# Concentrated Power, Foreign Direct Investment and Economic Growth

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ABSTRACT

The highly concentrated nature and significant size of foreign investors relative to other sources of capital at the disposition of host country governments can lead to influence over the policymaking process which generates or sustains policies that benefit the interest for foreign investors at the expense of broad-based economic. Such outcomes are, however, by no means a necessary result of foreign direct investment inflows. The benefits 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 across industries, home countries and firms than when the same magnitude of flows are more concentrated. The question is not whether the economic benefits of foreign direct investment trump the costs of dependency but how often. In an empirical analysis examining the impact of concentration of FDI on economic growth in countries with varying degrees of concentration of political power, I identify the contingent effect of FDI on growth based on the degree of concentration of economic and political power.

This paper adds to the growing chorus of challenges to the conventional wisdom that financial sector liberalization is necessarily beneficial for economic growth. Even some of the most stalwart defenders of financial liberalization will concede that some prudential capital controls may well be warranted under certain circumstances (Demirguc-Kunt & Detragiache, 1999). The scale and scope of the qualifications regarding the benefits of unfettered financial deregulation will only grow larger in the wake of the 2008 financial crisis. Despite this shift in attitudes towards financial liberalization more generally, attitudes towards inflows of foreign direct investment remain significantly more positive -- at least among economists. The same authors who critique unfettered financial liberalization note the real impact of foreign direct investment in terms of technology transfer, job creation, capacity building and integration into the international economy (Rodrik & Subramanian, 2008). A related if less prominent debate has, however, proceeded regarding this claim with the majority of macroeconomic studies finding a positive effect of foreign direct investment on growth challenged by the majority of microeconomic studies showing mixed or contingent results on productivity spillovers. Recent efforts to resolve this tension by economists have emphasized the importance of the sector of investment, the absorptive capacity of the financial system as well as the potential endogeneity of foreign direct investment flows. This paper adds another related contingency drawn from the realm of political economy as opposed to financial economics or development that withstands the use of dynamic panel data estimators to control for endogeneity.

Foreign direct investment flows are more likely to be heavily concentrated across the distribution of industries, originating countries and firms than are portfolio flows of capital. As has long been argued by political scientists and sociologists in the dependency literature, this concentration of economic interests can lead to influence over the policymaking process which generates or sustains policies that benefit the interest for foreign investors at the expense of broad-based economic growth (e.g., the suppression of labor and political rights, the creation of numerous exemptions and loopholes

to the tax code, the focusing of public goods on the needs of the large foreign investor as opposed to their smaller domestic (potential) competitors, the focus on political stability as opposed to policy innovations that set the stage for broad middle-class growth). Such outcomes are by no means a necessary result of foreign direct investment inflows. The benefits 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 across industries, home countries and firms than when the same magnitude of flows are more concentrated. The question is not whether the economic benefits of foreign direct investment trump the costs of dependency but how often.

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 link those literatures by highlighting that the net effect of foreign direct investment on development is contingent upon the concentration of that economic influence and the concentration of political influence 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 do in fact promote growth whereas sufficiently concentrated flows can retard it. 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.

**Theory**

  *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, international capital will be relatively unchecked in its pursuit of

cheap factor inputs and in the repatriation of profits from host countries. Specifically, 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 integration into the global economy often proxied by the

ratio of foreign direct investment to gross domestic product will therefore be to increase income

inequality (Bornschier, Chase-Dunn, & Rubinson, 1978, Boswell & Dixon, 1990, Chase-Dunn, 1975, Dixon

& Boswell, 1996, Kentor, 2001, 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 & Robinson, 1989) and, ultimately[1] suppress

the quality of life (London & Williams, 1988, 1990) 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 (Bornschier, Chase-Dunn, & Rubinson, 1978, Gobalet & Diamond, 1979, Jackman,

1982).

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[1] Bornschier, 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.

These findings have, however, been vigorously challenged by Firebaugh (1992, 1996) 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 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.

*International Macroeconomics.* 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. Early empirical work supporting this argument can be found in Kobrin (1976) who demonstrated a complementary role for foreign investors and domestic industrial interests in the process of social liberalization. More recently, the attention has shifted 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).

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).

*An Interdisciplinary Approach.* Dependency theorists and open economy macroeconomists 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. My aim is to develop

an interdisciplinary framework that addresses the question: under what conditions is foreign direct

investment good for growth?

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 defendable 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? While many factors likely influence this process, I will focus on one aspect: the concentration of economic and political power. In the worst case scenario, a single foreign investor or group of investors from one country constitute a substantial

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

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.

**Illustrative Caselets[3]**

       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

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[3] The first pair of caselets draws upon the Master's Thesis of Rhodes Scholar Brett Shaheen at Oxford University.

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. 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.[4]

**Empirical Analysis**

*Data.* My sample is an unbalanced panel that includes 87 countries over the period 1975 to 2005 (see Table 1). Summary statistics and a correlation matrix are provided in Table 2.

*Dependent variable*. My dependent variable is the rate of real per capita economic growth as reported in Gleditsch (2002) who offers a broader scope of country and temporal coverage than extant datasets such as the Penn World Tables or World Development Indicators.

*Foreign Direct Investment*. I examine the impact of foreign direct investment on economic growth by examining the coefficient estimate on the lagged flow of foreign direct investment into a host country as a percentage of its gross domestic product averaged over a five-year period. My interest is not merely in the sign and magnitude of this coefficient estimate but rather whether it varies systematically with the degree of concentration of foreign investor and domestic political power as described above.

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[4] 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.

*Concentration of Political and Economic Power.* First, 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.[5] Next, I multiply this measure of the concentration of foreign investor power by a measure of the concentration of domestic political power. This latter measure 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 resulting index of concentrated power ranges from 0 to 1 with Gambia, Haiti, Somalia, Comoros, Iraq, North Korea, Bhutan and Maldives scoring worst (Foreign Direct Investment stock from only one country into a political system with no formal checks and balances yielding an index score = 1) in the year 2000 and Gabon, Syria, Equatorial Guinea, Cameroon and Swaziland also scoring more than 0.9 and Turkmenistan, Congo and Sierra Leone scoring above 0.8 in that year. By contrast, Switzerland, Germany, Belgium, Italy and Portugal scored the lowest in 2000 with Latvia, Denmark, Norway, France, Slovenia, Lithuania, Poland, Sweden, Cyprus, Tanzania, South Korea and Hungary close behind. 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

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[5] 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.

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.

I test for a differential effect of foreign direct investment on economic growth across different levels of concentrated power by undertaking subsample analysis using varying cutoffs for concentrated power. The theory outlined above predicts that the coefficient estimate should be positive for sufficiently low levels of concentrated power and negative for sufficiently high levels of concentrated power.

*Other Independent Variables*. Following the macroeconomic growth literature, I include measures of the level of per capita income, average years of educational attainment, openness (to trade), government consumption, inflation and private credit (as a ratio of Gross Domestic Product). To maximize the country and temporal coverage of the dataset, I source these variables from Gleditsch (2002), Barro & Lee (2001), World Development Indicators (2008) and Levine, Beck and Demirguc-Kunt (2006).

*Methods*. I pursue cross-section time series analysis on an unbalanced panel of 87 countries over thirty years (a total of 341 five-year panels). 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*. In the full sample regression (see Table 3), the only robust predictors of economic growth are the initial level of income and measures of educational attainment. By contrast, when I restrict the analysis to those countries where the concentration of economic (foreign investor) and

political power is low (i.e., approximately one half of one standard deviation below the sample mean or less), I observe that Foreign Direct Investment and trade openness (weakly) contribute to growth whereas government consumption retards it (see Table 4). By contrast, in the subsample of countries where the concentration of economic and political power is high (i.e., approximately one half of one standard deviation above the mean or more), foreign direct investment is a strong negative predictor of growth (see Table 5). The economic magnitude of these effects are substantial with a doubling of the subsample mean of annual foreign direct investment flows over a five-year period associated with a 4.2 percent predicted increase in the annual real per capita economic growth rate in the subsequent five year period in the low concentration of power subsample as opposed to a 7.3 percent predicted decrease in the annual real per capita economic growth rate in the subsequent five year period in the high concentration of power subsample.

Explorations of interactions between foreign direct investment and either private credit, education or the level of income revealed no significant interaction terms either in the full sample or the high and low concentration of power subsamples with the one exception that the negative effect of foreign direct investment flows in the high foreign investor and political concentration subsamples may vary with income. Specifically, where concentration is high but income is above $8346 per capita, there is no negative relationship between investment flows and real per capital income growth.

**Discussion**

The empirical evidence is consistent with the argument that foreign direct investment like any economic resource can be used for good or ill in a political system. The confluence of concentrated economic and political power appears to be a strong predictor of adverse outcomes. This result complements rather than conflicts with extant research in both the dependency school and in economics examining the welfare implications of foreign direct investment.

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 Firebaugh (1992, 1996), 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 in countries receiving foreign direct investment inflows. 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. Ideally, the diversity of foreign investors would be captured in multiple dimensions beyond nationality including industry concentration. Unfortunately, the lack of sufficient panel data on foreign direct investment inflows by industry precludes such analysis.

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 1: Country-Years Included in Estimating Sample**

| | | | |
|---|---|---|---|
| Algeria | 1990-2000 | Lesotho | 1990-2000 |
| Argentina | 2000 | Libya | 1980-1985 |
| Australia | 1975-2000 | Malawi | 1995-2000 |
| Austria | 1975-2000 | Malaysia | 1975-2000 |
| Bahrain | 1995-2000 | Mali | 2000 |
| Barbados | 1980-2000 | Mauritius | 1990-2000 |
| Belgium | 1980-2000 | Mexico | 1975-2000 |
| Bolivia | 1995-2000 | Nepal | 1995-2000 |
| Botswana | 1995-2000 | Netherlands | 1975-2000 |
| Cameroon | 1980-2000 | New Zealand | 1985-2000 |
| Canada | 1975-2000 | Nicaragua | 2000 |
| Central African Republic | 1995-2000 | Niger | 1985-2000 |
| Chile | 1985-2000 | Norway | 1975-2000 |
| Colombia | 1975-1990 | Pakistan | 1980-2000 |
| Costa Rica | 1975-2000 | Panama | 1990-2000 |
| Cyprus | 1985-2000 | Papua New Guinea | 1985-2000 |
| Denmark | 1975-2000 | Paraguay | 1980-2000 |
| Dominican Republic | 1980-2000 | Peru | 2000 |
| Ecuador | 1975-2000 | Philippines | 1980-2000 |
| Egypt | 1985-2000 | Poland | 2000 |
| El Salvador | 1980-2000 | Portugal | 1980-2000 |
| Fiji | 1990-2000 | Rwanda | 1985-2000 |
| Finland | 1980-2000 | Senegal | 1980-2000 |
| France | 1975-2000 | Sierra Leone | 1985, 2000 |
| Gambia | 1995-2000 | South Africa | 1975-2000 |
| Ghana | 1980-2000 | Spain | 1985-2000 |
| Greece | 1980-2000 | Sri Lanka (Ceylon) | 1980-2000 |
| Guatemala | 1980-2000 | Sudan | 1985-1990 |
| Haiti | 1985-2000 | Swaziland | 1990-2000 |
| Honduras | 1980-2000 | Sweden | 1975-2000 |
| Hungary | 1995-2000 | Switzerland | 1975-2000 |
| Iceland | 1985-2000 | Syria | 1990-2000 |
| India | 1975-2000 | Thailand | 1980-2000 |
| Indonesia | 1995-2000 | Togo | 1985-2000 |
| Iran | 1980, 1990-2000 | Trinidad and Tobago | 1985-2000 |
| Ireland | 1975-2000 | Tunisia | 2000 |
| Israel | 1990-2000 | Turkey | 1995-2000 |
| Italy | 1975-2000 | Uganda | 1995-2000 |
| Jamaica | 1975-2000 | United Kingdom | 1975-2000 |
| Japan | 1975-2000 | Uruguay | 1990-2000 |
| Jordan | 1990-2000 | Venezuela | 1975-2000 |
| Kenya | 1980-2000 | Zambia | 2000 |
| Korea, Republic of | 1985-2000 | Zimbabwe (Rhodesia) | 1990-2000 |
| Kuwait | 1985-1995 | | |

**Table 2: Summary Statistics and Correlations**

| | Growth | Real GDP per capita (log) | Average years of education | Openness: trade/GDP | Government consumption/GDP | Inflation, CPI | Private credit/GDP | FDI/GDP | FDI Concentration | (1 - Political Constraints) | FDI Concentration X (1 - Political Constraints) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| N | 341 | 341 | 341 | 338 | 338 | 340 | 330 | 341 | 341 | 341 | 341 |
| Mean | 0.09 | 8.68 | 5.66 | 66.58 | 15.55 | 12.71 | 0.44 | 0.06 | 0.58 | 0.49 | 0.31 |
| Standard Deviation | 0.14 | 1.04 | 2.74 | 33.00 | 5.52 | 13.60 | 0.34 | 0.11 | 0.30 | 0.70 | 0.30 |
| Minimum | -0.42 | 6.48 | 0.40 | 8.92 | 4.01 | -3.01 | 0.02 | 0.00 | 0.10 | 0.11 | 0.02 |
| Maximum | 0.74 | 10.21 | 11.84 | 197.32 | 48.06 | 82.00 | 1.95 | 0.96 | 1.00 | 1.00 | 1.00 |
| | | | | | | | | | | | |
| Growth | | | | | | | | | | | |
| Real GDP per capita (log) | 0.23 | | | | | | | | | | |
| Average years of education | 0.18 | 0.86 | | | | | | | | | |
| Openness: trade/GDP | 0.02 | 0.13 | 0.17 | | | | | | | | |
| Government consumption/GDP | -0.09 | 0.47 | 0.46 | 0.31 | | | | | | | |
| Inflation, CPI | -0.11 | -0.22 | -0.21 | -0.22 | -0.24 | | | | | | |
| Private credit/GDP | 0.11 | 0.67 | 0.63 | 0.11 | 0.29 | -0.37 | | | | | |
| FDI/GDP | 0.07 | 0.36 | 0.42 | 0.26 | 0.22 | -0.21 | 0.36 | | | | |
| FDI Concentration | -0.06 | -0.40 | -0.43 | 0.02 | -0.11 | 0.03 | -0.36 | -0.28 | | | |
| (1 - Political Constraints) | -0.20 | -0.65 | -0.66 | -0.03 | -0.35 | 0.15 | -0.48 | -0.27 | 0.36 | | |
| FDI Concentration X (1 - Political Constraints) | -0.16 | -0.62 | -0.63 | -0.01 | -0.28 | 0.09 | -0.46 | -0.28 | 0.73 | 0.84 | |

**Table 3: Dynamic Panel Data Results, Full Sample**

| | | | | | | |
|---|---|---|---|---|---|---|
| Real GDP per capita (log) | -0.267** | -0.424** | -0.413** | -0.394** | -0.367** | -0.350** |
| | 0.092 | 0.094 | 0.092 | 0.097 | 0.105 | 0.100 |
| FDI/GDP | 0.456+ | 0.108 | 0.225 | 0.256 | 0.230 | 0.244 |
| | 0.261 | 0.219 | 0.249 | 0.249 | 0.246 | 0.229 |
| Average years of education | | 0.074** | 0.074** | 0.071** | 0.068** | 0.067** |
| | | 0.021 | 0.023 | 0.022 | 0.023 | 0.024 |
| Openness: trade/GDP | | | -0.001 | -0.001 | -0.001 | -0.001 |
| | | | 0.001 | 0.001 | 0.001 | 0.001 |
| Government consumption/GDP | | | | -0.005 | -0.004 | -0.003 |
| | | | | 0.004 | 0.004 | 0.004 |
| Inflation, CPI | | | | | 0.000 | 0.000 |
| | | | | | 0.000 | 0.000 |
| Private credit/GDP | | | | | | -0.020 |
| | | | | | | 0.090 |
| Constant | 2.378** | 3.357** | 3.298** | 3.223** | 2.987** | 2.835** |
| | 0.775 | 0.749 | 0.718 | 0.739 | 0.783 | 0.767 |
| Observations | 341 | 341 | 341 | 341 | 341 | 341 |
| Number of Countries | 87 | 87 | 87 | 87 | 87 | 87 |

Standard errors below coefficient estimates

+ significant at 10%; * significant at 5%; ** significant at 1%

**Table 4: Dynamic Panel Data Estimator, Low Economic and Political Concentration**

| | | | | | | |
|---|---|---|---|---|---|---|
| Real GDP per capita (log) | -0.162** | -0.196** | -0.202* | -0.192* | -0.207** | -0.201** |
| | 0.054 | 0.072 | 0.081 | 0.083 | 0.076 | 0.075 |
| FDI/GDP | 0.608* | 0.534** | 0.550* | 0.489* | 0.490** | 0.440* |
| | 0.243 | 0.205 | 0.219 | 0.195 | 0.169 | 0.203 |
| Average years of education | | 0.016 | 0.011 | 0.018 | 0.015 | 0.013 |
| | | 0.021 | 0.024 | 0.022 | 0.019 | 0.020 |
| Openness: trade/GDP | | | 0.001 | 0.002 | 0.002+ | 0.002+ |
| | | | 0.001 | 0.001 | 0.001 | 0.001 |
| Government consumption/GDP | | | | -0.010* | -0.008+ | -0.008 |
| | | | | 0.005 | 0.004 | 0.005 |
| Inflation, CPI | | | | | 0.000 | 0.000 |
| | | | | | 0.000 | 0.000 |
| Private credit/GDP | | | | | | 0.018 |
| | | | | | | 0.069 |
| Constant | 1.610** | 1.811** | 1.802** | 1.817** | 1.934** | 1.867** |
| | 0.486 | 0.558 | 0.612 | 0.613 | 0.572 | 0.544 |
| Observations | 164 | 164 | 164 | 164 | 164 | 164 |
| Number of Countries | 56 | 56 | 56 | 56 | 56 | 56 |

Standard errors below coefficient estimates

+ significant at 10%; * significant at 5%; ** significant at 1%

**Table 5: Dynamic Panel Data Estimator, High Economic and Political Concentration**

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| Real GDP per capita (log) | -0.135+ | -0.172* | -0.123+ | -0.118 | -0.155 | -0.266* |
| | 0.078 | 0.086 | 0.074 | 0.086 | 0.145 | 0.117 |
| FDI/GDP | -2.346+ | -2.611+ | -2.434+ | -2.712* | -2.349+ | -2.009+ |
| | 1.386 | 1.542 | 1.316 | 1.347 | 1.210 | 1.185 |
| Average years of education | | 0.035 | 0.072+ | 0.074 | 0.068 | 0.073 |
| | | 0.036 | 0.042 | 0.051 | 0.052 | 0.050 |
| Openness: trade/GDP | | | -0.003 | -0.002 | -0.003 | -0.003 |
| | | | 0.002 | 0.002 | 0.002 | 0.002 |
| Government consumption/GDP | | | | -0.005 | -0.004 | -0.005 |
| | | | | 0.004 | 0.003 | 0.004 |
| Inflation, CPI | | | | | -0.001 | -0.002+ |
| | | | | | 0.002 | 0.001 |
| Private credit/GDP | | | | | | 0.314 |
| | | | | | | 0.519 |
| Constant | 1.098+ | 1.287* | 0.995+ | 1.006 | 1.319 | 2.135** |
| | 0.605 | 0.629 | 0.518 | 0.620 | 1.035 | 0.827 |
| Observations | 74 | 74 | 74 | 74 | 74 | 74 |
| Number of Countries | 38 | 38 | 38 | 38 | 38 | 38 |

Standard errors below coefficient estimates

+ significant at 10%; * significant at 5%; ** significant at 1%