.0129*** (0.00487)	-0.00937*** (0.00349)	-0.00427 (0.00369)	-0.00727** (0.00346)	-0.00492** (0.00209)	-0.00241 (0.00170)	0.000612 (0.00201)	-0.000376 (0.00104)	-0.000247 (0.00104)
Population Density	-7.12e-05 (0.000314)	-0.000460* (0.000275)	-0.00354*** (0.000612)	-0.000274 (0.000252)	-0.000701** (0.000117)	-0.000754** (0.000104)	-0.000643** (0.000256)	-0.000347** (5.51e-05)	-0.000273** (5.06e-05)
Inflation	0.000159*** (5.70e-05)	0.000191*** (5.30e-05)	0.000147*** (4.85e-05)	0.000116*** (4.24e-05)	1.36e-05 (8.84e-06)	7.03e-06 (5.28e-06)	4.95e-06 (3.03e-05)	4.09e-06 (3.18e-06)	1.79e-06 (2.64e-06)
Openness (Trade/GDP)	9.57e-06 (0.000312)	-0.000105 (0.000216)	-0.000500** (0.000241)	-0.000156 (0.000233)	1.22e-06 (0.000129)	-6.30e-05 (0.000105)	-0.000273* (0.000147)	-0.000124* (6.41e-05)	-2.66e-05 (6.08e-05)
Constant	4.032*** (0.463)	1.942*** (0.306)	2.265*** (0.382)	3.537*** (0.350)	1.290*** (0.181)	1.107*** (0.175)	1.225*** (0.242)	0.577*** (0.0985)	0.282*** (0.108)
Observations	566	886	320	797	1569	772	231	683	452
Number of Countries	103	154	118	137	170	144	69	103	87

Note: Arellano-Bond dynamic panel-data estimator. *** p<0.01, ** p<0.05, * p<0.1

Table 5: Log Average Years of Schooling

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>Political/Economic Concentration</i>	Low/Low	Low/All	Low/High	All/Low	All/All	All/High	High/Low	High/All	High/High
Lagged Dependent Variable	0.894***	0.873***	0.901***	0.918***	0.957***	0.940***	0.958***	0.964***	0.949***
	(0.00679)	(0.00377)	(0.00687)	(0.00448)	(0.000907)	(0.00214)	(0.00731)	(0.00180)	(0.00289)
Log Real Per Capita Income	0.0512***	0.0613***	0.0143**	0.0540***	0.0146***	0.0101**	0.0276***	0.0135***	0.000448
	(0.00360)	(0.00230)	(0.00570)	(0.00303)	(0.00124)	(0.00494)	(0.00599)	(0.00388)	(0.00682)
Constant	-0.259***	-0.313***	0.0504	-0.332***	-0.0446***	0.0152	-0.165***	-0.0453	0.0757
	(0.0264)	(0.0160)	(0.0445)	(0.0232)	(0.00987)	(0.0394)	(0.0456)	(0.0303)	(0.0527)
Observations	1096	1932	836	1742	3839	2097	646	1907	1261
Number of Countries	82	94	85	105	111	107	74	82	76

	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
<i>Political/Economic Concentration</i>	Low/Low	Low/All	Low/High	All/Low	All/All	All/High	High/Low	High/All	High/High
Lagged Dependent Variable	0.844***	0.856***	0.870***	0.915***	0.958***	0.939***	1.009***	0.971***	0.951***
	(0.00767)	(0.00406)	(0.00768)	(0.00630)	(0.00152)	(0.00264)	(0.0114)	(0.00265)	(0.00350)
Log Real Per Capita Income	0.0494***	0.0435***	-0.000596	0.0529***	0.0141***	0.00926	0.0394***	0.0203***	0.00252
	(0.00409)	(0.00270)	(0.00600)	(0.00429)	(0.00234)	(0.00631)	(0.00965)	(0.00585)	(0.00906)
Population Density	0.000342***	0.000478***	0.000812***	0.000128*	-2.59e-05	5.75e-05	-0.000242	-8.85e-05*	-1.42e-05
	(6.74e-05)	(4.07e-05)	(9.17e-05)	(7.07e-05)	(2.82e-05)	(5.17e-05)	(0.000160)	(5.06e-05)	(6.27e-05)
Inflation	-5.56e-07	1.20e-06**	-2.22e-07	-4.03e-07	5.54e-07	-2.32e-08	2.91e-07	5.00e-07	1.51e-07
	(5.42e-07)	(4.73e-07)	(6.50e-07)	(7.35e-07)	(5.32e-07)	(7.08e-07)	(2.26e-06)	(8.27e-07)	(9.81e-07)
Openness (Trade/GDP)	-7.56e-05**	3.64e-05	0.000227***	-3.17e-06	0.000128***	5.24e-05	8.80e-05	2.63e-05	-8.53e-05
	(3.69e-05)	(2.80e-05)	(4.97e-05)	(4.30e-05)	(3.20e-05)	(5.41e-05)	(9.23e-05)	(5.66e-05)	(7.62e-05)
Constant	-0.186***	-0.183***	0.117**	-0.330***	-0.0469***	0.0130	-0.282***	-0.0958**	0.0635
	(0.0293)	(0.0188)	(0.0463)	(0.0310)	(0.0175)	(0.0489)	(0.0711)	(0.0437)	(0.0680)
Observations	1033	1841	808	1516	3384	1868	483	1543	1060
Number of Countries	81	93	83	101	108	103	64	77	72

Note: Arellano-Bond dynamic panel-data estimator. *** p<0.01, ** p<0.05, * p<0.1