The determinants of liberalization of FDI policy in developing countries: a cross-sectional analysis, 1992-2001

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The decade of the 1990s was characterized by widespread liberalization of laws and regulations affecting inflows of foreign direct investment in developing countries. Using a data base supplied by UNCTAD, this article employs a cross-sectional regression methodology to analyze the determinants of liberalization of foreign direct investment policies in 116 developing countries from 1992 to 2001. Ninety-five per cent of the changes in such policies over the decade (1,029 of 1,086) were liberalizing rather than restrictive. Two possible explanations of liberalization are suggested: policy makers' beliefs that attracting more foreign direct investment is in the best interests of their countries, and external pressure to adopt neoliberal economic policies either from the dominant power (the United States) or international organizations such as the World Bank or International Monetary Fund. Results provide strong support for the "rational" decision (or "opportunity costs of closure") argument and only limited support for the external pressure thesis. Country size, level of human resource capabilities and trade openness are found to be the primary determinants of the propensity to liberalize.

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Introduction

The 1991 *World Development Report* (World Bank, 1991, p. 31) concluded that a "sea change" had taken place in thinking about development: by the late 1980s, many developing countries had moved away from State directed, inwardly focused strategies towards an acceptance of both markets and integration into the world economy. While the motivations for this marked shift in policy are complex, the failure of import substitution, the success of the relatively open Asian economies, the collapse of socialism as an alternative, and the economic crises of the 1980s all played a role (Millner, 1999).

In 1990 John Williamson concluded that there was a "Washington Consensus" about the desirability of openness to the world economy, liberalization of domestic markets and macroeconomic stability (Gore, 2000; Williamson, 2000). In a retrospective article, he argues that "my version of the Washington Consensus can be seen as an attempt to summarize the policies that were widely viewed as supportive of development at the end of two decades when economists had become convinced that the key to rapid economic development lay not in a country's natural resources or even in its physical or human capital, but rather in the set of economic policies that it pursued" (Williamson 2000, p. 254).

Williamson believed that the process of intellectual convergence after the collapse of communism was reflected in ten economic rerforms: the seventh was liberalization of flows of foreign direct investment (FDI).[1] He wrote at the start of a period characterized by the widespread liberalization of laws and regulations affecting flows of both portfolio capital and FDI (Brune et al., 2001).[2] While developing countries began to

[1] Williamson *did not* call for full capital account liberalization.

[2] Brune *et al.* found that there were no aggregate increases in capital account openness in low and middle income countries until 1991. After that point there was a period of rapid and dramatic liberalization (Brune et al., 2001). Also see Barry Eichengreen (2001) and International Monetary Fund (2001), especially chapter 4, "International financial integration and developing countries".

reduce or remove restrictions on FDI during the 1980s, the trend became pronounced and widespread during the early 1990s as increasing numbers of policy makers came to believe that integration into the world economy was a prerequisite to growth and development and that FDI from transnational corporations (TNCs) was the vehicle to accomplish that end.[3]

A number of factors led to increased efforts by developing countries to attract flows of FDI. First, there was increased recognition by policy makers that the bundle of assets and capabilities encompassed in FDI could contribute directly to growth and development of the national economy. Second, declining levels of other forms of assistance increased reliance on FDI, and various financial crises may have led to a preference for longer term, relatively stable and often tangible flows of direct investment. Last, developing country governments have gained confidence in their ability to maximize the benefits and minimize the liabilities of investment by TNCs (UNCTAD, 1994, p. 85). As a result, the late 1980s and early 1990s were characterized by a "de facto convergence" of government policy approaches towards FDI (Noorbakhsh, Paloni, and Youssef, 2001).

The liberalization of FDI policy was both cause and effect of the marked increase in integration of the world economy in the 1990s which, in turn, reflected the transition of the ex-socialist to market economies after the "fall of the Wall", dramatic improvements in communication as a result of the digital/information revolution, changes in the nature of global production including the internationalization of supply chains and the ideological shift to open market economies, among other factors. Increasing economic integration, which includes policy liberalization, is reflected in dramatic increases in flows of FDI into developing countries during the late 1980s and the 1990s. Annual inflows to the developing countries grew by 250% during

[3] After a critical review of studies of trade liberalization, Stanley Fischer (2003, p. 15) concludes that "…openness to the global economy is a necessary, though not sufficient, condition of sustained growth."

the 1980s and over five-fold (520%) during the 1990s, reaching $22.9 billion in 1999. FDI inflows as a percentage of gross fixed capital formation in developing countries grew from 3.6% in 1990 to 14.3% by the decade's end. Last, stocks of FDI as a percentage of GDP doubled during the 1990s, increasing from 15.4% in 1989 to 30.2% in 1999 (UNCTAD, 2004).

This article reports a cross-sectional analysis of the determinants of liberalization of policy affecting inflows of FDI into 116 developing countries during the decade from 1992-2001. It makes use of a data base provided by UNCTAD (described below) that tracks liberalizing and restricting changes in eight categories of FDI policy by country over the ten year period. The changes were overwhelmingly liberalizing: 95% of the 1,086 regulatory changes in the sample countries either loosened regulatory restrictions or provided new promotions and guarantees to attract FDI; all but two of the countries included in this study were net liberalizers of FDI policy.

Liberalization of FDI policy

In their path-breaking study of capital account liberalization, Dennis Quinn and Carla Inclan (1997) note that, while there has been a good deal of research on the consequences of financial openness, its origins or determinants are much less well understood. That is true for both capital flows in general and FDI in particular. [4]

While there is a considerable literature dealing with the impact of tax concessions and other incentives to attract FDI (see Morisset and Pirnia, 2001 for a review), the literature

[4] See Eichengreen (2001) for a thorough review of capital account liberalization. It is important to note that portfolio flows and FDI are very different both phenomenologically and in terms of cause and effect. As a number of authors note (e.g. Eichengreen, 2001; Fischer, 2003; Prasad *et al*., 2003) there is a good deal more controversy about the desirability and impacts of capital account liberalization (on growth and stability) than there is for current account or trade liberalization.

dealing with FDI policy is considerably more modest. Alvin Wint (1992), for example, reviews the liberalization of FDI regulation in ten developing countries and concludes that there can be a disconnect between formal liberalization and the actual implementation of the screening process. Stephen Golub (2003) presents a complex scheme summarizing liberalization of restrictions on inward FDI in OECD countries. Jacques Morisset and Olivier Neso (2002) review administrative barriers to inflows of FDI in 32 least developed countries (LDCs). A larger body of work examines the impact of administrative reform or liberalization of regulation on either inflows of FDI or the FDI decision process (Gastanaga, Nugent and Pashamova, 1998; Globerman and Shapiro, 2003; Loree and Guisinger, 1995; Sin and Leung, 2001; Taylor 2000; Trevino, Daniels, and Arbelaez, 2002).

There are few empirical analyses of the determinants of liberalization of laws and regulations affecting inflows of FDI. A study by the United Nations Centre on Transnational Corporations in 1991 looked at changes in FDI policies in 46 developed and developing countries over the years 1977-1987. It constructed a data base of changes in seven categories of regulation affecting FDI, including both restrictions and incentives. The study concluded that there was "[A]n unmistakable liberalization of foreign direct investment policies in all categories of nations" over the 1980s, with the largest number of policy changes per country occurring in the newly industrializing countries (UNCTC, 1991, p. 59). While the author argued that the recession of the early 1980s, the relative decline in the position of developing countries, the increased tightening of the market for loan finance to developing countries, and a generally increased climate of competition for FDI all contributed to the increase in liberalization, the empirical analysis focuses on the impact of liberalization on future flows of FDI rather than its determinants.

Discussing the globalization of financial markets, Benjamin Cohen (1996, p. 278) asks a very relevant question about the motivations for state behaviour: "Were states operating

as classic rational unitary actors, single-mindedly competing within systemic constraints to maximize some objective measure of national interest? Or were other, more subtle forces at work to shape government preferences and perceptions?"

Cohen's question certainly applies to the widespread liberalization of FDI policy in developing countries during the 1990s. On the one hand, it is possible that liberalization reflects a "rational" policy making process, a decision that the benefits of increased flows of FDI are greater than the costs. As Geoffrey Garrett (2000, p. 943) argues, "…increasing costs of closure probably have been the major motivation for liberalization in the arena of foreign direct investment…"[5] Thus, one possibility is that policy makers in developing countries reacted independently to changed technological and economic conditions and decided that liberalization to promote increased inflows of FDI was in the national interest.

Every economic argument, however, is "two-handed". It is also possible that policy-makers in developing countries responded to other "subtle" (or not so subtle) forces shaping their preferences and perceptions. External forces rather than a drive for efficiency may have motivated the widespread liberalization of FDI policy in developing countries during the 1990s (Cohen 1996; Garrett, 2000). External forces could include both coercive pressures to adopt neoliberal economic policies and/or emulation of actions taken in other comparable countries, a process of diffusion. It is important to note that it is possible for these views to be complementary as well as competing. Policy makers can be influenced by actions taken in other states or external political pressure and still make "rational" decisions based on the perceived "national interest".

[5] Put differently, "[T]he case for liberalizing FDI is similar to the case for liberalizing trade: under the right conditions, freer FDI leads to a more efficient allocation of resources across economies and, where markets are not distorted, within a host economy in the arena of foreign direct investment" (UNCTAD, 2003, p. 104).

What motivates liberalization?

A "rational" decision process

FDI can contribute to economic growth and development. It can add to fixed capital formation and have a positive balance-of-payments impact without the risks of debt creation or the volatility associated with short term portfolio capital flows. It can bring technology, know-how, managerial skills, technology and access to markets. It can increase the efficiency of local firms and the competitiveness of local markets (Gastanaga, Nugent and Pashamova, 1998; Javorick, 2004; Noorbakhsh, Paloni and Youssef, 2001; UNCTAD, 1999).

However, as Theodore Moran (1998) notes, FDI can have both malign and benign effects. It may lower domestic savings, crowd out domestic producers, drain capital from the host country, introduce inappropriate technology and constrain managerial and technological spillovers to the host country. As noted above, a "rational" decision to liberalize FDI policy assumes that the benefits of increased flows of FDI will outweigh the costs. The question, then, is the conditions under which that assumption is likely to be true.

While FDI can bring a wide range of potential benefits, transfers or spillovers of management, skills, know-how, organizational capabilities and technology are of particular interest to developing countries. A number of studies have found that the probability of spillovers taking place is a function of the host country's absorptive capacity which, in turn, is a function of the level of economic development, the degree of education of the workforce and the extent of competition in the host economy (Blomstrom, 2002; Kokko and Blomstrom, 1995; Lim, 2001; UNCTAD, 1999). Thus, one would expect policy makers to be more likely to assume that increased flows of FDI are in the national interest – and thus be more likely to liberalize – in countries with higher levels of development and better educated labour forces.

FDI, however, can bring a number of benefits beyond spillovers or transfers. In many cases immediate effects such as increased investment or employment may be just as important. There is increasing recognition that TNCs can make a significant contribution to export capabilities and increased concern about export competitiveness in many developing countries (UNCTAD 2002).

At present, all developing countries maintain some form of application or approval process for FDI: no country offers an unlimited right of entry to foreign investors (UNCTAD, 2003). Furthermore, as noted above, developing countries' confidence in their ability to deal with foreign investors on favourable terms has increased markedly in the past two decades. Thus, policy makers may now believe that they can achieve their objectives vis-à-vis foreign investors through negotiation rather than regulation. As bargaining power is, at least in part, a function of market size, countries with larger markets may be more likely to believe that they can drive a bargain where the benefits of FDI are greater than the costs and thus be more likely to liberalize.

Coercion and emulation

More "subtle forces" in the form of external pressures could also be responsible for liberalization of FDI policy in developing countries. Neoliberalism – a belief in markets, privatization, deregulation and open economies which took hold in the United States and United Kingdom during the 1980s – may have been "imposed" on developing countries (altering policy makers' preferences) as a result of economic dependence on the United States or on international institutions such as the World Bank and IMF. Policy liberalization also could have resulted from a process of diffusion, with policy makers' perceptions and preferences altered by actions taken in other countries of interest such as those in the region or those regarded as competitors.

That said, distinguishing empirically between these two competing categories of explanation is difficult at best: "It is a common problem in the literature on contagion, financial and other wise, that the simultaneity of policy initiatives in different countries may reflect not the direct influence of events on one country on another countries but a tendency for decision makers to respond similarly to economic and political events not adequately controlled for in the analysis" (Eichengreen, 2001, p. 350). The conceptual problem is exacerbated by the limitations of cross-sectional analysis.

While this article will not test a diffusion hypothesis directly, the analysis includes two sets of explanatory variables. The first is consistent with a rational efficiency explanation for liberalization. It contains indicators of national characteristics that would lead policy makers to believe that their countries would benefit from increased flows of FDI, that liberalization of FDI policy – either a loosening of restrictions or an increase in incentives – reflects a judgment that a country will benefit from either more FDI or fewer restrictions on existing investment. The second set of indicators is consistent with an externally imposed motivation for liberalization, with the imposition of a neoliberal ideology through pressure from either the United States or international institutions. As will be discussed below, control variables are also included in the analysis.

The determinants of liberalization

This study reviews two sets of determinants of liberalization of FDI policy. The first assumes that liberalization reflects a "rational" judgment by policy makers that their country will benefit from either more FDI or fewer restrictions on existing investment, that there is "an opportunity cost of closure" in terms of lost efficiency. The second assumes that liberalization results from the external imposition of a neoliberal economic ideology. I also include a number of control variables in the analysis.

Opportunity costs of closure

- *Country size*. There are two reasons to believe that country size will be positively related to liberalization. First, as discussed above, developing countries in general have become more confident of their ability to maintain a positive benefit-cost ratio for FDI through negotiation with foreign investors. One clear conclusion of empirical research on the determinants of FDI is that variables related to market size dominate (Nunnenkamp and Spatz 2002). Thus, *ceteris paribus*, larger countries are likely to have greater bargaining power vis-à-vis investors and may be more likely to liberalize, substituting negotiation for regulation. Second, larger markets are more likely to attract market-seeking FDI, and market-seeking FDI is more likely to result in technological and managerial spillovers – by developing forward and backward linkages – than that which is strictly export oriented. (A possible counter argument is that the greater bargaining power of larger countries may allow them to maintain restrictions if so desired. However, given the general tendency towards deregulation and liberalization, that is unlikely to dominate the first two arguments.)
- *Level of development*. As noted above, there is a general consensus that one of the primary benefits of FDI – managerial and technological spillovers – are more likely to occur at higher levels of development as the absorptive capacity of the host country is higher and the "gap" between foreign investors and local firms lower. Furthermore, it is reasonable to argue that the wealthier developing countries should have more developed public sector capabilities and institutions and thus be able to obtain greater benefits from FDI and be more likely to liberalize. However, *ceteris paribus*, it is also possible that less developed countries recognize a greater need for FDI and thus will be more willing to liberalize restrictions and offer incentives or guarantees to attract TNC investment. On balance, the first two arguments should dominate and a country's level of development should be positively related to the propensity to liberalize.

- *Growth of GDP.* Policy makers in countries experiencing economic growth are more likely to believe that increased investment, including FDI, will have a positive impact. As important, distributional issues may be minimized in a rapidly growing economy and thus opposition to FDI may be muted. Thus, growth of GDP should be positively related to the tendency to liberalize.
- *Trade openness.* Recent studies have rejected the older argument that "tariff jumping" is an important explanator of FDI and that trade and FDI are substitutes. James Markusen (1997) concludes, at least for a relatively skilled, labour-scarce economy, that FDI and trade can be complementary to one another. He notes that trade and investment are not substitutes in that they often have opposite effects on important variables and that trade and investment considered jointly have different effects than either alone. That being the case, a country's openness to trade should be an indicator of policy makers' perceptions that linkages to the world economy have a positive effect on growth and development and that additional FDI would be beneficial. Thus, there should be a positive relationship between trade openness and the propensity to liberalize FDI policy.
- *Human resource capabilities.* As discussed above, higher levels of human resource capabilities are indicative of higher levels of absorptive capacity on the part of the host country and thus, a higher probability of significant spillovers of managerial techniques and technology to host country firms. Thus, in countries with higher levels of human resource capabilities, policy makers might believe that increased flows of FDI will be beneficial. It is also reasonable to argue that higher levels of human resource capability should be reflected in the public as well as the private sector and that countries with higher levels of capabilities should be more confident of their ability to negotiate with foreign investors. There should be a positive relationship between human resource capabilities and the propensity to liberalize FDI policy.

- *Democracy.* There have been a number of studies associating democracy with capital account liberalization (Eichengreen, 2001). While there are counter arguments, a democratic process may allow resolution of social conflicts that would otherwise lead to restrictions – that is, it should be more difficult to maintain restrictions on inflows of FDI which benefit a small minority of citizens (e.g. domestic industries threatened by foreign investors) in a democracy. That being said, trade and investment policy often benefits affected interest groups, even in large capitalist democracies. Thus, it is difficult to predict the effect of democracy on the propensity to liberalize FDI policy.

External factors affecting decision makers' perceptions

- *Dependence on the United States.* During the 1980s and 1990s, the Government of the United States strongly supported a neoliberal economic policy including deregulation, privatization and openness to the world economy. It is reasonable to argue that policy preferences of the dominant economic power have an impact on policy preferences in poorer countries, especially to the extent that those countries are dependent on the United States as an export market or for inflows of FDI. Thus, to the extent a developing country is dependent on the United States economically – in terms of its exports or inflows of FDI, for example – it might be more likely to liberalize FDI policy.
- *Dependence on international institutions.* Both the World Bank and IMF were strongly pro-market and pro-liberalization during the period of this study. The IMF in particular pressed an agenda of deregulation and liberalization on developing countries as conditions accompanying their loans. Thus, to the extent that a country is obligated to the IMF or the World Bank, it might be more likely to liberalize FDI policy.

Control factors

- *FDI penetration.* As discussed below, the data base used in this study is "left censored" in that the first year for which data are available is 1992. While there is every reason to believe that the "great wave" of both portfolio capital and direct investment liberalization in developing countries occurred during the 1990s (Brune et al., 2001; Eichengreen, 2001), it is necessary to control for the possibility of prior liberalization of FDI policy. Furthermore, the data used in this study measure changes in policy rather than the level of policy openness at any point in time; there is no indicator available of the level of FDI policy liberalization in each country at the start of the study. The level of FDI stocks normalized by GDP is used as a proxy for relative openness at the start of the period. The assumption is that, *ceteris paribus*, countries with higher levels of FDI penetration relative to the size of the economy were more likely to be more open to FDI in the past.
- *Growth of FDI.* Geoffrey Garrett (2000) argues that, at least in the case of portfolio capital, policy changes may lag "facts on the ground". Given the information revolution's impact on the relative ease of moving capital across borders and the difficulty that individual countries have in controlling portfolio flows, liberalization may be technologically determined, i.e. it may reflect the reality of increased flows into a country. While FDI represents a "tangible" cross-border flow and is thus much easier for a host country to control, it is still possible that liberalization is a *de jure* reflection of a *de facto* change. Thus, a relationship between the growth of FDI prior to the start of the period encompassed by the data and liberalization would be an indication of legitimization of *de facto* change.
- *Resource dependence.* Many of the major exporters of minerals and petroleum nationalized FDI at the well-head or mine in the late 1970s and then developed contractual arrangements for the involvement of TNCs during the 1980s. Thus, to the extent that a country is dependent on

mineral exports (including petroleum) it should be less likely to report changes in FDI regulations during the 1990s.

The data

The UNCTAD database contains the *number* of annual changes in each of eight categories of national laws and regulations affecting inflows of FDI during the decade from 1992 to 2001. The categories, defined in appendix 1, are: foreign ownership; sectoral restrictions; approval procedures; operational conditions; foreign exchange; promotion including incentives; guarantees; and corporate regulations. There are two observations for each category-country-year: the number of more and of less favourable FDI policy changes (i.e. liberalizing and restricting). It should be clear that what is measured are *changes* in a country's openness to FDI rather than its level of openness at any point in time.

There are a number of reasons to be concerned about the accuracy and validity of the raw data as a comparative measure of change in FDI policy across countries. First, there is no information about the magnitude or extensiveness of change. Every liberalizing or restricting change is coded as one event regardless of whether it is a relatively major or relatively minor change. Second, there is no way to know if reporting is consistent across countries. It is possible, for example, that three changes in sectoral restrictions in a single year are reported as three separate changes by country A and only one by country B. As a result, there are serious questions about whether a continuous scale is an accurate or valid measure of the extent of regulatory change: does a score of "3" for a given country-category-year actually represent three times the "amount" of change of a score of "1"?

To attempt to minimize these problems and facilitate cross-sectional analysis, each category-country-year score was recoded to take one of three values: -1 if there were one or more restrictive changes; 0 if there was no change; and +1 if there were liberalizing changes. (Only 57 of the 1,086 regulatory

changes in the sample countries were restrictive and there were only 13 instances in which a single country reported both liberalizing and restrictive changes in a single category in a single year. In these cases, the net score was used as a basis for coding.) While recoding results in some loss of information, it should allow for a more accurate representation of differences in changes in FDI policy across countries.

Country sample

The objective of this analysis is to identify the determinants of liberalization of FDI policy in developing countries. To that end, three categories of countries were dropped from the UNCTAD data base: developed countries; those with cumulative inflows of FDI of under $50 million between 1991 and 2001; and those classified as tax havens by the OECD. That leaves a sample of 116 developing countries and economies in transition distributed as follows. (A country list is attached as appendix 2.)

Africa	32
Latin America and the Caribbean	22
Middle East	11
Central Asia	8
Asia and Pacific	24
Central and Eastern Europe	19

FDI policy changes

The decade encompassed by the data base (1992-2001) was one of widespread liberalization of FDI policy in the developing countries. Table 1 reports the total number of liberalizing ("more") and restrictive ("less") policy changes over the ten year period (the "raw" data) by category and region. Ninety-five per cent of the changes were liberalizing: 1,029 of the total of 1,086.

The most striking finding is that the single most important policy category over the decade was positive attempts to attract FDI in the form of promotion and incentives rather than a

Table 1. Changes in FDI policy, by region, 1991-2001
(Number)

Region	Africa	Latin American and the Caribbean	West Asia	Central Asia	South, East and Southeast Asia	Central and Eastern Europe	Total
Ownership							
more	2	9	11	1	18	6	47
less	0	0	0	0	1	3	4
Sectoral							
more	21	40	14	14	94	37	220
less	0	2	1	1	1	3	7
Approval							
more	9	6	8	5	18	6	52
less	0	0	1	0	2	1	4
Operational							
More	29	11	20	6	63	33	164
Less	0	0	1	1	1	2	5
Foreign exchange							
more	10	6	1	2	15	12	46
less	2	1	0	1	1	2	7
Promotion							
more	64	37	19	14	107	83	328
less	1	6	0	2	1	7	22
Guarantees							
more	13	33	24	8	27	21	126
less	0	0	0	0	1	0	1
Regulations							
more	6	5	3	4	20	8	46
less	0	2	0	0	1	4	7
Total							
more	154	147	100	54	362	206	1029
less	3	11	3	4	14	22	57

Source: UNCTAD database.
[a] Includes Pacific region not reported separately.

loosening of restrictions. Promotion and incentives account for almost one-third (31.5%) of the more liberalizing changes, loosening sectoral restrictions 21.4%, operational conditions 15.9%, and increasing guarantees 12.2%. These four categories account for over 80% of liberalizing FDI policy changes over the decade in question. Changes in regulations affecting ownership, approval procedures, foreign exchange and corporate regulations each accounted for only between four and five per cent of the total. I will return to the question of the importance of promotion and incentives below.

As noted above, given concerns about the accuracy and validity of the "raw" numbers of events, the data were recoded as –1, 0 and +1, reflecting de-liberalizing, no changes and liberalizing changes respectively in a given category-country-year observation. Table 2 contains the sum of the recoded country-year score (-1, 0, +1), by category. The distribution across categories parallels that of the raw data. Changes in promotion and other incentives designed to attract FDI account for just under one-third of total events. The regulatory categories with the highest reported frequency of change are sectoral restrictions, operational constraints and guarantees. Changes in ownership requirements, approval procedures, foreign exchange requirements and corporate regulations each account for only about five per cent of the total.

Table 2. Recoded events by category, 1992-2001
(Number and per cent)

Category	Number	Percentage
Ownership	40	5.7
Sectoral	143	20.3
Approval	38	5.4
Operations	102	14.5
Foreign exchange	37	5.3
Promotion	226	32.1
Guarantees	82	11.6
Regulations	36	5.1
Totals	704	100.0

Source: UNCTAD database.

The number of countries actually liberalizing a given category of FDI policy, however, varies considerably. At one extreme, 75% of the countries in the sample enacted new laws

or regulations providing promotions or incentives to attract FDI at least once during the decade in question. Fifty-eight per cent of countries liberalized sectoral restrictions, 51% provided guarantees and 47% liberalized operational conditions – again at least once during the decade. On the other hand, only 29% liberalized ownership regulations, 26% application procedures, 25% foreign exchange regulations and 22% corporate regulations.

It is important to reiterate that the data measure the number of laws or regulations enacted or changed over the period 1992-2001 rather than the level of a country's openness to FDI. Furthermore, I do not have data that would allow me to characterize the FDI policy at the start of the period. Thus, it is entirely possible that the relatively low number of countries liberalizing ownership regulations during the 1990s, for example, reflects earlier liberalization of this constraint. (I attempt to control for this problem statistically.)

Summing the recorded data across all eight categories and all ten years provides an indicator of the total net change in FDI policy for each country over the entire decade (Total). The value for Total in all but two of the countries in the sample was one or greater – that is 114 of the 116 countries in the sample were net liberalizers across all categories of FDI policy over the period from 1992-2001. (One country had a score of zero and another minus one.) The mean country recorded six (net) liberalizing changes in FDI policy over the decade and the median four. (Again, only five per cent of all of the changes recorded were deliberalizing.)

The distribution of Total across regions is shown in table 3. As can be seen, Asia – Pacific and Central and Eastern Europe (including Russia and Ukraine) stand out as having a higher per-country average than the mean of 6.1. Put differently, Asia –Pacific accounts for 31% of the country-year changes and 21% of the countries in the sample; the ratio of the percentage of events to percentage of countries is 148. It is 125 for Central and Eastern Europe.

China (32), India (27) and Viet Nam (27) were the three countries in the sample with the highest scores for Total. However, virtually all of the major Asian countries score well above the sample average. In the case of Central and Eastern Europe, while there are few outliers, many of these transitional countries had a higher than average tendency to liberalize FDI policy.

Table 3. Total by region, 1992-2001
(Number)

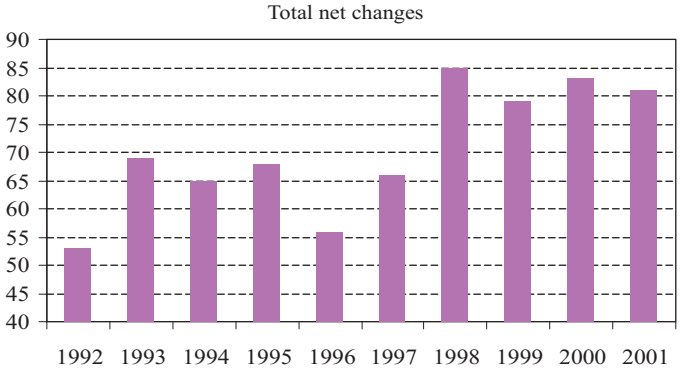
Region	Total	Number of economies	Total/ economy	Event/ economy ratio[a]
Africa	128	32	4.0	66
Latin American andCaribbean	118	22	5.4	88
Mid-East	63	11	5.7	100
Central Asia	37	8	4.6	71
Asia-Pacific	219	24	9.1	148
Central and Eastern Europe	139	19	7.3	125
Total	704	116	6.1	

Source: UNCTAD database.
[a] Percentage of changes in a region divided by percentage of economies in a region.

The number of net total regulatory changes by year is shown in figure 1. The trend over time shows two peaks over the decade, the years from 1993 to 1995 when the number of net regulatory changes ranged from 65 to 70 per year and 1998 to 2001 when the number of net changes ranged from 85 to 79. Analysis of trends over time is beyond the scope of this analysis.

That said, it is not unreasonable to assume that efforts to liberalize FDI policy in developing countries were limited and sporadic before the late 1980s as there is general consensus that the "great wave" of liberalization occurred during the 1990s. Given that assumption, several (admittedly speculative) inferences can be drawn from the data.

Figure 1. Total, by year, 1992-2001
(Number)



Source: UNCTAD database.

First, many developing countries attempted to attract FDI by *both* loosening policy restrictions and increasing investment incentives. More specifically, two-thirds of the countries (78) recorded at least one liberalizing change in promotion and incentives in at least one of the other regulatory categories during the decade. While beyond the scope of a cross-sectional analysis, that is consistent with UNCTAD's "three generation" concept of investment promotion policy: liberalization of regulation in the first stage, followed by investment promotion in the second and specific targeting of investors in the third (UNCTAD, 2001).

Second, while virtually every country requires that foreign investments gain approval prior to entry, only 26% of the countries liberalized application procedures during the decade. Thus, even though many of the countries liberalized sectoral restrictions (58%) and operational conditions (48%), the vast majority did not make changes to their approval process.

Multivariate analysis

The approach taken in this preliminary analysis of the UNCTAD data base is cross-sectional. That is, policy changes for each country are summed over the ten years and the analysis examines the decade as a whole.

A correlation matrix of the eight regulatory categories is shown as table 4.[6] As can be seen, there is a very high degree of inter-correlation among the eight categories: the correlation coefficient is significant in all but three of the cells.[7] The relatively high correlation between promotion and operations (0.51) and sectoral (0.38) confirms the tendency of countries to attract FDI though both removing restrictions and offering positive incentives.

Table 4. Correlation matrix — regulatory categories
(N = 116)

	own	sec	app	ops	forex	prom	guar
own	1.0000						
sec	0.3721	1.0000					
	0.0000						
app	0.2685	0.2846	1.0000				
	0.0036	0.0020					
ops	0.3414	0.4085	0.4655	1.0000			
	0.0002	0.0000	0.0000				
forex	0.2719	0.4387	0.4466	0.5577	1.0000		
	0.0032	0.0000	0.0000	0.0000			
prom	0.2632	0.3771	0.2173	0.5066	0.4386	1.0000	
	0.0043	0.0000	0.0191	0.0000	0.0000		
guar	0.2209	0.3083	0.0771	0.1323	0.2747	0.3128	1.0000
	0.0172	0.0008	0.4110	0.1568	0.0028	0.0006	
regs	0.3504	0.4483	0.2367	0.3732	0.5463	0.2005	0.2437
	0.0001	0.0000	0.0105	0.0000	0.0000	0.0310	0.0084
	regs						
regs	1.0000						

Source: author's calculations.

[6] Stata 8.0 was used for all statistical analysis.

[7] China is a clear outlier as its score for Total is 32, compared with a median of 4. India and Viet Nam are also outliers as their scores for Total are each 27. The matrix is robust as the virtually all of the correlations remain significant even if these three countries are deleted.

As Cronbach's Alpha for an unweighted index of the eight variables (Total) is quite high at 0.76, it is productive to look at the regulatory categories in aggregate. For any given country, Total could range from –80 if it had a deliberalizing regulatory change in each of the eight categories in each of the ten years to +80: in practice, the minimum is –1 and the maximum 32. Total is interpreted as the sum of category-years in which there was a net liberalizing regulatory change. The sum of Total for all of the countries in the sample is 704, i.e., there were 704 of a possible 1,160 country-years in which a net liberalizing event took place.

Independent variables[8]

The independent and control variables are operationalized as follows:

- country size: GDP in current $US in1991; Population in 1991;
- level of development: GDP per capita (GDP/Capita) in current $US in 1991;
- growth in GDP: growth in GDP during 1987-1991;
- trade openness: exports + imports/ GDP for 1991;
- human resource capabilities: second level school enrollment ratio for 1991;
- democracy;[9]
- dependence on the United States: the proportion of a country's exports going to the United States in 1991;
- dependence on international institutions: presence or absence of IMF obligations in 1991;
- FDI penetration: FDI stock/GDP for 1991;
- growth in FDI: growth in stocks of FDI during 1987-1991;
- resource dependence: the percentage of exports accounted for by minerals (including petroleum) in 1991.

[8] Data sources include: IMF Financial Statistics; Penn World Tables; UNCTAD's FDI Data Base; World Bank Development Indicators; and the Polity IV Data File.

[9] Democracy is computed from the Democratic and Authoritarian scores for each country in the Polity IV file. Each ranges from 1 – 10 and, as is the convention, Authoritarian is subtracted from Democratic to compute a variable with a range of –10 to +10.

Unless otherwise noted, data for the independent variables were collected for 1991, immediately prior to the period encompassed by the database.

Table 5 contains pair-wise correlation coefficients for Total and each of the predictor and control variables. The strongest bivariate relationships are found between the Total and country size (GDP), the measure of human resource capabilities (secondary school enrollment ratio) and the growth of FDI from 1986-1991. (GDP and per capita GDP are transformed logarithmically.) None of the other independent variable's coefficients with Total are significant.

Ordinary least squares regression results are shown in table 6. Three points should be noted before the regression results are discussed. First, the range of the dependent variable is limited. In theory it could vary from – 80 to + 80; in practice it ranges from -1 to 32. However, as results are virtually identical if the bounded nature of the dependent variable is taken into account (Tobit), OLS is reported. Second, due to data limitations, the sample of countries used in multivariate analyses ranges from 64 to 79 of the 116 countries drawn from the UNCTAD database. (There are no missing values for any of the dependent variables, Total or FDI policy categories.) The deletions are not random as, at a minimum, all eight of the Central Asian countries and ten of the nineteen Eastern and Central European countries are not included in the analysis. Last, as tests indicate heteroskedasticity (Cook-Weisberg), results are reported for robust estimates using the Huber – White correction.

Model 1 contains four explanatory variables (lGDP, lGDP/CAP, Sch and Open) and FDIGDP as a control variable. A total of 79 countries are included in the analysis. The independent variables account for 63% of the variance of Total.[10] Market size (lGDP) is the single most important determinant of

[10] As robust regression is used to correct for heteroskedasticity, adjusted r-squares are not available.

Table 5. Correlation matrix

	total	lgdp	lgdpcap1	open	sch	fdigdp	grfdi
total	1.0000						
lgdp	0.6277	1.0000					
	0.0000						
lgdpcap1	-0.0086	0.3847	1.0000				
	0.9318	0.0001					
open	-0.0958	-0.1454	0.4509	1.0000			
	0.3803	0.1896	0.0000				
sch	0.2066	0.3153	0.6449	0.2678	1.0000		
	0.0319	0.0015	0.0000	0.0138			
fdigdp	-0.0891	0.0482	0.2871	0.6152	0.0868	1.0000	
	0.3830	0.6480	0.0055	0.0000	0.4027		
grfdi	0.3960	0.5715	0.3040	0.4734	0.1680	0.4768	1.0000
	0.0001	0.0000	0.0038	0.0000	0.1095	0.0000	
grgdp	0.1670	0.1928	-0.0054	0.1857	-0.2913	0.2871	0.4196
	0.0871	0.0547	0.9575	0.0907	0.0028	0.0050	0.0000
minexs	-0.0052	-0.0202	0.0265	-0.0540	-0.0112	0.0115	-0.1001
	0.9666	0.8721	0.8328	0.6875	0.9281	0.9273	0.4204
perus	-0.0595	0.1020	0.0849	0.0565	-0.0032	0.1460	0.2408
	0.5863	0.3589	0.4452	0.6253	0.9769	0.1798	0.0264
Dem	0.1399	0.1959	0.1447	-0.0565	0.1636	0.0377	0.0960
	0.1566	0.0642	0.1736	0.6254	0.1093	0.7285	0.3763
	grgdp	minexs	perus	Dem			
grgdp	1.0000						
capact	0.3870						
	0.0046						
minexs	-0.1097	1.0000					
	0.3808						
perus	0.1198	-0.1558	1.0000				
	0.2775	0.2153					
Dem	-0.1494	0.0797	0.3311	1.0000			
	0.1485	0.5313	0.0029				

Source: author's calculations.

Table 6. Regressions on Total

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
lgdp	3.141***	2.815***	2.740***	3.142***	2.929***	2.557***	3.563***
	(.442)	(.406)	(.443)	(.439)	(.430)	(.431)	(.672)
lgdp/cap	-3.854***	-3.286**	-2.433**	-3.582**	-3.260**	-2.966**	-3.227**
	(.043)	(1.056)	(.885)	(1.102)	(1.072)	(1.218)	(1.021)
sch	.106***	.098***	.090***	.095***	.099***	.089***	.087***
	(.023)	(.022)	(.024)	(.022)	(.024)	(.024)	(.024)
open	.030**	.028**	.029**	.053***	.034**	.031**	.043**
	(.012)	(.010)	(.011)	(.020)	(.012)	(.012)	(.016)
fdi/gdp	-.027	-.030	-.049	-.020	-.085	-.036	-.024
	(.027)	(.025)	(.028)	(.030)	(.027)	(.025)	(.022)
china		12.508***	14.268***	12.161***	12.075***	14.028***	16.359***
		(2.533)	(2.519)	(2.493)	(2.074)	(2.726)	(2.950)
minexp			.021				
			(.019)				
Imf91				.002			
				(.005)			
ex-US					-2.216		
					(2.074)		
dem						.084	
						(.068)	
grfdi							-.000
							(.000)
constant	-46.223***	-42.147***	-46.450***	-49.695***	-44.792***	-38.311***	-59.846***
	(7.184)	(6.423)	(7.026)	(7.223)	(6.835)	(6.105)	(3.051)
F	24.51***	24.40***	23.62***	21.67***	20.72***	17.90***	22.10***
r-sq.	.627	.670	.747	.700	.687	.669	.692
N	79	79	64	73	74	70	77

Source: author's calculations.
*** p <= .001 ** p<= .01 * p<=.05
Standard errors are shown below the coefficient in parenthesis

a country's overall propensity to liberalize, using *either* GDP or population as a measure it alone accounts for 39% of the variance of Total.[11] The secondary enrollment ratio as a proxy for human resource capabilities and trade openness are both highly significant and positive. GDP/Capita is significant and negative. The coefficient of the control variable (FDIGDP) is not significant.

GDP/Capita (a proxy for the level of development) was not significantly correlated with Total on a univariate basis. Furthermore, in a regression containing population as a measure of country size and GDP/Capita, both are significant and positive, accounting for 47% of the variance in Total. However, once the secondary enrollment ratio is entered into this equation, GDP/Capita becomes negative and insignificant. As noted above, in the equation containing GDP as a proxy for country size, GDP/Capita is negative and significant.

It is difficult to interpret the role of the level of development in this analysis. It is not significant in itself (in a univariate regression equation) and it turns significant and negative in interaction with GDP as a measure of country size. However, if population is used as a proxy for country size, its coefficient is significant and positive. The coefficient becomes negative once the school enrollment ratio is introduced into the equation (the two variables are highly correlated). Thus, the most that can be said is that there is an indication that larger countries are more likely to liberalize if they are more developed (i.e. a higher GDP/Capita) but that effect is swamped by the proxy for human resource development.

Model 2 adds a dummy variable to control for China which is a clear outlier (Total = 32). As can be seen, aside from a slight increase in the variance explained (67%), the results are virtually identical to model 1. (The coefficient for China is significant and positive.) The OLS regressions are robust as

[11] Standardized coefficients (betas) allow a direct comparison: lgdp (.801); lgdpcap (-.673); sch (.443); open (.260); and fidgdp (-.110).

the coefficients are very similar when the three clear outliers (China, India and Viet Nam) are dropped from the equation. Multicollinearity does not appear to be a problem: the variable inflation factor (VIF) for each of the independent variables in models 1 and 2 is under three and the mean VIF two or less.

Models 3 through 7 add other independent variables to the base equation (model 2), mineral exports, IMF obligations, United States export dependence, democracy and growth of FDI. None are significant, even at the .10 level. It should be noted that the sample size varies for models 3 through 7 due to missing data. (The equation for growth in GDP is not reported.)

As noted above, due to missing data (independent variables), all of the ex-Soviet republics in Central Asia are dropped from the regressions, as are over half of the Central and Eastern European countries. However, data for GDP and per capita GDP are available for most of the Central and Eastern European countries and half of the Central Asian states. A regression including both of these variables as well as a dummy variable, coded one for a transitional or ex-socialist country, is of interest. The three independent variables account for 51% of the variance (adjusted r-squared) and the dummy variable is positive and significant. Thus, the economies in transition were more likely to liberalize, holding country size and level of development constant.

Regressions were also run for each of the four most important categories of FDI policy individually: operational constraints; sectoral limitations; promotion and incentives; and guarantees. In each case, market size (GDP) was the primary determinant of liberalization of FDI policy. There are some differences among the four, however (regression results are not reported). In the regression equation for operations, open (exports plus imports over GDP) was not statistically significant and both export dependence on the United States and the growth of FDI (over 1986 through 1991) were significant at the .05 level or better. The only difference observed for sectoral limitations is that open was not significant. The control variable

for China was not significant for either promotion or guarantees. Export dependence on the United States was significant for promotion. Last, the set of independent variables explained only 24% of the variance of guarantees, and the only significant explanators were GDP, open and FDIGDP, which was negative.

Discussion

The single most important determinant of liberalization of FDI policy during the 1990s (1992 through 2001) is market size, with a strong positive impact; either GDP or population explains 39% of the variance of Total. The larger a country the higher the value of Total – the measure of overall liberalization; larger countries reported a larger number of category-years in which net liberalization was positive.

This analysis cannot confirm the specific mechanism linking country size and liberalization of FDI policy. However, at a minimum it would appear reasonable to argue that countries with larger markets are more likely to believe that the net benefits from additional inflows of FDI are likely to be positive. As noted above, this could be a function of bargaining power, a perception on the part of policy makers that objectives can be achieved through negotiation rather than regulation. It may also reflect the fact that larger countries are more likely to attract market-seeking FDI, which may entail a greater likelihood of spillovers than that which is resource or export oriented.

Countries that were more open to trade before the start of the period were more likely to liberalize FDI during the decade in question. That appears reasonable from a number of perspectives. First, trade openness indicates a general predisposition to economic openness, a belief that growth and development are enhanced by linkages to world economy. As noted above, recent research indicates that trade and FDI can be complements rather than competitors. Thus, trade openness should be an indicator of a belief that FDI and TNCs are net contributors to growth and development. Second, trade openness may lead to a concern for export competitiveness and an

appreciation of the roles that TNCs can play in generating export capabilities.

The importance of school enrollment ratios as a proxy for human resource capabilities reflects the fact that a country with a better educated work force is more likely to absorb potential spillovers of management and technology from TNCs and thus FDI is likely to be more highly valued. Thus, countries with higher levels of human resource capabilities are more likely to want to attract FDI through liberalization of regulation and/ or offering incentives and guarantees. Furthermore, school enrollment ratios should proxy public as well as private sector capabilities, and countries with a more educated public sector workforce may have more confidence in their ability to deal with TNCs on favourable terms.

The coefficient for GDP/Capita is more difficult to interpret. As noted above, it is not significantly related to Total on a univariate basis and the direction and significance of its coefficient appears to be a function of interaction with other independent variables. The most that can be said is that the fact that GDP/Capita is significant in an equation with population as a measure of country size does not contradict a hypothesis that spillovers are more likely at higher levels of development and FDI is thus seen as more attractive.

It is important to note that the data used in this study reflect changes rather than levels of openness, and the earliest year for which data are available is 1992. While FDIGDP in 1991 is used to attempt to control for the previous level of FDI, it is entirely possible that at least some of the wealthier countries liberalized before 1992. However, even when the wealthier countries are dropped from the regression, using GDP to proxy market size, the relationship between Total and per capita GDP is negative and significant. Further research is necessary to confirm and explain this finding.

None of the other independent variables were significant predictors of Total. However, export dependence on the United

States was significant in the equations for operational constraints and promotions and incentives. Thus, it is possible that external pressure in the form of coercion from the United States to adopt neoliberal economic policies played a role in at least these two aspects of FDI policy change. Further research is needed to fully explore this possibility.

Conclusions

Changes in FDI policy over the decade encompassed by this study were overwhelmingly liberalizing: 95% of the 1,086 individual policy changes either lessened restrictions on inflows of FDI or provided additional promotions and incentives to attract increased flows. All but two of the countries (Kazakhstan and Kenya) out of the 116 studied were net liberalizers.

Two alternative explanations for the liberalization of FDI policy were discussed. The first argues that liberalization reflects a "rational" decision on the part of host country policy makers, a response to changed technological and economic conditions or the increasing "costs of closure" for FDI. In this view, liberalization reflects a belief that lower barriers and increased flows of FDI are in the national interest. The second argues that liberalization was a response to external factors, specifically, the spread of neoliberal ideology possibly through pressure from either the United States or international financial institutions.

The results of this analysis are certainly consistent with the efficiency or "costs of closure" argument. Liberalization of FDI policy is a function of market size, trade openness and human resource capabilities, controlling for FDI penetration. As noted, the role of the level of economic development (GDP/Capita) is difficult to interpret. It appears that policy makers in larger countries with higher levels of human resource capabilities where the benefits of FDI could reasonably be expected to outweigh the costs were interested in attracting more FDI, either through liberalization of regulation or offering new incentives and guarantees.

The analysis provides only limited support for an external pressure explanation of liberalization.While none of the variables operationalizing the external pressure explanation were significant as explanators of Total, it should be noted that export dependence on the United States was significant in the equations for operational constraints and promotion. That at least raises the possibility that external pressure plays a role in FDI policy liberalization, at least for these two categories of policy. However, given the limitations of cross-sectional analysis the most that can be said for the external pressure argument is the old Scottish verdict of "not proven".

While there are other possible modes of diffusion of neoliberal ideology (such as emulation of the actions of regional neighbors or competitors), it is not possible to test a diffusion hypothesis through cross-sectional analysis. Those issues must be left for further research.

Four policy categories accounted for over 80% of the changes: promotion and incentives (31.5%); sectoral restrictions (21.4%); operational conditions (15.9%); and guarantees (12.2%). The most important policy change in terms of frequency of occurrence was increased incentives offered to investors, e.g. tax reductions, training, infrastructure provisions. Seventy-five per cent of the countries in the sample offered new promotions and/or incentives at least once during the period 1992 to 2001. Furthermore, countries that offered increased promotion were also likely to reduce operational barriers and sector restrictions limiting inflows of FDI; the simple correlation between promotion and operations is .51 and that for sectoral .38 (table 4).[12]

That raises an important policy question: are reducing operational restrictions and/or sectoral limitations a substitute

[12] A factor analysis not separately reported confirms the relationship between promotion and operations, which are the only two variables "loading" on the second of three factors which together account for about half of the variance of the eight categories of FDI policy considered in this study.

for increasing promotions and incentives? As this analysis looks at the determinants rather than the effects of liberalization, nothing can be said about the relative impact of reducing restrictions versus increasing incentives as a means of attracting further flows of FDI. However, the results do raise the possibility that the two are seen, at least to some extent, as substitutes by policy makers. If that is the case, given that many studies of the impact of promotions and incentives conclude that it is a zero-sum game across host countries, policy makers might be encouraged to consider liberalizing restrictions rather than offering increased incentives as a means of attracting increased inflows of FDI. Again, it is important to note that no conclusions can be drawn about the substitutability of liberalization of restrictions and promotions based on the data and analysis in this study. The question, however, is certainly of interest.

Further research is required to answer a number of the questions raised in this analysis. Longitudinal analysis, specifically some form of cross-sectional time-series analysis, is needed to deal more rigorously with both the question of the relative importance of external pressure (coercion) and diffusion as an explanation of policy liberalization. It would also be of interest to use the data to pursue studies of the impact of liberalization on future flows of FDI. ■

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Appendix I
Category definitions

Incentives (promotional): measures providing incentives, fiscal and/or financial, creating special zones with facilities for FDI operations, establishing or reinforcing national institutions entrusted with the promotion of foreign investment, and setting up permanent or ad hoc councils that include foreign investors in their membership and offer advice to governments. Foreign ownership: allowing foreign investors to own companies or shares, properties (moveable or otherwise) and assets.

Approval procedures: introducing, streamlining or lifting of procedure for approval, authorization, admission and/or establishment of FDI and foreign investors (companies, branches, subsidiaries). Notice requirements are also included here.

Operational conditions: introducing, easing or lifting of performance requirements imposed on FDI and/or foreign investors, post establishment treatment, discrimination, internal administrative encumbrances etc.

Guarantees (protections): through internal and international mechanisms, in areas of intellectual property rights laws, dispute settlement, ownership and other proprietary rights and interests, and protection from subsequent changes to laws and regulations adversely affecting the interests of foreign investors. Movement of capital, including guarantees to repatriation and transfer of capital, income, profits and royalties.

Sectoral liberalization: access for the first time to an industry or further liberalization of various sectors and sub-sectors: *services*, including, financial, banking and telecommunications; *manufacturing;* and *natural resources*, including energy mining and hydrocarbon.

Corporate regulation: corporate governance, stock exchange, financial markets laws.

Foreign exchange: controls over exchange, including permission to possess other currencies, and the amounts thereof.

Appendix 2 – list of economies*

Algeria	Argentina	Iran, Islamic Republic of	Armenia	Fiji	Bangladesh
Egypt	Bolivia	Jordan	Azerbajan	Guam	Brunei Darussalam
Morocco	Brazil	Kuwait	Georgia	Papua New Guinea	Cambodia
Sudan	Chile	Lebanon	Kazakhstan		China
Tunisia	Colombia	Oman	Kyrgyzstan		Hong Kong, China
Angola	Costa Rica	Qatar	Tajikistan		India
Botswana	Dominican Republic	Saudi Arabia	Turkmenistan		Indonesia
Burkina Faso	Ecuador	Syrian Arab Republic	Uzbekistán		Korea, Democratic People's Republic of
Cameroon	El Salvador	Turkey	Albania		Korea, Republic of
Congo	Guatemala	United Arab Emirates	Belarus		Lao People's Democratic Republic
Cote d'Ivoire	Guyana	Yemen	Bosnia and Herzegovina		Malaysia
Eritrea	Honduras		Bulgaria		Mongolia
Ethiopia	Mexico		Croatia		Myanmar
Ghana	Nicaragua		Czech Republic		Nepal
Guinea	Paraguay		Estonia		Pakistan
Kenya	Peru		Hingary		Philippines
Madagascar	Uruguay		Latvia		Singapore
Malawi	Venezuela		Lithuania		Sri Lanka
Mali	Barbados		Macedonia, the Former Yugoslavia Republic of		Taiwan Province of China
Mauritania	Cuba		Moldova, Republic of		Thailand
Mauritius	Jamaica		Poland		Viet Nam
Mozambique	Trinidad and Tobago		Romania		
Namibia			Russian		
			Federation		
Níger			Serbia and Montenegro		
Nigeria			Slovakia		
Senegal			Slovenia		
South Africa			Ukraine		
Swaziland					
Tanzania, United Republic of					
Uganda					
Zambia					
Zimbabwe					

Source: UNCTAD database.

* Economies are grouped by region.