

Shallow versus Deep Integration in the Southern Mediterranean

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Objectives and methodology of the Paper

- Assessing the impact of shallow versus deep integration between Mediterranean (MED) countries and their partners in the EU as well as between the MED countries themselves.
- MED countries include Tunisia, Egypt, Morocco, Algeria, Syria, Jordan, Turkey, Lebanon, Libya, Palestinian territories, and Israel. Libya and Palestinian territories have not been included in this analysis because of data unavailability.
- It relies on dataset developed for this project concerning tariffs (as a proxy for shallow integration) and Non Tariff Measures (NTMs) (as a proxy for deep integration). Additional data are also included in order to take into account other trade costs, especially transport costs and logistics costs.

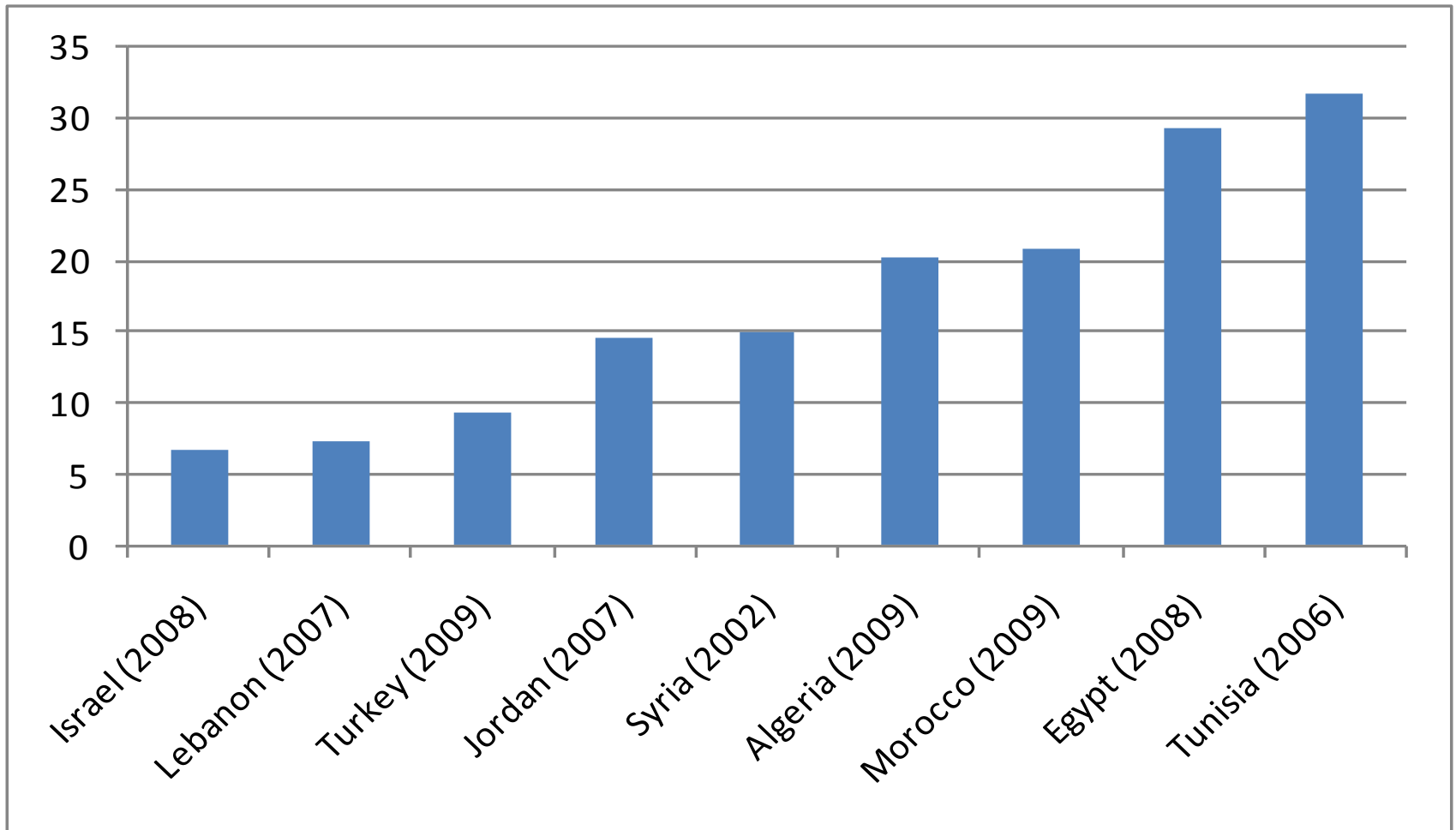
- We calculate the magnitude of NTMs in terms of ad valorem tariff equivalent (AVEs) based on new research developments as in Kee et al. (2009).
- We estimate a gravity model based on a modified version of the theoretical equation developed by Anderson and van Wincoop (2003 and 2004), with special emphasis on trade costs.
- Given the limitation of data on NTMs, the gravity model is estimated for only one year (2001), and for each MED country.
- Trade costs are represented by tariffs, AVEs of NTMs, and transport and logistics costs.

- Sensitivity analysis is carried out by using a number of other estimators (fixed-effects vector decomposition (FEVD), Hausman and Taylor, Feasible GLS) as well an alternative proxy for transport costs).
- The study tries to answer then two main questions, namely what is the trade creation expected for the completion of shallow integration between Mediterranean countries and their partners?
- The simulations differentiate between shallow and deep integration and trade creation is calculated in both cases between the MED countries on the one hand and the EU countries on the other hand as well as amongst the MED countries.

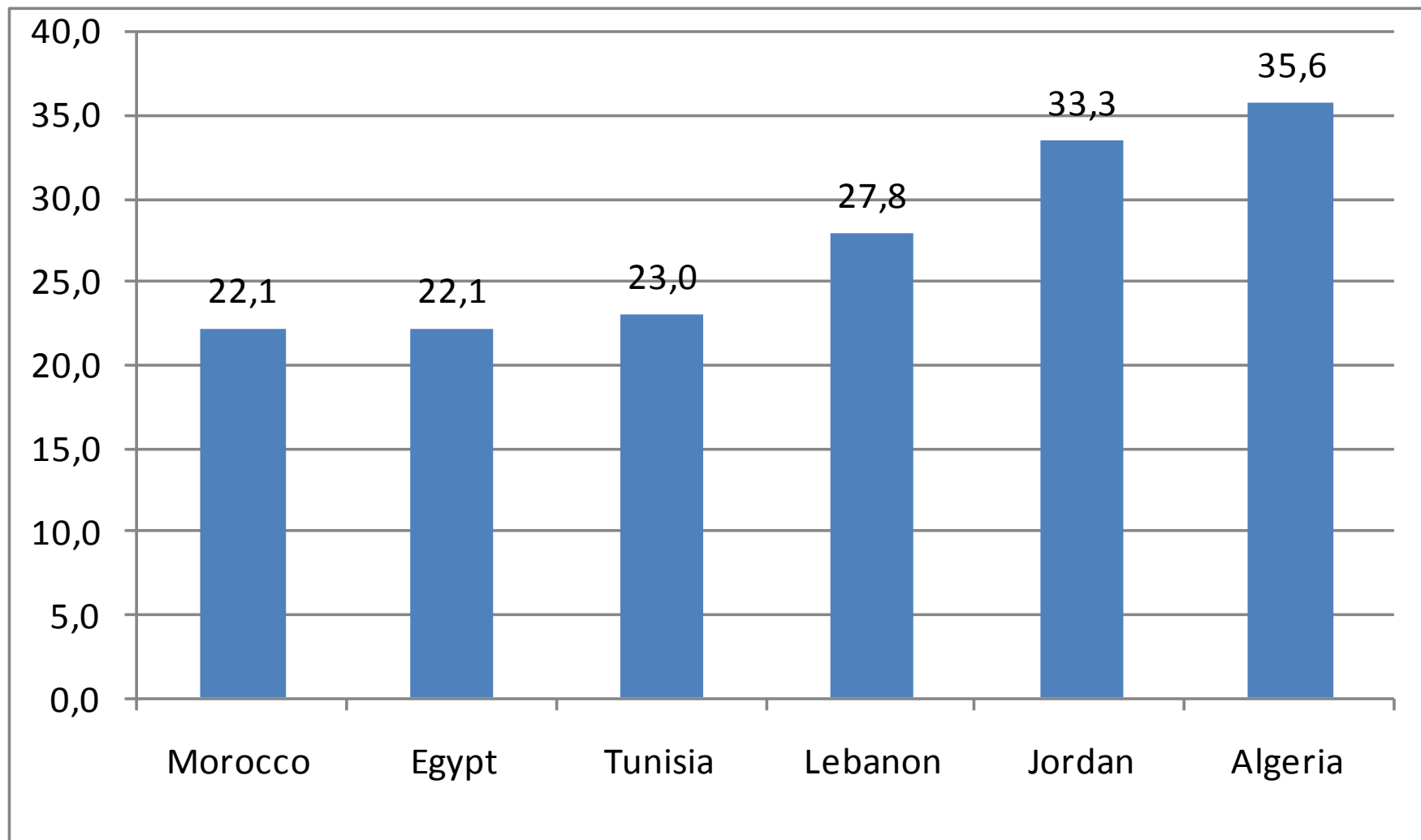
Each simulation considers:

- An optimistic scenario (full integration) where full abolishment of tariffs, NTMs, and transport and LPI takes place.
- A pessimistic scenario (partial integration) where only marginal cuts take place.

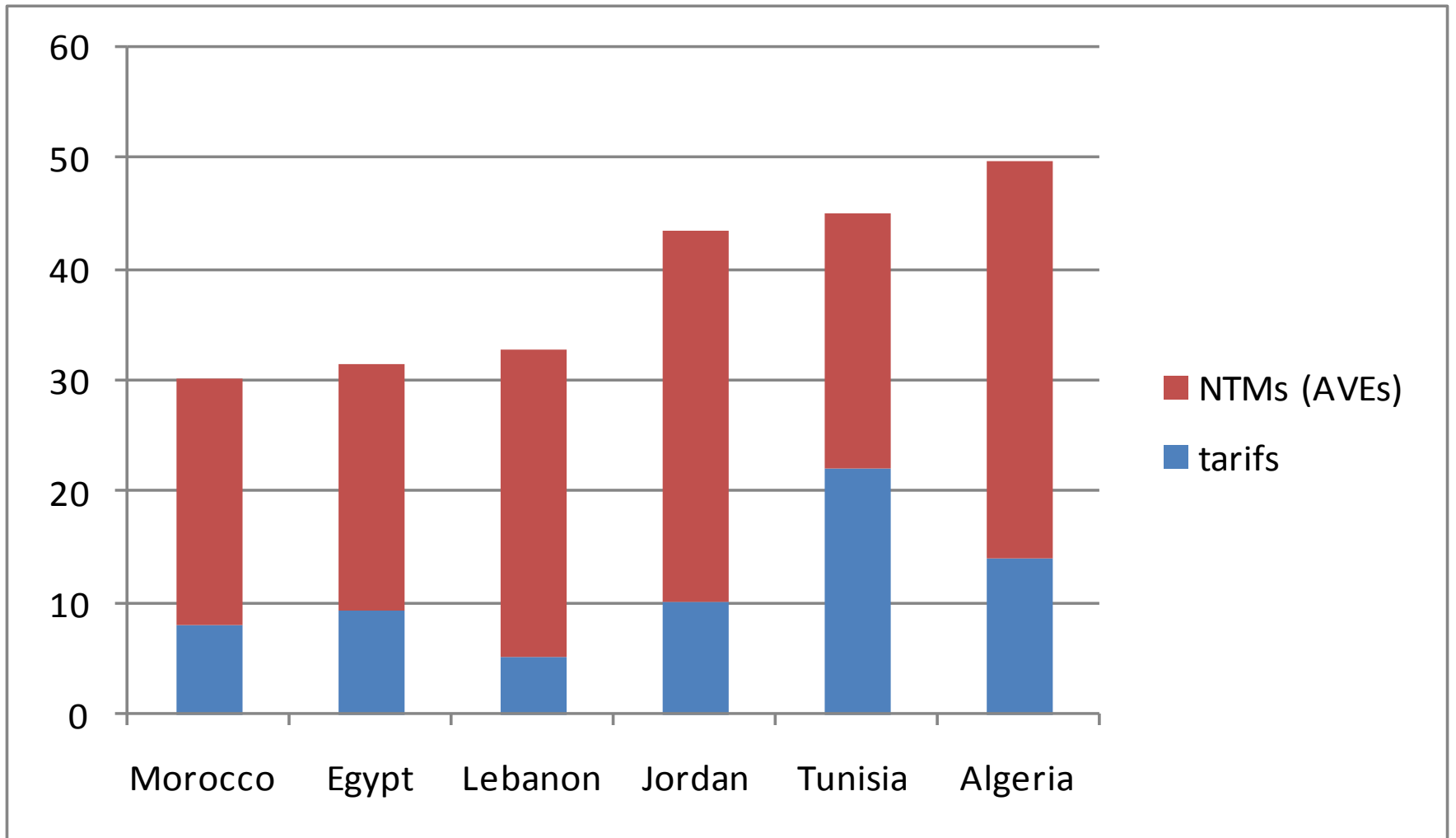
Average MFN tariffs applied by MED countries (unweighted average, %)



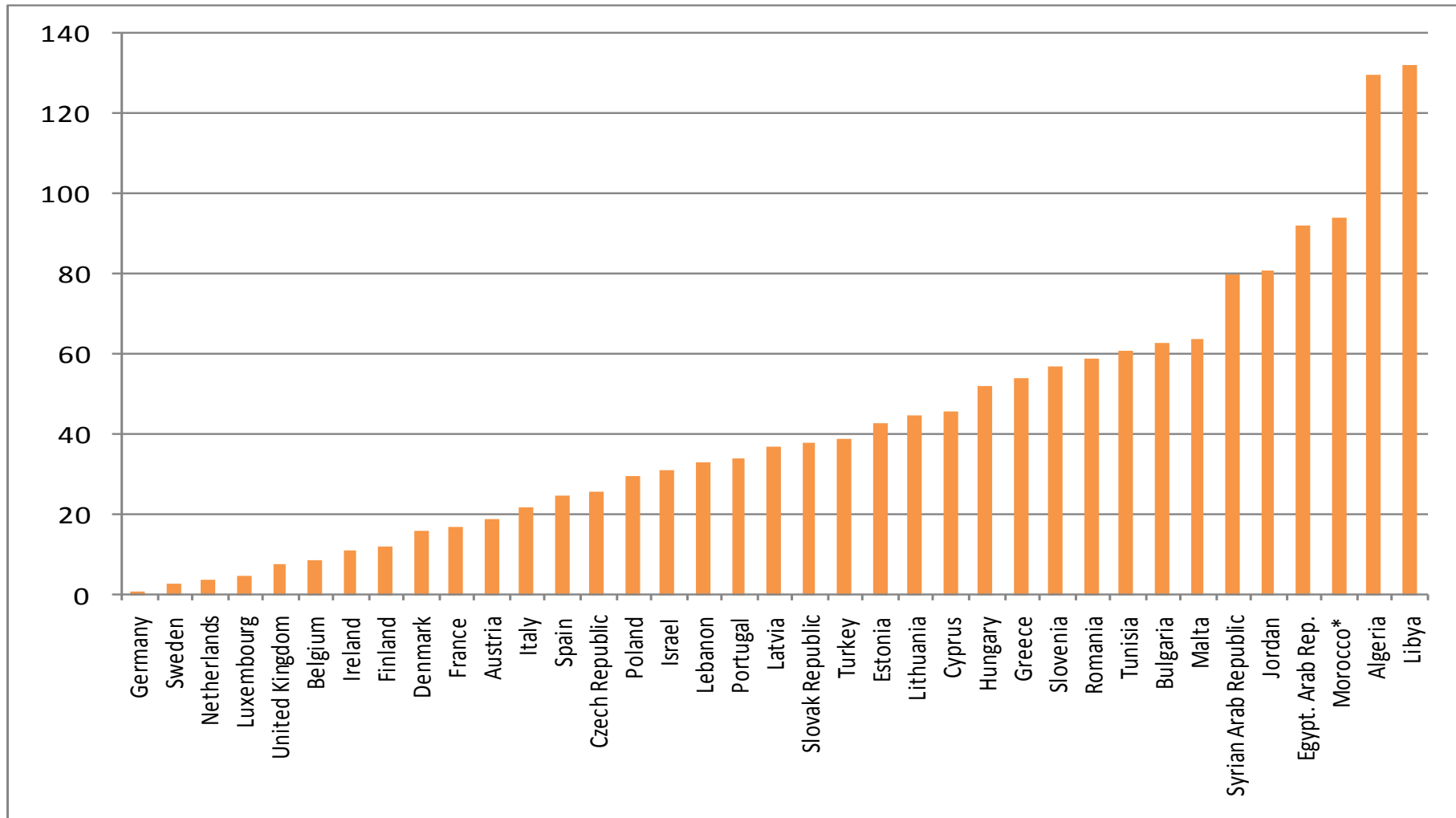
An estimation of AVEs in Mediterranean countries (%)



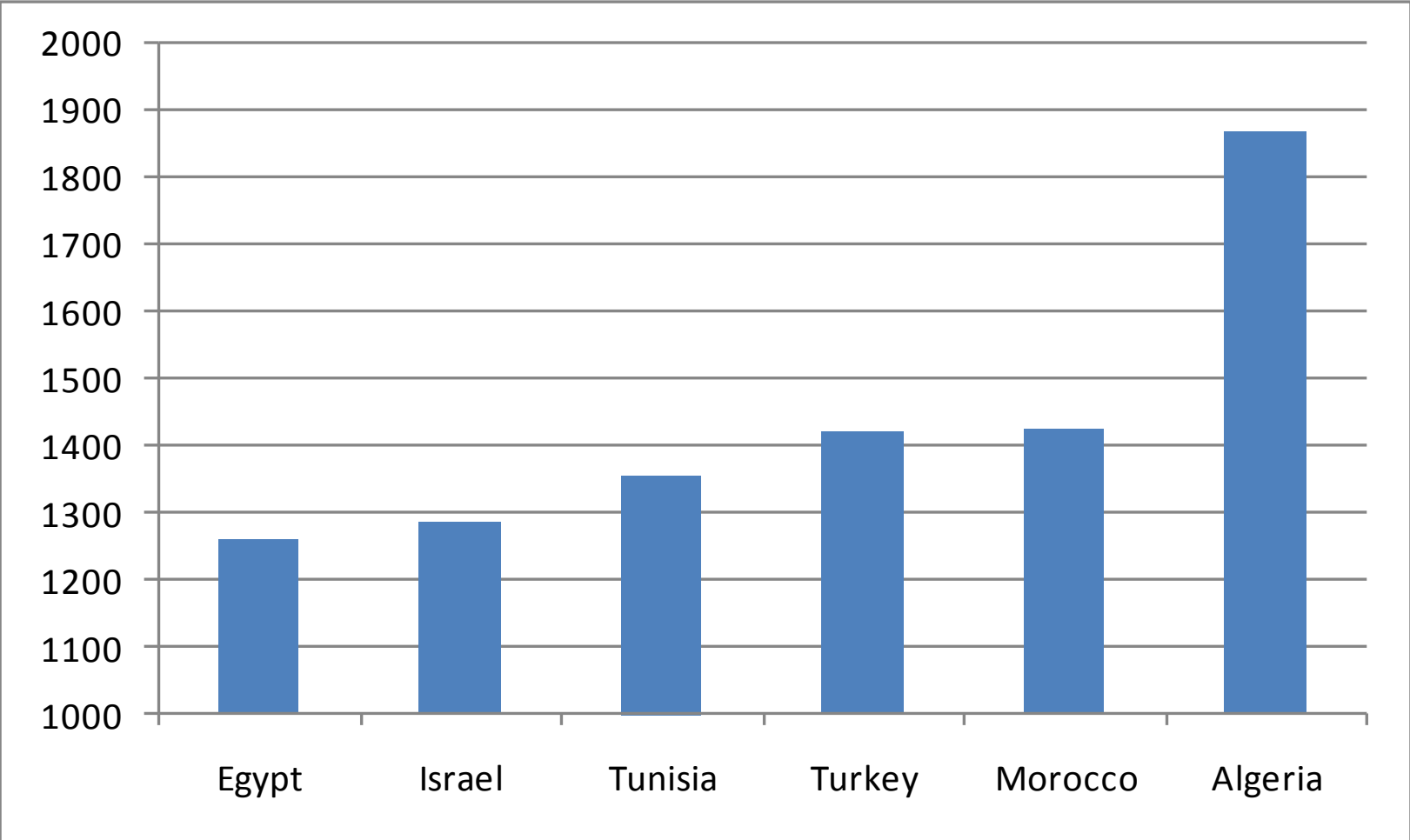
Overall Protection in MED Countries: tariffs and NTMs (%)



Country Ranking for LPI (rank 2010* over 155 countries)



Average freight costs to EU markets (US dollars, unweighted average)



Estimation Results: the impact of tariffs, NTMs, transports and other variables on MED countries' imports

Heckman Twostep	Algeria	Egypt	Jordan	Lebanon	Morocco	Tunisia	Israel	Turkey
<u>independent:</u>								
NTMs	-0.694***	-0.525***	-0.499***	-0.383***	-0.315***	-0,336***	-	-
tariffs	-1.060***	-0.678***	-0.237***	-0.055**	-0.322***	-1.137***	-0.521***	-0.340***
transport	-3.044***	-0.239	-0.201	-1.375***	-4.696***	-2.398***	-1.568***	-4.126***
sum gdp	0.677***	0.704***	0.260***	0.303***	0.906***	1.097***	1.177***	1.977***
colony	1.409***	0.386**	0.106***	0.295***	0.830***	0.799**	0.045	-
common language	0,191	-0,160	0.470***	0.204***	0.811***	0.686***	0.209	-
constant	17.409**	1.345***	-0.488	8.032***	1.543***	6.979**	1.057	8.789**
<u>selection:</u>								
partner type	-0,264**	-0.414**	-0.361***	-0.398***	-0.372**	-0.295**	-0.455***	-0.366***
nb obs.	1544	1655	1533	1984	1820	1944	1937	2740
censored obs	68	451	172	203	328	275	395	722

Sensitivity Analysis (imports' determinants using alternative variables and estimators)

sensitivity analysis

	Algeria	Egypt	Jordan	Lebanon	Morocco	Tunisia	Israel	Turkey
Heckman Twostep								
<i>distance</i>	-0.606***	-0.127	-0.238***	-0.278***	-1.168***	-0.899***	-0.074	-0.741***
<i>partner's LPI</i>	-1.566	-1.871	-1.422	-1.631	-1.327	-1.666	2.819***	3.932***
<i>MENA countries' LPI</i>	1.95**	1.95**	1.95**	1.95**	1.95**	1.95**	1.95**	1.95**
Fixed-effects vector decomposition (FEVD, product-invariant and endogeneity)								
NTMs	-0.699***	-0.511***	-0.519***	-0.386***	-0.298***	-0,345***	-	-
tariffs	-1.119***	-0.679***	-0.240***	-0.051**	-0.314***	-1.183***	-0.476***	-0.349***
transport	-3.039***	-0.236	-0.197	-1.355***	-3.937***	-2.399***	-1.607***	-3,954***
Hausman-Taylor (endogeneity)								
NTMs	-0.699***	-0.510***	-0.519***	-0.387***	-0.298***	-0,345***	-	-
tariffs	-1.117***	-0.679***	-0.240***	-0.051**	-0.314***	-1.183***	-0.475***	-0.349***
transport	-3.730***	-3.024	-2.538	-1.264***	-5.210***	-2.524***	-1.439***	-4.555***
FGLS (panel heteroskedasticity and autocorrelation)								
NTMs	-0.680***	-0.471***	-0.497***	-0.402***	-0.307***	-0,282**	-	-
tariffs	-1.145***	-0.665***	-0.252***	-0.053**	-0.315***	-1.125***	-0.501***	-0.373***
transport	-2.895***	-0.131	-0.218	-1.307***	-3,528***	-2.492***	-1.611***	-3.702***

- Estimations of the gravity model shows that NTMs have a detrimental effect on trade in all MED countries. Algeria has the highest coefficient whereas Morocco has the lowest.
- There is strong correlation between the magnitude of the AVEs and the trade effects of NTMs.
- Transport coefficient is also significant showing that it acts as a major impediment to flow of trade if it is inefficient, yet the impact differs from one country to another with some countries not being affected as Egypt, Jordan, and Israel.
- The logistics coefficient is not always significant since it measures the impact of the EU partners logistics on flow of exports from MED countries, yet the logistics coefficient of MED countries is always significant implying that logistics affect negatively trade amongst MED countries.

- Trade costs significantly reduce imports to MED countries from their partners in the EU; Tariffs are import reducing, but mainly in the countries which showed the highest tariff levels (Algeria and Tunisia).
- This suggests that the shallow integration was not fully achieved in these countries.
- NTMs are significantly trade-reducing in all countries, especially in Algeria. On the other hand, they are less trade-reducing in Morocco and Tunisia, though still significant.
- This means that eliminating NTMs in MED countries as a move towards deeper integration with the EU is expected to provide significant gains;

- Transport costs significantly reduce trade, especially in Maghreb countries, since these countries show the highest freight costs.
- Any improvement of logistics performance in MED countries is expected to increase imports from their partners, since this contributes to reduce transport costs, inefficiency and time.
- Any deep integration policy which could stimulate the improvement of LPIs in MED countries (but also in the EU) is expected to provide additional gains.

Scenarios

Shallow Integration		Deep Integration			
Partial (pessimistic scenario)	Full (optimistic scenario)	Partial (Pessimistic)		Full (Optimistic)	
Tariffs	Tariffs	NTMs	LPI	NTMs	LPI
Marginal cut	Complete removal	Marginal cut	Marginal cut	Complete removal	increase to 3.05

- Trade creation is high and significant for shallow and deep integration when full integration (optimistic scenario) takes place.
- However, it differs from one country to another being the highest in the case of Algeria, intermediate in the case of Tunisia and Egypt and smaller in the case of Morocco, Lebanon and Jordan.
- Partial integration (pessimistic scenario) has a relatively insignificant impact on trade creation.
- However, the impact is much larger in the case of countries that had high tariff rates and AVEs of NTMs (namely Algeria and Tunisia), and less impact on countries that had relatively lower rates.

- The simulations also showed that trade gains due to deep integration can also be reinforced further through the improvement of logistics in MED countries.
- In the case of trade amongst MED countries, the optimistic scenario for deep integration shows very significant trade increases between the MED partners, both because of NTMs' removal and increase in LPI.
- Conversely, the shallow integration process is almost fully achieved through the GAFTA agreement. This is why trade increase is more limited.

Main Findings

- Tariffs are trade reducing, mainly in the countries which showed the highest tariff levels (Algeria and Tunisia). This suggests that the shallow integration was not fully achieved in these countries.
- NTMs are significantly trade-reducing in all countries, especially in Algeria. On the other hand, they are less trade-reducing in Morocco and Tunisia, though significant. This means that eliminating NTMs in MED countries as a move toward deeper integration in the Euromed area is expected to provide significant gains.
- Transport costs significantly reduce trade in Mediterranean countries, as well as inefficiencies in logistics.

Policy Implications

- MED countries should complete their shallow integration with their EU partners and across themselves as a means of capturing the remaining trade gains available. In particular, Algeria should take efforts to reduce its tariffs which currently remain at high levels.
- Dealing with deep integration is a more difficult task. First, NTMs must be addressed altogether, since we have shown that the removal of a particular NTM while keeping the other ones provides very limited benefits. The removal of all NTMs for all products is not necessarily the right solution, since some NTMs may be useful at product level for specific reasons (sanitary, etc.).
- However, there are numerous NTMs in MED countries which strongly reduce trade. Some questions must be addressed with regard their removal for specific products, by eliminating para-tariff measures or moving towards mutual technical standard recognition.

- In any case, a cost-benefit analysis should be undertaken at product-level before embarking on NTMs elimination (especially in terms of short terms costs due to an increased competition with EU products).
- A second aspect of deep integration relates to the efficiency of logistics including the improving of LPI (port infrastructures, logistics services, etc.) and increased cooperation in infrastructure related projects is required.

THANK YOU...