FDI Potential and Shortfalls in South Mediterranean Countries: Determinants and Diversion Effects

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Several analyses points to the worrying fact that Southern Mediterranean countries (MED so far) receive little FDI from most other regions in the world and cursory evidence has shown that FDI flows into some of them has tended to decline since the end of the 1990s. Econometric analyses of FDI in MED (Altomonte and Guagliano, 2003; Alessandrini, 2001; Di Mauro, 2000) have especially focused on testing whether a re-orientation towards the countries of Central and Eastern Europe (CEECs) took place over the nineties, when these now new EU members have increasingly become the destination for considerable amounts of Foreign Direct Investment (FDI). These studies generally reached the conclusion that no FDI diversion was taking place.

Following the results of these papers, we want to investigate the reason and the real size of the stylized fact that inflows of FDI have tended to level off in MED. Starting from the consideration that the success of FDI attractiveness of CEECs was mainly due to the prospects of EU membership and to the fact that most CEECs have succeeded in attaining both institutional and political stability, we attempts to explain FDI shortfalls of MED at the aggregate level with a gravity model enlarged to include many policy and institutional factors. The gravity model approach has been already applied to studies of FDI as a means of picking up the common determinants of FDI flows across countries (Brenton et al. 1999). Consistent with recent research (Ferragina et al., ERF XII conference, 2005), we apply a fixed (country-pair specific) effect model to account for unobservable factors and a two-stage "out-of-sample" approach, where the model parameters are estimated on a subsample composed of non MED countries, and the potential value of trade flows of the MED computed using the corresponding data for these countries on the right-hand side.

The model is estimated with panel data techniques based on assembled data on bilateral FDI flows of fourteen European countries (EU15 excluding Belgium) and two non EU countries (USA and Japan). For each of these countries, we search for determinants of bilateral FDI flows into a large sample of developed and developing partners (74 partners), using many relevant explanatory variables (a broad version of the gravity model) for the years 1994-2004.

We argue that factors such as proximity and market size should make countries attractive locations for FDI, but we consider the role of institutional and policy variable crucial too. First, we consider the traditional gravity variables. In the formulation of the gravity model, the volume of FDI (flows) is mostly explained by the size of the market, proxied by GDP, by the country's population and by the distance. Larger markets are expected to attract more FDI, and the coefficients on GDP and population should thus be positive. Furthermore, it may be expected that firms will tend to prefer FDI to exports when trade costs, proxied by distance, rise. However, a negative coefficient on the distance variable might also be expected since the costs of operating overseas affiliates are likely to rise as the distance from their domestic central headquarters increases. The institutional and policy variables considered are several. First of all, the governance indicators, taken from Kaufamn, Kray and Zoido-Lobatón (2002), based on subjective indicators taken from the International Country Risk Guide; then, current and capital account restrictions and exchange rate volatility are considered, the former are taken from the IMF's Annual Report on Exchange Arrangements and Exchange Restrictions and the latter is calculated from IMF-International Financial Statistics; further, following Brenton et al. (1999), this model also takes into account the ratio of the host country's GDP devoted to imports (IMP/GDP) or to total trade (EXP+IMP/GDP), a proxy for the openness of a country to foreign trade, on which we expect a positive coefficient. The size of the financial system, as proxied by M2/GDP, is also included as a measure of the host country's level of development. We would expect countries with more developed financial systems to be relatively more attractive for FDI. Furthermore, we test policy variables such as presence of a Regional Trading Agreement and of a Currency Union between the two partners and participation in Trade Agreement with other countries (a measure of the existence of FDI diversion). We also experiment with additional variables, such as those measuring human capital endowment (literacy and enrolment in secondary school and technicians in R&D) in the hope of capturing a greater understanding of FDI determinants on the general level.

Our empirical analysis proceeds in three steps. First we look for the determinants for outflows of FDI from the source countries analyzed, estimating the model with both fixed and random effects (analysis of determinants).

Then, we proceed to the second step: we use these estimates to perform out-of-sample forecasts for FDI flows to both the CEECs and to the Southern Mediterranean countries, subsequently comparing these estimated flows with those that would be expected based on the empirical benchmark model described above (simulation analysis).

We would expect that actual capital flows to MED were below the expected flows because of the stock adjustment process that has to take place, although, the current situation might correspond to a sort of equilibrium taking into account the distortions to which the economic agents are submitted to in this area. For CEECs, the stock adjustment might have already taken place. Hence, actual and expected flows should not be strongly misaligned.

Furthermore, we want to try to investigate the relative importance of different factors contributing to shortfalls in bilateral FDI of MED and we do this by examining the extent to which the coefficients of the various explanatory variables differ between MED and non-MED countries, and between MED and CEECs. To test for this, we present additional regression results for the pooled sample of countries (MED and non-MED) with all the same explanatory variables, inclusive of MED and CEECs dummies, and also inclusive of interaction terms involving these dummies.

From our results we draw some policy implications. MED have been lagging behind other regions, especially behind Eastern Europe, in many policy areas. Although in several aspects today the MED position is not of total disfavour, from the FDIs we can best perceive the necessity to modify the business environment and the behaviour of the enterprises in the MED area. The perspective of adhesion of CEECs offered investors a guarantee that there will be no backtracking in the process of regulatory and institutional reforms in those countries. Conversely, in MED industries that faced difficulties (mostly public ones), have been privatised and restructured under the impulse and with the help of Europe, but the process did not take place at a sufficient scale. Unlike MED, Eastern European countries moved towards a deeper integration not limited to a few tariff evolutions and were progressively adapting their legal framework and their practices to international standards. The current situation corresponds undoubtedly to a justified equilibrium taking into account these distortions.

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