

# The Development of Trade and Foreign Direct Investment Under the Influence of the Barcelona Process - a Quantification Based on a Panel Data Model

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## ABSTRACT:

This paper investigates empirically the influence of the Barcelona Process on trade and foreign direct investment (FDI) in the EU's Mediterranean partner countries by means of a panel data model thereby expanding the initial assessment of Bäcker (2005).<sup>1</sup> One of the major novelties is that it presents a direct quantification of the impact of bilateral trade liberalisation with the EU on the Mediterranean countries based on a standard framework (estimated export and import functions), and on an accurate indicator for the beginning of trade liberalisation which is often misrepresented in the literature. The motivation is that a clear notion of the liberalisation process which started in 1995 has been missing so far.

The paper departs with a brief account of the Barcelona Declaration's objectives for trade liberalisation, central to the declaration's economic chapter, and FDI promotion. It continues with a description of economic and geographical fundamentals which affect trade and FDI and which are usually captured by gravity-type models. Moreover, the paper gives an overview over the accomplishment of free trade arrangements in the form of Association Agreements between the EU and the Mediterranean countries. In this context, it is important to understand that the EU opened its markets for industrial products from the Mediterranean countries completely at the end of the 1970s whereas trade liberalisation in the Mediterranean partners has started later and is still ongoing at different speeds. At the same time trade liberalisation among the Mediterranean countries has not progressed sufficiently to complement the hub-and-spokes system of the bilateral Euro-Mediterranean free trade agreements.

The paper goes on to empirically investigate the development of trade between the EU and Mediterranean countries as well as intra-Mediterranean trade. The trade section begins with a presentation of up-to-date figures on EU and world trade of the Mediterranean countries including the development of openness indicators and market shares after controlling for exchange rate distortions. On the first sight, the raw data show a sometimes disappointing performance of Mediterranean trade with the EU. However, drawing reliable conclusions on the effect of the Euro-Mediterranean trade liberalisation is not possible without controlling for other factors such as economic growth and exchange rate developments. Therefore, the paper continues with the estimation of export and import functions for the Mediterranean countries on the basis of a panel data model with fixed effects that results as the optimum specification. The estimation involves the usual checking for unit-roots, co-integration, serial correlation etc. The results indicate that the Association Agreements indeed have a significant positive effect on Mediterranean trade.

The Barcelona Declaration considers FDI as a particularly valuable complement to domestic investment which can help to raise productivity and living standards. The Declaration envisages supporting the Mediterranean countries in their efforts to attract FDI. In principle, FDI depends on expected risk adjusted returns over the long term. On this basis, the paper analyses empirically FDI in the Mediterranean countries and its relationship to trade developments. First, the paper portrays the development of inward FDI flows and stocks from the world and from the EU. It then goes on to show that FDI variations can be explained with indicators which reflect the different investment climates in the Mediterranean countries and their competitive position with regard to the rest of the

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<sup>1</sup> Bäcker, A., 2005, The development of trade and foreign direct investment under the influence of the Barcelona Process – an initial assessment, in Bayar A. (Ed), International Conference on the Middle East and North African Economies – Past Perspectives and Future Challenges, Brussels, 2-4 June 2005, Proceedings, Brussels: EcoMod Press.

world. Moreover, in some countries there is evidence of a correlation between FDI and trade which could be a sign of relatively advanced trade integration with the EU.

The paper concludes with the suggestion that trade liberalisation in the Mediterranean countries should be underpinned more soundly by improving the business environment of the private sector. The latter must be put into the position to make full use of the EU-Mediterranean free trade area. Likewise, inward FDI which is a catalyst for development should be promoted more strongly by creating a competitive investment climate which would also benefit domestic enterprises and economic growth. Recent growth literature advises to address necessary economic reforms by prioritising the abolition of bottlenecks, and by taking into account politico-economic aspects. In this context, at their first meeting in June 2005 the Euro-Mediterranean Economic and Finance ministers have pointed out four priority reform fields on which improvements would create the biggest impact and spur trade and FDI.

**Key words:** Barcelona Process, EU, Mediterranean, trade, trade liberalisation, free trade agreements, free trade area, foreign direct investment, exchange rate, export/import function.

**JEL Classification:** F13, F14, F15, F21, F41.