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RISK AND FOREIGN DIRECT INVESTMENT IN EMERGING ECONOMIES: LESSONS FROM THE FORMER SOVIET UNION

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ABSTRACT: Emerging economies consider Foreign Direct Investment (FDI) to be an important part of economic growth. Emerging economies compete for FDI via policies and programs devised to encourage investment by reducing risks that cause investors to distribute risk to rival locations. Investors face many risks in emerging economies, yet little systematic inquiry exists into the relative importance that individual risks have when investors apportion FDI. Hence, it is difficult for host-countries to determine which risks to remedy, to assess investors demands for risk-related guarantees, to negotiate risk-relief for investors, and to appraise advice from professionals located in advanced western economies. This study analyses the correspondence between flows of FDI and assessments of emerging-economy risks by type and degree. Results are reported and the impact of risks on FDI flows into states of the Former Soviet Union (FSU) are broadly described so as to illustrate the substantial impact of significant risks.

INTRODUCTION

Foreign Direct Investment (FDI) has become a $2 trillion enterprise with governments competing for shares of the benefits. At stake is an economic force of some 37,000 multinational corporations, accounting for about 35% of the world's private-sector productive assets.

Emerging economies consider FDI to be an especially important part of the transition to economic growth largely because FDI can act as a powerful catalyst for economic change, bringing with it technology, management, access to foreign markets, and financial resources. Emerging economies compete for FDI primarily via policies and programs designed to attract FDI (Amirahmadi and Wu, 1994; Peitsch, 1995).

Policies aimed at attracting FDI typically focus upon reducing the risks that investors face in emerging economies: price and cost uncertainty, especially through inflation; political instability; infrastructure deficiencies; and market limitations. In general, the greater the risks, both in kind and intensity, the lower the level of FDI and the more distorted its spatial and sectoral distribution (Janeba, 1995; Spiegal, 1994).

Risks to investors in emerging economies are substantial (McCarthy et.al., 1993). Risks vary among these emerging economies as they vie for FDI. Thus, differences among emerging economies in flows of FDI into them should correspond to differences in the risks investors face in them. By estimating the concurrence between risks, by type and level, and the actual flows of FDI to emerging economies, it is possible to determine which risks are truly most (least) influential in the spatial allocation of FDI.

This paper tests the associations between levels of investors' risks, by type, and flows of FDI among emerging economies. In doing so, it reveals the risks most significant in determining levels of FDI flowing into them. The next section examines the risks western investors face in emerging economies. A review of investors' responses to risks follows. Results of this study subsequently are reported, and the effects on flows of FDI into the FSU due to risks are reviewed.

RISKS TO FOREIGN DIRECT INVESTMENT AND INVESTORS' RESPONSES

Four large-scale surveys of western firms' executives identified the following risks as the principal hazards that affect the spatial and sectoral allocation of FDI: (1) economic risk, (2) legal risks, (3) political risks, and (4) infrastructure risks (Welch,

1993; USDOC, 1992; Collins and Rodrik, 1991; Wakefield, in Kielmas, 1991). Economic risks center around host-countries' economic performance, especially inflation; access to international credit; and participation in international agreements for resolving FDI disputes. Legal risks stem from vague legal environments in which FDI laws are erratically enforced and the limits to enforcement are not clearly defined. Political risks are primarily the expropriation of assets and the reversal of government policies. Infrastructure risks result from incomplete and inferior transportation and communications networks.

In general, foreign investors reduce their exposure to risks by limiting the volume and direction of FDI. Typically, firms respond to risk by reducing their exposure through so-called "hedging strategies" and/or "internalization strategies." In hedging strategies, firms minimize risk either by diversifying holdings across products and places or by apportioning investments in capacity across places. In internalization strategies, investors absorb would-be foreign production into existing facilities in the face of exchange rate and price uncertainty. Thus, higher risks lead to lower foreign investment.

For example, legal risks such as quantitative restrictions on foreign firms' investment produce a "suboptimal" pace of entry and investment (Bartolini, 1995). Legal risks stemming from vague tax schedules produce inefficient allocations of capital (Janeba, 1995). Political instability reduces both the volume and rate of investment, although to different degrees for different industries (Spiegal, 1994).

Foreign investors are also sensitive to price and cost uncertainties, especially as a consequence of inflation and exchange rate fluctuations. Increases in a country's relative costs of production through inflation decrease the probability that investment will occur in that country (Stopford et al, 1991). This effect is greater for those industries that have higher fixed costs (Aizenman, 1994). When facing these risks, firms will delay their investment decisions and wait for more favorable conditions (Dixit, 1989).

For the emerging economies, then, securing optimal levels of FDI means reducing the risks that cause investors to distribute FDI among competing locations and inefficiently among sectors. To do so requires that they know which risks are clearly most important to investors.

DATA AND METHODOLOGY

This study analyses the correspondence between the flow of FDI into emerging economies and assessments of their risks as identified above. The intent is to reveal which risks are most influential in the flows of FDI.

The raw risk data are taken from Bascomb and Edwards (1993), who measured the "attractiveness" of 136 countries on the basis of their (1) economic performance, (2) market size, (3) resources, (4) political and overall risks, and (5) government regulations. They recorded a weighted composite score for 20 variables sub-divided among the 5 categories. The resulting scores were combined and scaled between 1 and 100 in order to produce an overall measure for each country. Details of the variables' composition are listed in Table 1.

Multiple risk variables for each risk category are assessed. The economic risk variables are inflation in the previous year, economic performance, and credit risk. The legal risk variables are regulatory ease, strength of government incentives, administrative aid, and government support. The political risk variables are total risk and simple political risk. The infrastructure risk variables are market mass and infrastructure density. Details of their construction are shown in Table 1, and will be discussed when reporting results. Complete information regarding their construction is available in the Appendix to Bascomb and Edwards (1993:p32).

Note that the FDI flow and inflation data are not averaged over time. While some measures of nations' characteristics might be considered reasonably stable over time, the actual flow of FDI may be influenced by some unusual event exogenous to the data. FDI data are inconsistent across sources, but this study is intended only to reveal significant risks, not the sensitivity of FDI to individual risks. As such, this analysis accepts FDI values reported by IMF Balance of Payments Statistics (1994).

Methods of analyzing the correspondence between flows and risks are limited by both data constraints and the composition of variables as constructed by Bascomb and Edwards. Typically, researchers employ discrete-choice logit models to estimate how risks influence the probability of investment in a place (Woodward et al., 1993).

Several requirements for such analyses cannot be met with the available data. Most serious among them is the independence of irrelevant alternatives which specifies that the probability of choosing one site relative to another is unchanged if the number of choices is changed (McFadden, 1974). This requirement is untenable for analyzing FDI flows into the FSU because choices are close substitutes

Table 1. Risk Variables

measures of economic risk
inflation in the previous year (1992)
economic performance: an aggregate of economic growth, monetary stability, current account deficit/surplus, unemployment & structural imbalances.
credit risk: an aggregate of debt indicators, access to bank lending, access to short-term financing, access to capital markets, discount on forfaiting, credit ratings, and debt in default or rescheduled.
measures of political risk
political risk: poll results of political risk analysts, risk insurance brokers, and bank officers reported in Euromoney's bi-annual country risk rankings.
total risk: a weighted composite of credit risk and political risk (both as defined above).
measures of infrastructure risk
market mass: total gross national product of all economies which fall within a 1000 km radius of the country capital.
infrastructure density: an aggregate of passenger vehicles telephones, and commercial vehicles all measured per 1000 population (1991).
measures of legal risk
regulatory ease: an aggregate of restrictions on foreign equity ownership, government approval requirements, restricted sectors or negative lists of industries closed to FDI, restrictions on repatriation of profits and proceeds of sales, and membership in 4 key multi-lateral conventions.
strength of incentives: an aggregate of the duration and availability of corporate tax holidays, concessions on import and export duties, concessions on sales taxes, withholding tax and employer contributions to legally required insurance programs, regional development programs.
administrative aid: an aggregate assessment of the governmental or quasi-governmental agency responsible for promoting or regulating or assisting in the establishment of FDI projects, including the ability to provide relevant and useful information concerning the investment climate, the ability to approve without additional agencies, the time taken to reply to the survey questionnaire, and the quantity and quality of the information returned.
Foreign Direct Investment
cumulative net inflows of FDI capital as registered in the reporting country's balance of payments statistics. note: the International Monetary Fund recommends the reporting of 3 kinds of direct investment capital,but countries do not always collect data for each.

Source: Bascomb and Edwards, 1993

(Woodward et al., 1995). Moreover, estimating a discrete-choice conditional logit model having ten variables and only 21 cases produces unreliable results (Long, 1997). These conditions, not problematic in analyses at the scale of firms or plants, preclude the use of standard investment models for this research. In order to identify the risks most influential in FDI flows, then, rank correlations are calculated for the degree of risk, by type and degree, for countries and the level of FDI flows into them. The economies are those 21 identified by World Bank (1992) as "emerging" (Table 2).

Table 2 Emerging Economies

Hungary, Czech Republic, Poland, Slovakia, Romania, Slovenia, Estonia, Lithuania, Latvia, Russia, Belarus, Ukraine, Greece, Turkey, Republic of Korea, China, Malaysia, Thailand, Indonesia, Philippines, Vietnam.

Source: World Bank, 1992

RESULTS AND DISCUSSION

Table 3 shows the rank correlation coefficients for the actual flow of FDI with countries' risk characteristics. From Table 3 it is clear that the principal risks influencing the direction and volume of FDI are low economic risks related to host-country inflation in the previous year (r_s = 0.549), low credit risks of host countries (r_s = 0.513), regulatory ease (r_s = 0.577) , and low political risks (r_s = 0.528). The importance of these risks, and the impact they have on FDI, are illustrated below using the states of the FSU as exemplars.

Risks in the FSU have had the overall effect of inducing in western firms a cautious approach to investing. This approach is characterized by low overall volumes of FDI, and an investment emphasis on the least risky methods: joint ventures and import/export agreements. Moreover, most FDI is being used for short-term purposes. To illustrate the importance of these risks, the following subsections discuss in broad terms the effects on FDI of inflation in the FSU, of the region's credit risks, its climate of regulatory restrictions, and of its political instability.

FDI Effects of Inflation Risks in the FSU

Inflation is a principal concern of investors largely because it reduces the value of host-country currency, and as such lowers profits of western investments. Moreover, inflation confounds corporate attempts to produce long-term estimates of profitability. Indeed, accurate price-signals from which plans and estimates of profit-margins can be established, are important aspects in distributing western investments (Becker et al., 1995).

For the most part, inflation in the FSU is forcing firms to take a short-term approach to FDI. The continuing economic uncertainty has engendered a cautious approach by western investors. In Russia, for example, relatively few firms have increased real investment levels since 1992 (Filatotchev et al., 1996). The distribution of uses to which FDI is put provides a telling picture of inflation's effects. A survey of 171 firms reported that the most expensive and long-term investments, capital equipment and R&D, accounted for only 20% and 12% respectively of total FDI available to Russian firms (Filatotchev et al., 1996). The largest volumes of FDI have been used to cover short-term operating costs, themselves driven upward largely by inflation's effects on input prices.

Western firms face uncertain long-term price and cost signals in the FSU. One consequence has been to redirect FDI towards those economies which have been relatively successful in subduing inflation. The larger volumes of FDI flowing to the Baltics and to Poland, for example, are largely due to their having advanced further toward economic reform, especially with respect to stable currencies and moderate or declining rates of inflation (Fallanbuchl, 1994).

FDI Effects of Credit Risks in the FSU

A country's credit risk is, in effect, a measure of international institutions' confidence in its economy. Credit risk was calculated by Bascomb and Edwards (1993) as an of aggregate host-countries' debt indicators, access to bank lending, access to short-term finance, access to capital markets, credit rating, and debt in default or rescheduled. Thus, the credit risk variable is an indicator of the stability of host countries' economies. As shown in Table 3, the flow of FDI into emerging economies is related to international institutions' confidence in them.

Table 3. Spearman's Rank Correlation Coefficients: Flow of Foreign Direct Investment with Measures of Investors' Risks

Measures of Economic Risk		
inflation[a]	economic performance	credit risk[a]
0.549[b]	0.255	0.513[b]
Measures of Legal Risk		
regulatory ease	strength of incentives	administrative aid
0.577[b]	0.122	0.212
Measures of Political Risk		
political risk[a]		total risk[a]
0.528[b]		0.056
Measures of Infrastructure Risk		
market mass		infrastructure density
0.079		0.283

[a] ranked lowest to highest
[b] statistically significant at 0.01; one-tailed test

Confidence in FSU economies is hindered by the region's debt, capitalization troubles, and its unsteady banking sector. Debt problems plague the FSU. The Russian and FSU debt totaled roughly $86 billion in 1994: $49 billion Paris Club debt with official lenders; $31 billion London Club debt with commercial banks; and $6 billion in non-bank, supplier credits, and other debt. Capital markets in the FSU remain basically illiquid. Moreover, the FSU is plagued by the lack of a sound banking system (Blommenstein, 1994). Together, these risks lead western investors to perceive the FSU as being risky in terms of its creditworthiness.

FDI Effects of Regulatory Ease in the FSU

Would-be investors in the FSU are confronted by several regulatory problems: restrictions on both sectors and amounts permissible for FDI, unclear legal criteria for granting FDI, time limits and bureaucratic delays, and evolving requirements (World Bank, 1992). As Table 3 shows, ranked flows of FDI are positively associated with rankings of regulatory ease. The Regulatory Ease variable is a composite of country scores on the following criteria: restrictions on foreign equity ownership, government approval requirements, restricted sectors or lists of industries closed to FDI, restrictions on repatriation of profits and proceeds of sales, and membership in 4 key multi-lateral conventions. As such, it represents the ability of a firm to invest in sectors, and in amounts, it judges to be correct and consistent with its overall corporate strategy.

Within the FSU, differences in the openness of sectors and the clarity of investment regulations helps to account for differences in volumes of FDI (Lieberman et al., 1995). This is made especially clear by the contrasts between restrictions and FDI flows to Russia and the Czech and Slovak Republics.

Moreover, differences across sectors in FDI are tied to regulatory issues. Billions of dollars are poised to enter the energy sector in Russia. The privatization decree governing the oil sector, an exception to the standard program, provides for the selling-off of the vertically integrated producer associations in 1997. Western analysts doubt that such a sell-off will occur smoothly, in the near future, and without significant restrictions (Lieberman et al., 1995). Conversely, entry into consumer goods sectors is relatively free except for capitalization requirements. Hence, the number of consumer goods enterprises receiving FDI far exceeds those in energy and transportation sectors (Shama, 1995).

By their very nature, quantitative restrictions applied to sectors and volumes distort FDI flows. Trends in capitalization rates of joint ventures in Russia provide evidence. Early joint ventures were characterized by low rates that have gradually increased as restrictions on allowable volumes were reduced (Filatotchev et al., 1996).

FDI Effects of Political Risks in the FSU

Political risks in the FSU have led western investors to choose the least risky investment strategies, restrain the level of FDI, and hedge their investments by allocating FDI among multiple locations having low risks.

Political risks play a major role in decisions concerning the amount and distribution of FDI (Rice and Mahmoud, 1986). A study of 42 New England firms already doing business in the FSU reported that political risks led firms to choose the least risky, and least costly, investment strategies: import/export agreements and joint ventures (McCarthy et al., 1993). Several firms in this group described strategies of explicitly minimizing capital investments in light of the region's perceptible political instability. Only two companies invested directly in manufacturing, the most risky and costly strategy. A partial explanation for this might be that until 1992, export/import and joint venturing were the only allowable entry strategies by the Russian legal system.

In an apparent hedging strategy, 69% (24 of 35) wholly-owned subsidiaries operating in the FSU during 1993 were doing so in Hungary, Poland, and the Czech Republic, where perceived risk is lower (McCarthy et al., 1993). For example, Gillette compensated for its exposure to risk in Russia by acquiring 80% of newly privatized Wizamet SA in Lodz, Poland (Shama, 1995).

Investors have responded to political risk by limiting the amount of their investments in the FSU (McCarthy et al., 1993). As of 1993, firms were being advised to invest only what they could afford to lose (Welch, 1993).

The FSU is a region of widespread disequilibrium in political and economic relations. Investors cited concerns about economic losses due to repatriation of property by governments, about civil disorder, and about the inability to function in a near-normal business fashion as realistic scenarios that western businesses could encounter in the FSU (McCarthy et al, 1993). As a result, western firms have limited both the direction and amount of FDI flowing into the FSU.

FDI Effects of Other Risks in the FSU

Table 3 also shows that several risk factors are not significantly associated with flows of FDI into competing countries. In terms of economic risks, the economic performance of the host country is only somewhat related to FDI flows (r_s = 0.255). The sign is correct. Stronger economic performance is positively associated with FDI flows, but the strength of the association is weak. When considered along with the significance of inflation and creditworthiness, this result suggests that accurate projections of future economic performance are more important in corporate decisions than the past performance of economies.

As for legal risks, western firms are not, apparently, moved to invest by the strength of incentives or administrative aid from host countries.Incentives and administrative aid are positively associated with FDI flows, although both associations are again weak (r_s = 0.122, and r_s = 0.212 respectively).

The measure of total risk, a weighted composite of credit and political risks, is almost totally unrelated to FDI flows (r_s = 0.056). This sharply contradicts the results for political risk alone. As such, it suggests that the weighted composite scores produced by Bascomb and Edwards be used cautiously. It further suggests, intuitively at least, that credit risks might be offset by political stability and vice versa.

The rank correlations between FDI flows and infrastructure risks, measured in terms of market

mass, are also near zero (r_s = 0.079). Infrastructure risks stemming from low infrastructure density are somewhat related, not to a statistically significant degree (r_s = 0.283). That is, ranked flows of FDI are slightly associated with ranked densities of infrastructure.

CONCLUSIONS

For western investors, risks in emerging economies are plentiful. This is reflected in the direction and volume of FDI. Risks have slowed the pace and distorted the sectoral distribution of FDI.

The analysis represented in Table 3, when considered in total, suggests that the FSU can move towards acquiring higher levels of FDI flows by adopting sound macro-economic policies, easing both sectoral and shares restrictions on FDI, and continuing efforts to produce consistent political agenda. Table 3 further suggests that some policies and programs are not effective in drawing flows of FDI into emerging economies. In particular, costly tax abatement mechanisms, infrastructure spending programs, and government assistance agencies are less important to investors than prudent monetary and dependable political policies.

Table 3 demonstrates the importance investors place on being able to make long term estimates of profitability. While investors may rely on speculative perceptions of places' risks rather than systematic analyses, they are for the most part quite good at formulating and executing corporate plans (Stopford et al., 1991). In order to attract greater shares of FDI, emerging economies must remove the uncertainties that multinational firms face when designing investment campaigns. This means that policies and programs must deliberately reduce the important risks investors face in the region.

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