Signalling Demand for Foreign Investment: Postsocialist Countries in the Global Bilateral Investment Treaties Network

NINA BANDELJ, MATTHEW C. MAHUTGA & KRISTEN SHORETTE

Abstract
A unique dataset on bilateral investment treaties provides a novel source of evidence on the link between neoliberal globalisation and market transition. We argue that postsocialist countries of Europe and Eurasia, more than other developing regions in the world, signed such treaties to signal demand for foreign investment in the spirit of neoliberalism. We calculated the density of the whole BIT network since its inception in 1959 to 2009, and density and centrality of different regional blocks within it, and found strong support for our argument. Yet, even if bilateral investment treaties are designed to promote foreign direct investment, dynamic panel regression models show that signing them does not automatically translate into foreign direct investment inflows for postsocialist European and Eurasian countries in the 1990–2010 period.
institutional framework for material flows of foreign direct investment (FDI). We argue that postsocialist countries of Europe and Eurasia—more than any other developing region in the world—have signed BITs to signal demand for foreign investment as an anticipated neoliberal growth strategy, but that these institutional inter-state efforts did not necessarily translate into actual FDI inflow. Theoretically, we aim to further our understanding of the interplay between globalisation and postsocialist transformation by highlighting the complex relationships between global diffusion of policy ideas and material flows of foreign capital into the postsocialist European and Eurasian countries.

BITs are international institutional agreements between two countries for the reciprocal encouragement, promotion and protection of FDI (UNCTAD 2011). Multinational corporations (MNCs) that engage in foreign investment activities create a deeply integrated contemporary global economy (Gereffi 2005), compared to other historical periods of globalisation. Their pervasive activities are also consistent with the prominence of a neoliberal agenda in economic policy circles since the 1980s, which advocates the freer flow of capital across borders, along with other tenets of the Washington Consensus (Gore 2000; Campbell & Pederson 2001; Prasad 2006; Bandelj et al. 2011).

Given the prominence of the neoliberal agenda, the rapid proliferation of institutional arrangements to promote and protect FDI over the past few decades may come as no surprise. The first BIT was signed in 1959 between Germany and Pakistan. By 1969, 71 treaties were signed, almost exclusively between advanced capitalist countries and African and Middle Eastern developing countries. The 1990s saw a rapid increase in the number of BITs, rising from 386 in 1989 to 1,813 in 1999, and reaching 2,678 by 2009. Figure 1 shows this extraordinary growth trend in BITs. The number of countries involved in BITs has also increased to near universal inclusion: by 2009, 188 sovereign states and the Palestine Authority had signed at least one BIT, out of 192 states recognised by the United Nations.
In this article we scrutinise the position of postsocialist countries in the worldwide BIT network and its consequences for FDI inflows. We make two arguments. First, we suggest that postsocialist countries signed many BITs to forge connections to potential investor countries in hopes of attracting FDI, which was claimed to facilitate market transition. We test this argument by calculating the density and centrality of the whole BIT network, and different regional blocks, in particular postsocialist Europe and Eurasia, within it. Our results show that while the network has become denser overall, the centrality position for postsocialist countries in the network rose the fastest, leaving other developing regions behind, and by 2009 closely approached those of advanced capitalist countries.\footnote{Degree and eigenvector network centrality each indicate the importance of the country in the network. Degree centrality for any given country is the sum of the number of its treaties. Eigenvector centrality weights connections with more central countries more heavily.}

We understand this phenomenon as part of the efforts by postsocialist countries to encourage an influx of FDI into their territories, or what we call signalling demand for FDI.

Our second argument is about the consequences of BIT signing for actual inflows of FDI into postsocialist countries. We argue that institutional efforts to open economies to FDI happened as part and parcel of neoliberal policy diffusion (Henisz et al. 2005; Kogut & Macpherson 2007; Lim & Tsutsui 2012), and did not translate into actual FDI flows due to decoupling between policies and practices in uncertain economic environments of market transition (Borocz 2000; Bandelj 2008b). Dynamic panel regression models show that the BIT count is a poor predictor of FDI into postsocialist countries for the 1990–2009 period, with or without considering alternative FDI determinants. This is consistent with the interpretation of BITs as a policy script diffused to postsocialist (and other developing) countries in the post-1989 period, which may not have the anticipated causal effect on material FDI flows.

We proceed by providing a definition and brief historical background of the empirical anchor of our study, the BITs. In the following section, we then discuss the economic transformation of postsocialist countries in the context of neoliberal globalisation, in particular these countries’ efforts to promote FDI, which is seen as a catalyst of market transition, but also how formal institutional arrangements are often bypassed by informal considerations when economic action happens in uncertain transforming environments.

In the data and methods section we explain the two empirical components of our research. The first one is a network analysis to examine prominence of BITs signed by postsocialist countries since 1989, by calculating density scores for the BIT network and centrality scores for different regional blocks, at five, ten-year intervals beginning in 1959 when the first BIT was signed. The second one is a regression analysis to examine the influence of BITs on FDI inflow. In the final section we address the discrepancies between BIT network centrality of the region and its positional power in the material global capital network.

A definition and brief history of BITs

The United Nations Conference on Trade and Development (UNCTAD), the principle organisation collecting BIT data, defines BITs as follows:

BITs are agreements between two countries for the reciprocal encouragement, promotion and protection of investments in each other’s territories by companies based in either country. Treaties

\footnote{Degree and eigenvector network centrality each indicate the importance of the country in the network. Degree centrality for any given country is the sum of the number of its treaties. Eigenvector centrality weights connections with more central countries more heavily.}
typically cover the following areas: scope and definition of investment, admission and establishment, national treatment, most-favoured-nation treatment, fair and equitable treatment, compensation in the event of expropriation or damage to the investment, guarantees of free transfers of funds, and dispute settlement mechanisms, both state–state and investor–state. (UNCTAD 2015)

In cases of disputes, many BITs allow for international arbitration under the auspices of the International Center for Settlement of Investment Disputes. This means that many foreign investors whose rights may have been violated could seek international arbitration rather than resort to suing the host country in its national courts (Vandevelde 2009). This provision and the aims of the treaties have stayed remarkably constant over the 50-year period since the first treaty was signed in 1959. For example, the introductory text of one of the first treaties between Germany and Malaysia (signed in 1960) is almost identical to that of a treaty signed between Germany and Jordan in 2009, and to another one between Guatemala and the Czech Republic in 2001 (UNCTAD 2011).

Germany was the first to conclude a BIT in 1959 with Pakistan. Observers argue that because Germany lost its foreign investments as a result of its defeat in World War II, it was especially sensitive to the political risks to which foreign investment was exposed (Salacuse & Sullivan 2005). Other western European countries quickly followed Germany’s lead, including France, which signed BITs with the Central African Republic, Chad and Congo in 1960, and Switzerland, which signed a BIT with Tunisia in 1961. Thus, the period from 1959 to 1980 was one in which BITs were driven primarily by the attempts of advanced capitalist countries to protect their investments abroad, particularly in the context of a wave of decolonisation and pro-communist political upheavals in Africa, Asia and Latin America. All BIT ties thus linked advanced capitalist countries to countries in the global South.

Significant changes occurred in the pattern of BIT ties starting in late 1980s. While fewer than 400 BITs had been concluded in the 30 years from 1959 to 1989, during the next 20 years more than 2,000 BITs were signed. Since 1999, the BIT network has become extremely dense. One notable trend is the increasing percentage of developing countries that sign treaties with each other, rather than with advanced capitalist countries. Each of the five BITs signed in 1970 included at least one western or advanced capitalist country (see categories 1 or 7 in Table 1) compared to only 15 of the 61, or about 25%, of the BITs signed in 2009. This indicates that the meaning of BITs may have shifted in the context of neoliberal globalisation from instruments of protection of investment to instruments of promotion of investment, signed more and more indiscriminately with countries with low rather than high outward FDI.

The interplay of neoliberal globalisation and postsocialist economic transformation

A key aspect of the postsocialist economic transformation was market liberalisation—that is, allowing free foreign capital exchange and allowing foreign economic actors to participate in the postsocialist economies as investors. According to Eyal et al. (1998), there were no domestic capitalists in Eastern Europe to help build capitalism because private property was abolished during socialism. So how could these countries ‘build capitalism without capitalists’ (Eyal et al. 1998)? Relying heavily on foreign capital seemed like a good strategy for many countries, including Hungary, Estonia and the Czech Republic, which structured the process of large-scale privatisation in a way that encouraged foreign
| Country                  | Region by Regional Designation | Notes: 1 = Advanced Capitalist, 2 = Latin America; 3 = Postsocialist Europe and Eurasia; 4 = Asia; 5 = North Africa/Middle East; 6 = Africa; 7 = Other Western. East Germany and North and South Yemen were included from 1969 through 1989, while all the post-socialist countries were omitted in this period. Yugoslavia ceased to exist and was omitted in 2009, replaced by Serbia and Montenegro. |
investors to participate by bidding in contests for the purchase of state owned enterprises involving both domestic and foreign actors. This resulted in foreign-led economies (Bohle & Greskovits 2007, 2012; Drahokoupil 2008b).

Moreover, international financial organisations envisioned FDI as the catalyst of market transition, even in the early transition period (IMF 1997; UNCTAD 1998). This was integral to the ‘Washington Consensus’, a neoliberal policy agenda advocated by international development agencies like the IMF and the World Bank located in Washington, DC (Gore 2000). Economic principles captured in the Washington Consensus include stabilisation, privatisation, deregulation and liberalisation of trade and capital flows, and rest on neoclassical tenets that the growth in the stock of capital is the primary driver of economic expansion (Barro & Sala-i-Martin 1995). Accordingly, the rapidity with which developing countries would grow economically was stipulated to depend on the extent to which they received expansive FDI. We should note here that openness to foreign investment as a growth strategy should not be considered a natural and obvious response to foster economic development. Throughout history various approaches have been found to stimulate growth, from mercantilist protectionism of the sixteenth to eighteenth centuries, to command economy of socialism, to embedded autonomy that drove the growth of the Asian Tigers, among others (Bandelj & Sowers 2010). Moreover, much research in the sociology of development, adopting world-systems and dependency theoretical lenses points to negative consequences of foreign investment (Dixon & Boswell 1996; Kentor 1998, 2001; de Soysa & Oneal 1999; Alderson & Nielsen 2002; Beer & Boswell 2002; Alderson 2004; Mahutga & Bandelj 2008). Further, recent studies on the link between FDI and growth have actually found a negative relationship (Herzer 2012; Curwin & Mahutga 2014). All this considered, neoliberalism that promotes FDI as a growth strategy is treated here not as based on objective economic relationships but as a policy paradigm that is constructed as more or less legitimate by states that embrace the Washington Consensus (Fourcade & Babb 2002; Mudge 2008).

It is in this context that the rise of the Washington Consensus as a policy paradigm (Gore 2000) in the late 1980s coincided with the period of dramatic transformations in Eastern Europe and Eurasia. Indeed, researchers have noted the interplay between the processes of neoliberal globalisation and postsocialist transformation, and have identified the influence of neoliberal economic policy on various market reforms in the region (Srubar 1996; Stuckler et al. 2009; Orenstein 2009). As Bandelj (2009) argues, postsocialist countries began to institutionalise demand for FDI soon after 1989. Integral to these efforts were actions to institute the regulatory framework that encouraged foreign investment with various tax breaks and incentives. In addition, all postsocialist countries created professional agencies charged with attracting FDI and facilitating deals with foreign investors (Cass 2007). Moreover, the legitimacy of FDI was also enhanced after several important state monopolies, for example in telecommunications or banking, were sold to foreign investors, which signalled to potential investors that postsocialist countries were serious about attracting FDI, but also diffused the idea that domestic firms should actively pursue foreign partners to the domestic business community (Bandelj 2008a, 2009). Likewise, Drahokoupil points to the role of ‘investment promotion machines’, or coalitions of actors ‘that form in the process of bidding for investors and promoting them in [Central and Eastern Europe]’ (Drahokoupil 2008b, p. 197). Such coalitions include politicians, bureaucrats and economic actors at the national, regional and municipal levels, together with international actors.
Drahokoupil also notes some domestic resistance to ‘promotion machines’. Indeed, adverse reactions to foreign investment as an anticipated growth strategy should have been expected from postsocialist countries. Given foreign control of most of Eastern Europe by the former Soviet Union during the socialist period, it would appear that newly sovereign Eastern European states would try to protect their ‘family silver’ from foreign ownership (Sinn et al. 1997). These protectionist tendencies were indeed voiced in public debates in several postsocialist countries, especially those with more pervasive nation-building efforts (Bandelj 2008a). Nevertheless, if we bracket domestic politics for and against FDI, on average, Central and Eastern European countries had opened their door widely to FDI by the late 1990s. The pressure from the international environment to do so was significant but it would be incorrect to assume that the neoliberal policy scripts were simply imported into postsocialist Europe due to external pressure (Bockman & Eyal 2002; Bockman 2011).²

At the same time it would be incorrect to assume that the adoption of certain institutional arrangements directly translates into economic practice. Research in the world society tradition shows that economic policies can be considered as scripts that are part of contemporary global culture and are diffused through international governmental and non-governmental associations (Meyer et al. 1997; Boli & Thomas 1997; Ramirez et al. 1997; Frank et al. 2000; Longhofer & Schofer 2010). As such, decoupling, or the difference between formal policies or scripts and practices on the ground, can be expected (Meyer et al. 1997). Moreover, research on postsocialist transformations has pointed to a discrepancy between formal rules and informal arrangements (Borocz 2000; Bandelj 2009). Based on this, we would expect that signing BITs, in the spirit of neoliberal reforms, is used to promote FDI but it might not necessarily have an impact on actual FDI inflows. Indeed, the literature on the impact of BITs on FDI is inconclusive. While some studies find support (Neumayer & Spess 2005), there are others that find a weak or even insignificant link between BITs and FDI (Gallagher & Birch 2006; Yackee 2008; Berger et al. 2011; Peinhardt & Allee 2012).³

In what follows, we empirically evaluate two arguments. The first is that postsocialist European and Eurasian countries have started to give prominence to signing BITs to promote FDI, and to a greater extent than other developing regions. The second is that BIT signing by individual postsocialist European and Eurasian countries has a weak effect on FDI inflows. Hence, we conduct the empirical analysis in two parts: first, network analysis of the BITs network over time and the centrality of regional blocs within it; and second, dynamic panel regression analysis of determinants of FDI.

Data and methods for network analysis

The data for the network analysis come from the online UNCTAD database on BITs, which includes all BITs entered into by any country (UNCTAD 2015). We coded the year of the signing of a BIT between two sovereign countries in a particular year. For the network

²Obviously, there have been differences across countries along this dimension. We acknowledge country variation but bracket it in the present analysis that attempts to portray regional trends in postsocialist European and Eurasian countries, compared to other world regions.

³For a summary review see Sauvant and Sachs (2009).

⁴We used the UN membership list as a criterion of national sovereignty and counted the 192 countries that the UN lists as the population of countries in the world. In addition, we added the National Palestine Authority since its establishment as an administrative unit in 1994, since the National Palestine Authority is the only non-officially recognised country that signs BITs.
analysis, we coded a tie (or lack thereof) between two countries as the presence (or absence) of a BIT in each year from 1959 (when the first BIT was signed) to 2009 (the most recent year for which we have data).

In order to examine the role of postsocialist countries in the BIT network, we created a series of theoretically driven group designations that correspond both to geographical regions and status in the world-system. We count all countries that were under communist party rule before 1989 as ‘Postsocialist Europe–CIS’ (where CIS stands for the Commonwealth of the Independent States and refers to the former USSR). We compare them to ‘Advanced Capitalist’ countries, which include the wealthiest 18 members of the Organization for Economic Cooperation and Development (OECD). ‘Other European’ countries include European countries that are not among this high status group. ‘Asian’ countries include all countries from east, south and south-east Asia except for Japan, which is included in the Advanced Capitalist group. The ‘Latin America’, ‘Middle East and North Africa’ and ‘Africa’ groups include countries that are in these respective geographical regions. Table 1 displays a list of countries by regional designation, though not all countries are present in the dataset in all years. The presence or absence of a country corresponds to the date of its proclamation of sovereignty and international recognition as indicated in the CIA Factbook on countries (in the 1959–1989 period) and membership in the United Nations (in the 1990–2009 period, when UN membership becomes synonymous with international recognition).

Density, centrality and eigenvector centrality measures

Our primary concern here is the assessment of the density and centralisation of the whole BIT network, as well as the density and centrality of the postsocialist countries vis-à-vis other regions over time. Density measures the number of ties as a proportion of all possible ties, and can be assessed at the country, region or world levels. Thus, network or global-level density is the proportion of ties in a network relative to the total number possible, while the density of ties within and between regions reflects the number of ties within and between regions as a proportion of the total possible. We also measure the centrality of both individual countries and regional groups with two measures of centrality. One of the most common measures is degree centrality, which is simply a count of the number of ties an actor has to others (Freeman 1979). It can be expressed as a raw count or (normalised) as a percent of the total possible. We use the normalised degree centrality measure, or the percent of total possible ties. (A score of 30 for a country on this measure, for example, would mean that a given country has signed 30% of all possible BITs).

While informative, degree centrality does not capture the overall position of an actor in the whole network because it does not take into account the centrality of the actors to which one is connected. Consider the case in which actor A had relations with $n-1$ others (maximum degree centrality), but these others only had relations with A. Actor A is certainly powerful vis-à-vis those she or he is connected to, but may be less influential than an actor who is even moderately connected to actors that are themselves central to the whole

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5CIS countries include the Russian Federation, Ukraine, Belarus, Kazakhstan, Kyrgyzstan, Turkmenistan, Uzbekistan, Moldova, Armenia, Azerbaijan, Georgia and Tajikistan.

network. Indeed, the prominence of an actor is greater if this actor is connected to other powerful actors, rather than to many peripheral ones. Hence, we also use eigenvector centrality to compare to degree centrality as shown in Equation (1) (Bonacich 1972). In Equation (1), \( a \) is the presence/absence or size of the tie between \( i \) and \( j \), depending on the underlying relation; \( x \) is the centrality of \( j \). Given that \( i \) is the focal node, this formula weights the presence or absence and value of each tie by the centrality of the focal actor’s partner.\(^7\)

\[
c_i = \sum_{j=1}^{n} a_{ij}x_j
\]

Conceptually, eigenvector centrality simply weights an actor’s degree centrality proportional to that of its neighbourhood so that countries that are strongly tied to other central countries are proportionally more central than those which are tied to less central countries.

**Results of the network analysis**

We first provide a preliminary test of our argument about the centrality of postsocialist countries in the worldwide BIT network, by comparing the number of new BITs signed in any particular year with advanced capitalist or postsocialist countries. Figure 2 clearly shows that after 1990, postsocialist countries are represented in a very significant share of these new BITs, even more than the advanced capitalist countries.

\(^7\)For another application of eigenvector centrality measure see the study of Mahutga et al. (2010) on global cities.
The BIT network became increasingly dense over the period as an increasing number of countries signed BITs. Moreover, the rate of increase increased dramatically following the collapse of the communist regimes, as evinced by the rapid increase in density following 1989. Despite the trend toward increasing density, however, the low overall level of peak density in 2009 suggests that just less than 15% of the possible number of BITs were signed. Clearly, some countries were more likely to sign BITs than others. Thus, much of the increase in density must be explicable by the tendency of a subset of countries to sign a disproportionate number of BITs.

Table 2 identifies which regions signed BITs with which other regions by reporting block models for the BIT network in the years 1969, 1979, 1989, 1999 and 2009. The cells in each yearly matrix report the density within and between each of the regional groupings outlined above, with within-group densities located on the diagonal and displayed in bold, and between-group densities reported in the off-diagonal cells. Because the treaty network is symmetrical by definition (a treaty is either present or absent, and a treaty from \( i \) to \( j \) implies a treaty from \( j \) to \( i \)), the off-diagonal entries above and below the diagonals are identical, and therefore not reported.

Consistent with the trend in network density shown in Figure 3, these block models indicate a rising amount of interconnection over time, as indicated by the movement from many zero blocks in 1969 to no zero blocks in 2009. Advanced Capitalist countries have an important position in the network; most of the largest observed increases in density are between the Advanced Capitalist group and all others. Nevertheless, and consistent with our argument here, the Postsocialist Europe–CIS bloc shows a rapid increase in density with other regions over time, forging ties to all other regional blocks (albeit less with Africa), but also within its own regional grouping. By 2009, the density of ties between the Advanced Capitalist and Postsocialist Europe–CIS bloc countries was the highest of all possible inter-regional and intra-regional densities at 0.581 (which means almost 60% of all possible ties were forged). This is followed by the density within the Postsocialist Europe–CIS bloc countries at 0.545. North Africa/Middle East and Asia have more ties to the Postsocialist countries than to any other developing region. Other Europe has more ties to the Postsocialist countries than to any other region. The density between the Postsocialist and Latin American countries is surpassed only by those Latin America has to Advanced Capitalist and Other Europe regions. All this suggests that by 2009, the Postsocialist Europe–CIS countries had signed more BITs than any other developing region, including Other Europe, North Africa/Middle East, Asia, Latin America and Africa, and had become an important centre of gravity in the worldwide BIT network.

To specify what influence the Postsocialist Europe–CIS countries carry in the BIT network, the second stage of our analyses involves calculating degree and eigenvector centrality scores for all regional blocks. (The higher the score, the more connected the region is as a result of its BITs with other regions.) Figures 3 and 4 track these values for 1959, 1969, 1979, 1989, 1999 and 2009. Figure 3 shows that Advanced Capitalist countries were the most central in degree centrality of all of the blocks, but also that Postsocialist Europe–CIS increased their centrality markedly after 1989. In fact, eigenvector centrality,

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8Interestingly, BITs continued to be signed even in the period of the worldwide economic crisis; between 2008 and 2009 more than 100 new treaties have been signed.
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<td>Other Western</td>
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Notes: Density is the number of present ties as a proportion of the total possible. Diagonal values in bold are within group densities.
which accounts for the centrality of each country’s neighbourhood and is presented in Figure 4, shows that in 1999 and 2009, the eigenvector centrality scores for the Advanced Capitalist and Postsocialist Europe–CIS block were almost indistinguishable.
Data and methods for regression analysis

The goal of the second part of the analysis is to examine what influence signing BITs had on actual FDI inflow into postsocialist European and Eurasian countries. Here the dependent variable is FDI inflow measured as the yearly inflow of FDI, which we obtain from UNCTAD (2014). These data were logged for skewness, because taking the natural log of the raw data results in a better approximation of a normal distribution. The key independent variable of interest is BIT count per country in any particular year as derived from the network analyses described earlier.

We examined the role of BIT on FDI, but then also ran models where the BIT effect appears together with several key variables identified by previous research as FDI determinants (Blonigen 2005). Because FDI scales with size (Billington 1999; Chakrabarti 2001), we controlled for Gross Domestic Product (GDP) (World Bank 2014). Inflation captures economic risk and is measured by the annual percentage change in the cost to the average consumer of acquiring a basket of goods and services, and we implement the inflation data of the World Bank (2014). Transition countries also vary in terms of economic structure, where some are much more industrialised than others. For example, Montenegro’s average industrial output was 21.8% of GDP over the period, while Azerbaijan’s was over 48%. Because industrialised countries receive more FDI, on average, we controlled for industrialisation output as a percentage of GDP (World Bank 2014). Finally, in terms of economic conditions, previous research suggests that countries with open economies receive more FDI (Blonigen 2001; Swenson 2004). Thus, we controlled for trade openness with the sum of imports and exports of goods and services over GDP (World Bank 2014). Building on research on FDI determinants in the political science literature (Li & Resnick 2003; Jensen 2006), we also controlled for political risk. We included the International Country Risk Guide’s (ICRG) average political risk score. This is an average of the 12 components of risk compiled in ICRG’s Political Risk Ratings (Political Risk Services 2014), summarising expert assessment of issues such as government stability, conflict, corruption, law and order, democratic accountability and bureaucracy quality.

Because of specificities of FDI into postsocialist countries, which was often related to privatisation (Bandelj 2008b; Bandelj & Mahutga 2010), we also included a variable measuring the size of the private sector (logged to normalise), which is measured as the private sector’s share in GDP (EBRD 1999, 2003, 2011). In addition, we included a variable that captures whether a country is a European Union (EU) member, because this has been shown to matter for attracting FDI (Bevan & Estrin 2004; Clausing & Dorobantu 2005; Cirtautas & Schimmelfennig 2010). This is a country and time-varying dummy variable that equals 1 when a country is an official member of the EU.

Dynamic panel regression models

In order to assess the FDI effects of BITs, we regress the yearly inflow of FDI (log) on contemporaneous and lagged counts of BITs. The data are pooled across the years from 1990 to 2010. Pooling these data allows us to account for omitted variables that vary across countries but not over time (unit effects). Panel data such as these often result in serially correlated errors. We rejected the hypothesis that the error terms are serially uncorrelated at conventionally modest levels of significance. Because the path-dependent nature of FDI is
of substantive interest (and found as a significant predictor in previous studies), we estimate the Arellano–Bover/Blundell–Bond (ABBB) dynamic panel model. To eliminate the problem of unobserved time invariant country effects, the estimator applies the first difference transformation to both sides of the equation. Differencing leads to correlation between the lagged dependent variable and the unobserved country effect and thus to bias estimates of the parameter on the former. To address this source of bias, Blundell and Bond (1998) developed a Generalized Method of Moments (GMM) system estimator that uses additional moment conditions to those proposed by Arellano and Bond (1991). In the original ‘Arellano–Bond’ (AB) estimator, the lagged dependent variable is instrumented by all available lagged levels of the dependent variable, as well as the standard instruments in the first stage regression. Blundell and Bond (1998) developed the more efficient ABBB estimator by exploiting additional moment conditions—all available lagged differences of the lagged dependent variable are included as additional instruments in the first stage. The consistency of the ABBB estimator depends on the validity of the assumption of zero second-order serial correlation in the error term. We thus implement the AB test for second-order serial correlation, which tests the null hypothesis of zero second-order serial correlation in the error term. We also correct for heteroskedasticity, or the unequal variability of an independent variable at different values of the dependent variable, by implementing robust standard errors, and include a linear time trend.

While the coefficients we report below come from the ABBB model, we also replicate these results with two additional estimators. First, we replicate these models with a fixed effects estimator that addresses serial correlation through the implementation of a heteroskedasticity and serial-correlation consistent variance/covariance matrix. Second, we replicate these models with a fixed effects estimator that addresses serial correlation with a Prais–Winston transformation, and both heteroskedasticity and cross-sectional dependence with panel corrected standard errors. These results were substantively identical and are available upon request.

Because of missing data and the application of the first-difference transformation, less than the full set of possible countries appear in the models (listed in Table 3). The panels are also unbalanced, with countries yielding a varying number of observations across time. Table 1 lists the countries that appear, the time period in which we observe them, and the number of missing observations within each country-period. All regressions were carried out with Stata 12.0.

**Results of regression analysis**

We first examine a simple association between the number of BITs signed by countries and yearly inflows of FDI that these countries receive. The least-squares linear smoother suggests the relationship is almost exactly zero, presented in Figure 5.

Table 4 reports the results of six ABBB regression models in which we include BITs, the lagged dependent variable and a linear term for time. Unsurprisingly, the time trend is steeply upward and there is a degree of inertia in FDI flows, with previous flows significantly predicting future flows. Holding constant these two factors, none of the contemporaneous or lagged BIT counts have a significant relationship with FDI inflows. These ABBB coefficients are not the result of model inconsistency, as we cannot reject the null hypothesis of zero second-order auto correlation in the residuals in any of models 1–6. While these null findings...
are consistent with our argument that postsocialist transition countries motivate BITs with a desire to signal their ‘investability’ to all potential investors rather more than to facilitate FDI from a particular signatory partner, it is also possible that an association between BITs and FDI may emerge once we control for additional causes of FDI.

Thus, Table 5 replicates the specification of Table 4, but also includes economic, political and institutional factors shown to correlate with FDI elsewhere. The coefficients in models 1–6 are consistent, as evinced by the non-significant AB test. As a group, these covariates do explain cross-national and temporal variation in FDI insofar as they reduce the size of the lagged dependent variable, and explain away the time trend. GDP is the strongest predictor among these additional factors, as FDI scales with economic size. Only private sector size and the EU member dummy bear a significant relationship to FDI. The significantly negative association between EU member and FDI in models 1–4 appears counterintuitive, but current EU member transition countries experienced rapid inflows of FDI before formal membership in 2004 and 2007, and the excluded category in this dummy variable includes the country-years of current EU member countries, before

### Table 3

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<th>Country</th>
<th>Flow = BIT + Year (Table X, Model 1)</th>
<th>Flow = BIT + Year + Controls (Table Y, Model 1)</th>
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<td>1994</td>
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<td>2010</td>
<td>1995</td>
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<td>2010</td>
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<td>2010</td>
<td>1992</td>
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<tr>
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<td>1991</td>
<td>2010</td>
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<td>2010</td>
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</tr>
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<td>2010</td>
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<td>1993</td>
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<td>1994</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>1993</td>
<td>2010</td>
<td>1994</td>
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FIGURE 5. BIVARIATE ASSOCIATION BETWEEN FDI AND BIT.

TABLE 4
UNSTANDARDISED COEFFICIENTS FROM ARELLANO–BOVER/BLUNDELL–BOND LINEAR DYNAMIC PANEL-DATA REGRESSION OF FDI INFLOWS ON BIT COUNTS

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
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<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
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<tr>
<td>Lagged dependent</td>
<td>0.421***</td>
<td>0.410***</td>
<td>0.453***</td>
<td>0.452***</td>
<td>0.429***</td>
<td>0.549***</td>
</tr>
<tr>
<td>BIT</td>
<td>−0.011</td>
<td>−0.011</td>
<td>−0.011</td>
<td>−0.011</td>
<td>−0.011</td>
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<tr>
<td></td>
<td>(−1.177)</td>
<td>(−1.177)</td>
<td>(−1.177)</td>
<td>(−1.177)</td>
<td>(−1.177)</td>
<td>(−1.177)</td>
</tr>
<tr>
<td>BIT (t − 1)</td>
<td>0.012</td>
<td>0.012</td>
<td>0.006</td>
<td>0.006</td>
<td>0.003</td>
<td>0.003</td>
</tr>
<tr>
<td></td>
<td>(1.364)</td>
<td>(1.364)</td>
<td>(0.854)</td>
<td>(0.854)</td>
<td>(0.398)</td>
<td>(0.398)</td>
</tr>
<tr>
<td>BIT (t − 2)</td>
<td>0.006</td>
<td>0.006</td>
<td>0.006</td>
<td>0.006</td>
<td>0.003</td>
<td>0.003</td>
</tr>
<tr>
<td></td>
<td>(0.854)</td>
<td>(0.854)</td>
<td>(0.854)</td>
<td>(0.854)</td>
<td>(0.398)</td>
<td>(0.398)</td>
</tr>
<tr>
<td>BIT (t − 3)</td>
<td>0.003</td>
<td>0.003</td>
<td>0.003</td>
<td>0.003</td>
<td>0.006</td>
<td>0.006</td>
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<tr>
<td></td>
<td>(0.398)</td>
<td>(0.398)</td>
<td>(0.398)</td>
<td>(0.398)</td>
<td>(0.398)</td>
<td>(0.398)</td>
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<tr>
<td>BIT (t − 4)</td>
<td>−0.002</td>
<td>−0.002</td>
<td>−0.002</td>
<td>−0.002</td>
<td>−0.004</td>
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<tr>
<td></td>
<td>(−0.219)</td>
<td>(−0.219)</td>
<td>(−0.219)</td>
<td>(−0.219)</td>
<td>(−0.607)</td>
<td>(−0.607)</td>
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<tr>
<td>BIT (t − 5)</td>
<td>−0.004</td>
<td>−0.004</td>
<td>−0.004</td>
<td>−0.004</td>
<td>−0.004</td>
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</tr>
<tr>
<td></td>
<td>(−0.219)</td>
<td>(−0.219)</td>
<td>(−0.219)</td>
<td>(−0.219)</td>
<td>(−0.219)</td>
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<tr>
<td>Year</td>
<td>0.035***</td>
<td>0.042***</td>
<td>0.037***</td>
<td>0.036***</td>
<td>0.037***</td>
<td>0.026***</td>
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<tr>
<td>Constant</td>
<td>−68.617***</td>
<td>−81.780***</td>
<td>−72.979***</td>
<td>−70.276***</td>
<td>−72.491***</td>
<td>−50.570***</td>
</tr>
<tr>
<td></td>
<td>(−4.690)</td>
<td>(−5.781)</td>
<td>(−5.333)</td>
<td>(−5.798)</td>
<td>(−6.178)</td>
<td>(−4.279)</td>
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<tr>
<td>AB test</td>
<td>0.397</td>
<td>0.416</td>
<td>0.715</td>
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<td>421</td>
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<td>396</td>
<td>373</td>
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</tbody>
</table>

Notes: Robust Z-statistics in parentheses, two-tailed tests, $p > 0.05^*, p > 0.01^{**}, p > 0.001^{***}$

*Arellano–Bond test for second-order serial correlated errors tests the null hypothesis that the error terms have zero second-order serial correlation.
they were EU members. What is clear from the coefficients on BITs in Table 5, however, is that BITs do not bear a significant association with FDI, even when controlling for these additional correlates.

Discussion and conclusion

BITs are an increasingly important form of economic institutional agreements between two countries. They are international policy instruments intended to promote and protect foreign investment between signatory countries. Our article links the growth in BITs since the 1990s to creation of liberal markets in postsocialist countries after 1989. We posit that the desire of European and Eurasian postsocialist countries to integrate into a global economy is a
significant driver of the rise of this region in a worldwide BIT network. Specifically, we argued that postsocialist countries signalled demand for FDI by striving to forge connections to potential investors *via* BITs, but that these formal institutional efforts did not have a significant effect on actual FDI inflows.

In order to bring evidence to bear on this argument, we first conducted an historical network analysis of the BIT network and the role of different regional clusters in it. Specifically, we examined the trend in network density, which showed that the BIT network has indeed become denser over time. At the same time, we also showed that the density of ties both within the postsocialist group and between this group and other regional blocks has increased much more than that within and between other regions, and that the overall density of ties between the postsocialist group and any other world region is, in 2009, the highest among the developing countries. It seems that postsocialist countries have embraced BITs as a vehicle of FDI promotion much more than other comparable developing countries. The unique contribution of postsocialist countries to the evolution of the BIT network is also reflected in its ascending degree and eigenvector network centrality scores, which rose more substantially than other regions to approach very closely those of advanced capitalist countries by 2009.

We interpret these findings as integral to the process of signalling demand for FDI in postsocialist countries. While others pointed to the establishment of professional FDI agencies and sales of strategic monopolies to foreign investors (Bandelj 2008b, 2009), as well as the active role of ‘investment promotion machines’ (Drahokoupil 2008b), our study points to how postsocialist states adopted, rather indiscriminately, a globally diffused institutional arrangement, BITs, in the spirit of neoliberal economic policy.

These findings also speak to arguments about the diffusion of global policy scripts in the world polity literature (Beckfield 2003, 2010). Given that international bodies such as UNCTAD heavily promoted BITs (Bandelj & Mahutga 2013) we might expect that BITs would spread rather uniformly across the globe. Indeed, all world regions start signing more BITs beginning in the late 1980s, which is consistent with the proliferation of neoliberal policy making. However, the striking growth in the postsocialist European and Eurasian countries is a specific regional effect related to market transition, and to understand it we must take into account the interaction between the ideas diffused by the international community and the socio-historical developments within specific regions. Based on our findings, scholarship interested in the outcomes of world culture would be well served to incorporate mechanisms operating at the local/regional scale.

Finally, we examine the extent to which the encouragement of FDI by the use of BITs actually translates into material FDI inflows. We find that the number of BITs signed by individual countries is not associated with increased FDI inflows into these countries at subsequent points in time. This conclusion is in line with other studies on the link between BIT and FDI which fail to find evidence for the expected positive relationship (Sauvant & Sachs 2009). This finding is also in line with research that finds how adoption of formal policies in Eastern Europe does not automatically translate into economic effects on the ground (Bandelj 2009). Theoretically, the lack of association between BITs and actual FDI provides evidence of ‘decoupling’, where national actors institutionalise a world policy script that does necessarily lead to its successful implementation (Meyer *et al.* 1997). While postsocialist countries have generally increased their FDI inflows between 1990 and
2010, it appears that the increase is less related to BITs than it is to privatisation, economic conditions and path-dependency of the process, whereby FDI at one point leads to more FDI at a subsequent point.

We hope our effort should encourage further empirical testing, such as examining bilateral FDI rather than country aggregate flows, differentiating between signed and ratified BITs, and examining a longer period of time. Our findings point to a complex interplay between material and institutional aspects of globalisation, as well as interactions between global and local (regional) forces, which all deserve further scrutiny in our effort to study postsocialist economic transformation in the context of economic globalisation.

References


SIGNALLING DEMAND FOR FOREIGN INVESTMENT


