Aid for Trade: Ensuring That the Most Needy Get It

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This presentation is based on Elisa Gamberoni and Richard Newfarmer "Aid for Trade: Matching Potential Demand with Supply" World Bank *Policy Research Paper* 4991 and Elisa Gamberoni and Richard Newfarmer, "Aid for Trade: Do the Most Needy Get It?" draft 2011

Key questions:

- Which countries might have a *potential demand* for aid for trade, either because of poor trade performance or because of capacity constraints that hamper trade?
- Is the supply of aid for trade going to countries that have a potential demand for it?
- Which countries are receiving below average aid for trade relative to their potential demand?
- Corollary: Which indicators seem most useful for monitoring aid for trade because of their *predictive effects* on trade performance?

Why do we care about aid for trade?



Globalization risky? What do you mean?

Google map to our logic....

Which countries have greatest need...potential demand?

Trade performance 5 Indicators Capacity : Infrastructure, Institutions, incentives Which indicators *predict* trade level?

5 Indicators

Measuring potential demand -- rankings by quintile

Indicator 1 Country (highest) 1 : Country (lowest) 5

Does supply of aid go to countries with the higest demand?

Aid for Trade / GDP demand Income p.c., aid effectiveness Which countries have less aid for trade than they might demand?

Caveats...

Paper does not analyze why a country might receive less aid for trade

- It might not need it
- It might have higher priorities
- It might not use it well

The effort here is not to provide answers for individual countries -- but to provide the big picture and to provoke questions at the national level on competitiveness and aid for trade stategy Potential demand arises from poor trade performance and weak trade capacity ...

Trade performance – Several ways to measure..
Growth rate of exports of goods and services

Trade performance varies...but 29 low income countries figure in the bottom two quintiles



Source: Authors calculation. World Bank,WTI Note: Quintile scale are from the entire sample of low and middle income countries

Potential demand arises from poor trade performance and weak trade capacity ...

Trade performance – Several ways to measure..
Growth rate of exports of goods and services
Change in global market share

Despite export growth, about half of LICs lost market share

Low income countries: Change in market share, 1996-2006



Potential demand arises from poor trade performance and weak trade capacity ...

Trade performance – Several ways to measure..

- **1.** Growth rate of exports of goods and services
- 2. Change in global market share
- 3. Change in competitiveness in existing markets
- Growth rates of export markets product and geographic markets

Sources of export growth: competitiveness or demand growth?



Source: Authors calculations based on International Trade Center, Trade Performance indicator

Potential demand arises from poor trade performance and weak trade capacity ...

Trade performance – Several ways to measure..

- **1.** Growth rate of exports of goods and services
- 2. Change in global market share
- **3.** Change in competitiveness in existing markets
- Growth rates of export markets product and geographic markets
- **5.** Degree of export concentration

Dependence on a few exports exposes countries to terms of trade shocks



Source: Authors calculation based on World Bank, Wolrd Development Indicators and World Trade Indicators

Concentration Index – average 1996-2006



Source: Authors calculation. Wolrd Bank, WTI Note: Quintile scale are from the entire sample of low and middle income countries

Besides trade *performance*, potential demand should include trade *capacity*...

Objective: Find capacity indicators that predict trade levels

How?

- Literature: Infrastructure, Institutions, Incentives
- But many measures of each of these how can we select?
- So we analyzed bilateral trade levels using a "gravity" model to find out which were most powerful of predictors trade levels

What capacity indicators influence bilateral trade?

A gravity model permits us to hold other factors constant



Besides trade *performance*, potential demand should include trade *capacity*...

Objective: Find *indicators* that predict trade levels
Infrastructure

- Quality of infrastructure and information technology LPI (2)
- Institutions
 - 2. Quality of customs LPI (3)
 - **3.** Time to export *Doing Business*
- Incentives
 - 4. Peak tariffs (# of lines 3x average tariff level)
 - 5. Tariff overall restrictiveness index OTRI

Infrastructure, institutions and incentives influence trade

Effects of 1% change in infrastructure, institution, and incentive on exports



Change in exports %

Note: Marginal effects calculates at the average of the sample. ^a represents the change passing from zero to one. The rest of the variables refers to change of 1 percentage point. ^bOther control variables are listed in the Annex.

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About 60% of LDCs figure in the bottom two quintiles of infrastructure rankings for all developing countries





Quantifying "potential demand"... adding it up

- Trade performance
 - 1 Growth of exports
 - 2 Change in market share
 - 3 Competitiveness in existing markets
 - 4 Demand structure
 - 5 Concentration- diversification
- Capacity
 - 6 Infrastructure
 - 7 Customs
 - 8 Time to export
 - 9 Tariff peaks
 - 10 Overall tariff restrictiveness

- Score every country on 10 dimensions
- 1 for highest quintile...to 5 for lowest quintile
- Least demand (best score) = 10.... to highest need for aid for trade = 50

Potential demand for aid for trade

Countries in the bottom two quintiles

Congo Lesotho Tanzania Moldova Gabon Colombia Vanuatu Laos Haiti Gambia Zambia Uganda Sudan Mauritius Kyrgyzstan Saint Vincent and the Sao Tome and Principe Burundi Paraguay Mali Guinea Ethiopia Burkina Faso Solomon Is Yemen Syrian Arab Republic Comoros Rwanda Papua New Guinea Niger Madagascar Micronesia Fiji Nepal Eritrea Tajikistan Namibia Uzbekistan Jamaica Congo DR Benin Somalia Samoa Malawi East Timor Central African Sierra Leone Guyana

Does potential demand match supply?

Aid for trade (GDP) is determined by potential demand, p.c. income, and aid effectiveness...

ARM GEO Supply of aid for trade /GDP BIH NIC DMA TMP MNG STP BOI Good news: positive GUY TON •KHW HTMB correlation VNM MORAM PNGTJK TNDBTN GNRD LBR MOZ YEM NPL MWI UZB BDI BGD MLI MDG SLE NER Other news: many MD\ countries underserved ERI IND GNQ TGO TCD

Potential demand for aid for trade

Conclusions... Aid for trade potential demand outstrips current supply

- While trade performance of developing countries as a group has been strong, many countries are performing below average and many countries are vulnerable to a slowing global economy
- Particular at risk are those with poor trade performance slow growth, declining market shares, and concentrated exports –
- …and those with poor infrastructure, institutions and export incentives
- While aid for trade supply is broadly correlated with potential demand, still, several countries that have the highest potential demand are receiving less- than- average levels of aid for trade.

Conclusions... A corollary about indicators

- Several indicators of trade performance are readily available from the World Trade Indicators, the International Trade Center, and the WTO's Trade Profiles
- Indicators of trade capacity also are available, and several are strong predictors of future trade performance
 - Infrastructure -- Logistics Performance Index (used here), the Limao-Venables index, and the communication index
 - Trade-related institutions -- customs component of the LPI and the time to export index of the Doing Business.
 - Incentives to exports include the tariff peak index and the OTRI
- But indicator gaps still remain, particularly on NTBs, implementation of FTAs, and services restrictions. The international community has to invest more in filling these gaps.

Selected References

For details to this presentation, see Elisa Gamberoni and Richard Newfarmer "Aid for Trade: Matching Potential Demand with Supply" World Bank, Sept 15, 2008

Collier, P. and D. Dollar (2002), "Aid allocation and poverty reduction", *European Economic Review*, Vol. 46 (8), pp. 1475-1500.

Djankov, S., Freund, C. and S. Pham Cong (2006), "Trading on time", *Policy Research Working Paper* 3909, The World Bank.

Francois J. and M. Manchin (2007), "Institutions, Infrastructure, and Trade", *IIDE Discussion Papers* 2007-401, Institute for International and Development Economics.

Hoekman B. and A. Nicita (2008), "Trade Policy, Trade Costs and Developing Country Trade".

Jansen, M. (2004), "Income volatility in small and developing economies: export concentration matters", World Trade Organization Publication.

Limao, N. and Venables, A. J. (1999), "Infrastructure, geographical disadvantage, and transport costs", *Policy Research Working Paper* 2257, *The World Bank*.

Nordas, H. and R. Piermartini (2004), "Infrastructure and Trade", *WTO Staff Working Paper*, World Trade Organization.

Turnovsky, S.J. and P. Chattopadhyay (2003), "Volatility and Growth in Developing Economies: Some Numerical Results and Empirical Evidence", *Journal of International Economics* 59. Wilson, J. S., Mann, C. L. and T. Otsuki (2004), "Assessing the potential benefit of trade facilitation: A global perspective", *Policy Research Working Paper* 3224, The World Bank.

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