

If you had the power to set the trade and trade-related policies of all countries in the world, what changes would you make to accelerate growth in Africa, and why? (7a in the 2007 exam)

Readings: Chapter 10 of Paul Collier, *The Bottom Billion*, Winters (2004); Wood (2003); Industrial policy debate readings; M-W-C chapters 9 and 12

Economic theory suggest that greater trade liberalization stimulates economic growth through increased access to technology and intermediate and capital goods, the benefits of scale and competition, improved flexibility induced by relying on market signals, and additional constraints on government incompetence or corruption.ⁱ According to the Winters (2004) review of the empirical literature on the effect of trade liberalization on poverty, however, one cannot conclusively claim that trade liberalization and openness stimulate long-run growth and income, especially since positive outcomes depend heavily on institutions, existing goods and labor market structure, and the overall policy environment. Nevertheless, empirics suggest that at the very least, there is no evidence that more open trade policies harm long-term growth, despite concerns about adverse distributional effects in the short term or increased macroeconomic volatility.ⁱⁱ Since sustained growth requires increases in productivity, which can be strongly enhanced by openness, trade liberalization remains a central element of growth strategies, especially since trade reforms are often accompanied by other policy changes that improve government accountability and remove costly macroeconomic distortions. Africa's mixed experience with trade reform highlights the essential lesson that trade liberalization should not be considered in isolation – complimentary policies are necessary to enhance long-term growth. Although virtually all successful economies have increased openness to trade, trade reform must be done and sequenced sensibly in order to provide for sustained, effective growth, with both developed and developing countries adopting responsible policies.ⁱⁱⁱ

This essay first proposes a series of trade policy reforms in agriculture and manufacturing in both developed and developing countries, and argues their merits and contribution to growth. Next the essay discusses the role of preferential trade policies towards Africa by developed countries to facilitate growth. Finally, the essay will conclude with some general observations about the efficacy of trade policy in promoting economic growth in Africa – in particular, commenting on the importance of creating complimentary policies to support greater openness and encourage investment.

Sectoral Policies:

Liberalizing Agricultural Trade

Agriculture represents a vital sector for most developing countries, accounting for 18% of GDP, 62% of male labor force employment, and 75% of female labor force employment in Sub-Saharan Africa.^{iv} Especially since agriculture provides the most important source of income for poor households and food comprises a substantial portion of total expenditure, agricultural trade policy is of vital concern. At the global level, substantial regimes of agricultural support by developed countries such as the United States, European Union, and Japan distort world prices and impinge upon the welfare of developing countries. At the national level, countries protect domestic agricultural products that compete with imports through quotas, border tariffs, and export subsidies. As shown in Figure 1, although both developed and developing countries maintain high tariffs on agriculture, the *relative* level of protection of agriculture to manufacturing in developing countries is less.

Full agricultural liberalization would substantially benefit Africa's growth. In particular, the high level of agricultural protection and price support in developed countries simultaneously serve to increase output and depress consumer demand. The resulting surpluses thus are sold on world markets, depressing world prices and displacing farmers in Africa, who have a comparative advantage in agriculture due to large endowments of land and unskilled labor. In addition, price stabilization policies enacted by developed countries, such as variable levies, prevent farmers and consumers from responding to price information. Consequently, greater burden of adjustment to shocks are transferred onto other market participants, disproportionately increasing fluctuations in world prices and harming developing countries, especially those who specialize in a few cash crops.^v

Binswanger and Lutz (2000) claim that full agricultural liberalization can benefit developing countries by US \$20B annually, while Anderson et al. (1999) argues that a 40% liberalization of agriculture can assist developing countries by US \$15B each year. As one of the most distorted markets, liberalization of agriculture can have a profound impact on poverty reduction in Africa, as shown in Figure 2. Since households are both producers and consumers of agricultural goods, liberalization of agriculture can have significant distributional impacts with net producers gaining from increases in world prices, while net consumers enduring a decrease in total welfare. In analyzing the effect of the Indonesian rice shock, Levinsohn, Berry, and Friedman (1999) revealed that the poor suffered disproportionately from price increases. A differing study by Goetz (1992) illustrated that due to high fixed transport costs and poor infrastructure, isolation of rural villages in Rwanda precluded farmers from gaining from trade – in short, geographic remoteness insulated villages from border policy changes, both attenuating and magnifying price changes depending on the local context. Likewise, depending on price transmission mechanisms, market linkages, and the capacity of farming households to adapt production in light of risk aversion, liberalization of agriculture may not be welfare enhancing, especially if essential input markets are missing. For example, although market liberalization in Malawi provided new opportunities for cash crop production of maize and tobacco, the poorest 25% experienced a relative worsening of income and food security.^{vi}

Despite these concerns, however, Africa would likely net benefit from full agricultural liberalization, especially given its land abundance and comparative advantage in agriculture. Wood (2003) argues that given Africa's natural endowments, similar to that of America, agriculture and mining will emerge as a primary sector, with a smaller manufacturing sector in comparison to land-scarce regions of Asia and Europe. Notably, agriculture has substantial growth linkages and positive spillovers. A study of the Green Revolution in the 1970s revealed that an extra dollar of agricultural revenue generated an additional 80 cents of non-agricultural income for local enterprises for two primary reasons. First, increased incomes in agriculture increased demand for outputs and factor inputs from other sectors. Second, locally produced non-tradeables comprise large shares of rural households' expenditures such that stimulating agriculture increases the demand for other services and goods produced by the poor. Consequently, Delgado (1998) study shows that \$1 in farm income led to increased total household income by \$2.88 in Burkina Faso, \$1.96 in Niger, \$2.48 in Senegal, and \$2.57 in Zambia, reflecting a strong Keynesian multiplier effect.

In short, the abolition of export and production subsidies in developed countries can have dramatic effect on growth and poverty in Africa. By improving access of African agricultural products to the markets of developed countries, growth can be substantially accelerated, especially given substantial growth linkages and positive spillovers. The benefits of agricultural liberalization, however, depend on a supportive policy and institutional environment to mitigate the potential harms experienced by poor

households that are net consumers of agricultural products, as well as the establishment of appropriate credit and insurance instruments to help farmers adapt profit from potential from gains from trade.

Targeting Industrial Trade Policy

Expansion of the manufacturing sector plays a primary role in development theory – in fact, models of economic take-off often rely on sectoral transition from agriculture to industry. As shown in Figure 3, manufactured goods account for a high percentage of exports of developed countries, and growth in East Asia has often been attributed to the expansion of the both skill-intensive and capital-intensive manufacturing and industrial production. Consequently, governments have often adopted industrial policies to alter the structure of production to favor sectors that are perceived to be more growth-enhancing. Especially since Africa depends heavily on exports of primary products, export diversification into manufactures are important not only in reducing exposure to terms of trade shocks, but promoting more balanced, sustainable growth. The three most common arguments for industrial policy are outlined below.^{vii}

First, the infant industry rationale suggests that although manufacturing has substantial knowledge spillovers and dynamic scale economies, domestic industries may never take off unless initially protected from foreign competition. Since production costs may be higher initially as a result of limited experience relative to foreign firms, temporary protection can be justified on the basis of global interest and aggregate increase in consumer welfare in the longer term, especially if the domestic industry has true comparative advantage once it reaches a critical mass. The underlying rationale is that allocating resources according to comparative advantage today does not necessarily guarantee dynamic efficiency. Hence, industrial targeting of key sectors which generate substantial learning-by-doing externalities can be an integral strategy of human capital formation, conducive to improving long-term growth.

Second, coordination failures may justify broad-based government intervention. Due to the presence of fixed costs, independent agents may have little incentive to invest in a particular sector, even though in aggregate, making the investment would be substantially beneficial to the country as a whole. For example, suppose two industries are inextricably linked in the same value chain – without establishing both industries simultaneously, neither would be competitive in global markets. If governments explicitly adopt policies to coordinate the development of both industries, then profits increase for both sectors, resulting in a social optimum.

Third, informational externalities may deter investment. If essence, a free rider problem arises between initial and subsequent investors. Given the lack of information about the production function of a modern manufacturing investment, entrepreneurs need to make a substantial investment ex ante in order to determine the profitability of the project. But if the investment has been made, all rents are eroded as new entrants adopt the proven the technology, thus reducing incentivizes to make the risky commitment in the first place. Hence, in important manufacturing industries where substantial barriers to entry exist, often in the form of information asymmetries or scarcity, under-investment in potentially profitable, growth-enhancing areas occurs.

The justification for industrial trade policy provides a useful starting point to discuss appropriate trade instruments. As shown in Figure 4, precisely because of these arguments, developing countries have much higher tariffs levied against manufactured goods. Utilizing trade policy to promote industrial development, however, can lead to substantial market distortions, resulting in rent-seeking behavior detrimental to long-term growth.

This essay argues that instead of using tariffs, taxes, and non-tariff trade barriers to protect developing industries, governments should aim for first best solutions through production subsidies to vital industries instead. Likewise, developed countries should adopt preferential agreements that increase market access of African manufactured goods relative to that from other countries, creating a much more inclusive and potent version of the African Growth and Opportunity Act (AGOA) worldwide, which will be discussed in the next section.

Normalizing for world prices and exchange rates, the effective rate of protection, defined as the percentage of value added at domestic prices relative to the theoretical value-added at world prices without government policies, can be simplified as:

$ERP = \frac{t_j - \sum a_{ij} t_i}{1 - \sum a_{ij}}$, where t_j is the tariff on good j and a_{ij} is the amount of input i necessary to produce one unit of good j . As shown from the equation, three key lessons emerge. First, the effect of nominal tariffs is amplified since the denominator is less than one – hence, adopting cross border policy barriers can have substantial, unintended scale impacts. Second, negative protection can result when tariffs on inputs (t_i) exceed tariffs on output (t_j). Especially since trade policy and tariff structures can be very complicated, governments may inadvertently stymie or stimulate certain industries as a result of relative tariffs between different goods. Consequently, protectionist measures often can have unintended, perverse consequences. Finally, negative value added can potentially occur. Even though value added may be positive at domestic price levels, domestic production can become so inefficient that the value of inputs exceeds outputs (denominator is negative), indicating negative value added at the world level.

Although classical economic theory suggests that removal of industrial trade barriers would increase overall welfare by rationalizing less-productive firms and increasing consumer welfare through cheaper goods, immediate trade liberalization can have severe negative consequences on employment as foreign competition may displace fledgling domestic industries. Nevertheless, gradual removal of industrial trade restriction is vital in stimulating competition and removing corruption, especially since trade restrictions often create parasitic industries whose profits depend only on government lobbying rather than productive efficiency.^{viii} As in the case of Latin America, import substitution policies lend itself to the pursuit of monopoly rents, which only exacerbate the costs of adjustment when trade liberalization and increased competition eventually occurs. Figure 5 presents a stylized representation of support policies for different categories of manufactures in order to promote export diversification and increasing industrialization.

In general, policy interventions should be targeted on the desired outcome – if promoting manufacturing constitutes the primary objective, production subsidies ought to be utilized rather than trade policy instruments, unless an administrative reason prevents the efficacy of the former. If information externalities or coordination failures deter investment, governments should create institutions or policy measures to promote information sharing or reduce the fixed costs of investment, or set up credit or insurance schemes to incentivize investment. Most importantly, by credibly communicating a transparent framework and timetable for industrial trade policy reform to the private sector, governments can encourage investment and forward-looking behavior. As Rodrik proposes, industrial policy ought to be considered a mind and general process of public-private cooperation, rather than a set of specific policies.^{ix} Without incurring the large expenses and welfare losses associated with sustaining losing industries under protectionism, governmental policy to increase information flow and coordinate industry investment can substantially boost the growth prospects of Africa.

Preferential Policies for Africa

According to Paul Collier, manufacturing in the bottom decline has declined over the last thirty years as a result of protectionist policies that have led to productivity stagnation and parasitic monopolies. Especially since African firms which export appear to benefit from striking productivity growth after correcting for the direction of causality, breaking into export markets rather than returning to the subsidization of domestic monopolies is essential for dynamic, long-term growth. In order to diversify exports into labor-intensive manufacturing and services, Collier believes that Africa needs temporary protection from Asia in order to allow the continent to surmount the initial hump of competitiveness. Temporary protection would occur in the form of lower tariffs from goods and services exported from Africa than the same goods coming from Africa, as in the case of AGOA. Although privileging Africa to low-income Asia does not appear fair, Collier argues that without such preferential policies, Africa will likely be doomed to wait until Asia becomes rich and wages rise substantially before manufacturing can develop.^x

Despite the political difficulties of such a proposal, the merits of establishing preferential policies to increase market access of African manufactures is highly important. Rather than fragmented bilateral agreements with many country exceptions and restrictions on specific goods and services, a pan-African framework ought to be adopted with more generous rules of origin to promote trade and employment linkages across Africa, while preventing re-exports from Asia. Similarly, the World Trade Organization should encourage an unreciprocated reduction in trade barriers against the poorest countries, especially in agricultural goods.

Conclusion

In conclusion, adopting more open trade policies can substantially benefit African economies and promote long-term growth. As shown in Figure 6, tariff reductions in the 1990s were positively and significantly associated with developing countries' export shares, which have real economic impacts on productivity and investment in human and physical capital.^{xi} While trade integration opens up new opportunities, however, it cannot ensure that effective growth strategies are effective. Empirical studies have shown that although trade reforms are associated with higher growth, the strength of the association depends on country-specific factors and complimentary policies. For example, although liberalization of trade in Argentina in the 1980s led to appreciation of the real exchange rate and a reduction in the competitiveness of the domestic industries and incentives to export, liberalization in East Asia has sparked tremendous economic take-off.

Nevertheless, poor infrastructure, missing markets, incomplete price transmission, rural isolation, rationalization and unemployment as a result of competition, and increased specialization in primary commodities have in some cases offset gains from liberalization. Hence, trade reforms depend on complimentary policies to create a sound macroeconomic framework, including building of trade-related infrastructure and institutions, investments in physical and human capital, creation of secure property rights, development of equitable and attractive investment frameworks, and maintenance of rule of law. In general, however, greater openness and the removal of cross border trade barriers require greater government accountability and reduce rent-seeking opportunities in the economy by

introducing competition. Furthermore, the sequencing of trade reforms must also be taken into account to minimize adjustment costs and maximize the benefits of greater trade openness (see footnote).¹

In trade of agricultural products, the developed world has a responsibility to remove distortionary subsidies and tariff policies that lower world market prices and harm market access by poor farmers. By improving access of African agricultural products to the markets of developed countries, growth can be substantially accelerated, especially given substantial growth linkages and positive spillovers. In manufacturing, gradual trade liberalization is essential to balance the dual objectives of encouraging industrial development with knowledge and production spillovers and diversifying away from primary products and commodities without creating insulated domestic monopolies. Overall, preferential policies by OECD countries and unreciprocated reduction in trade barriers to Africa may be necessary to reverse dismal growth performance in Africa.

¹ Adrian Wood proposes the following six step process (lecture notes: week 7). First, governments should stabilize the overall macroeconomic environment to prevent the conflation of policy adjustment dislocations with the effects of trade liberalization. Second, home bias should be reduced with lower barriers to exports – not just tariff and tax reductions, but improvements to infrastructure and removal of bureaucratic red tape in order to reduce transaction costs. Third, rationalize import barriers by converting quotas to tariffs and squeezing the tariff concertina by lowering the dispersion of tariff levels by bringing down the highest rates. Fourth, countries should reduce the general level of tariffs while simultaneously devaluing the exchange rate, taking into account the importance of finding alternative sources to raise government revenue from lost tariff levies. The timetable of tariff reduction would ideally be communicated clearly and credibly to the private sector to encourage potential investments. Fifth, encouraging foreign direct investment through the removal of barriers can help sustain the growth of industry. In general, Wood argues that only after the enactment of trade policy reforms should the country begin the liberalization of the capital account. For example, removing FDI barriers prematurely may result in foreign presence in protected industries, leading to even greater adjustment costs in the future. Finally, the rest of the capital account can be gradually liberalized.

Appendix

Figure 1. Average tariffs and tariff equivalents on merchandise trade, by commodity, source and destination, 1995 (percentages)

Exporting region	Importing region		
	Developed countries	Developing countries	World
<i>Agriculture</i>			
Developed countries	15.9	21.5	17.5
Developing countries	15.1	18.3	16.4
World	15.6	20.1	17.1
<i>Manufactures</i>			
Developed countries	0.8	10.9	3.8
Developing countries	3.4	12.8	7.1
World	1.5	11.5	4.7
<i>Minerals/energy</i>			
Developed countries	0.1	1.3	0.4
Developing countries	0.4	5.2	2.4
World	0.2	3.0	1.1

Source: Hertel et al. (1999).

Figure 2. Pathways between agricultural policy and poverty

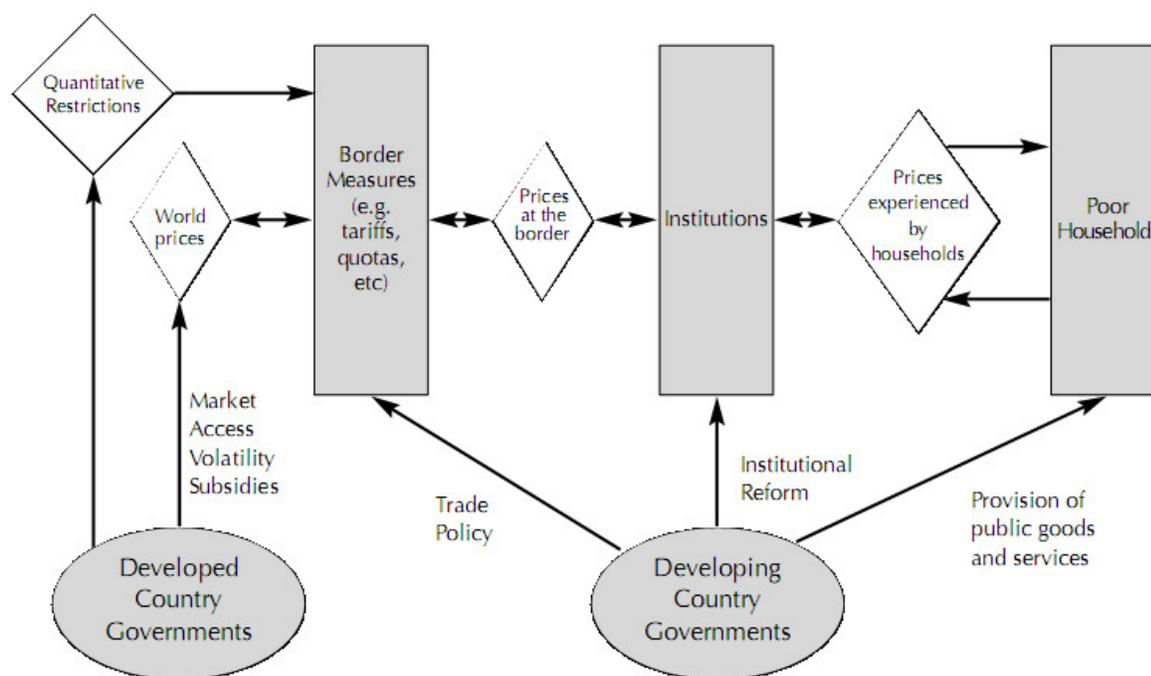


Figure 3. Shares of manufacturing in GDP, exports and imports, 1997 (percentages)

	<i>GDP</i>	<i>Exports</i>	<i>Imports</i>
Lower middle income	29	57	70
Upper middle income	21	54	77
East Asia and the Pacific	33	72	75
Europe and Central Asia	na	53	66
Latin America and the Caribbean	21	46	79
Middle East and North Africa	14	19	68
South Asia	19	76	54
Sub-Saharan Africa	17	na	na
High income	21	81	75

Note: The World Bank's 'high income' category includes OECD members, Hong Kong, Singapore, various oil states and several small countries that are not normally classified as 'developed', such as Bermuda, Reunion and French Guiana.

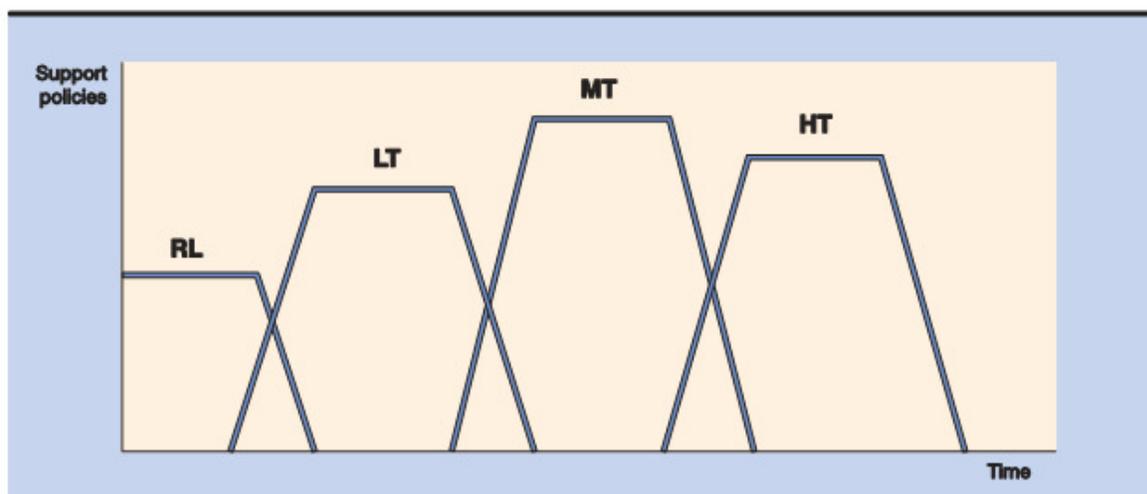
Source: World Bank (1999d).

Figure 4. Pattern of Protection in Manufactures, 1995

<i>Exporting region</i>	<i>Importing region</i>	
	<i>Developed countries (%)</i>	<i>Developing countries (%)</i>
Developed countries	0.8	10.9
Developing countries	3.4	12.8
World	1.5	11.5

Source: Hoekman and Martin (1999).

Figure 5. Stylized Representation of Support Policies for Different Manufactures^{xii}



Source: Adapted from Akyüz, 2005: 22.

Note: This is a stylized representation and should not be viewed as a precise mapping of relative levels of support measures required for specific product categories in individual countries. For the allocation of individual products to the four categories, see *TDR 2002*, annex to chapter III.

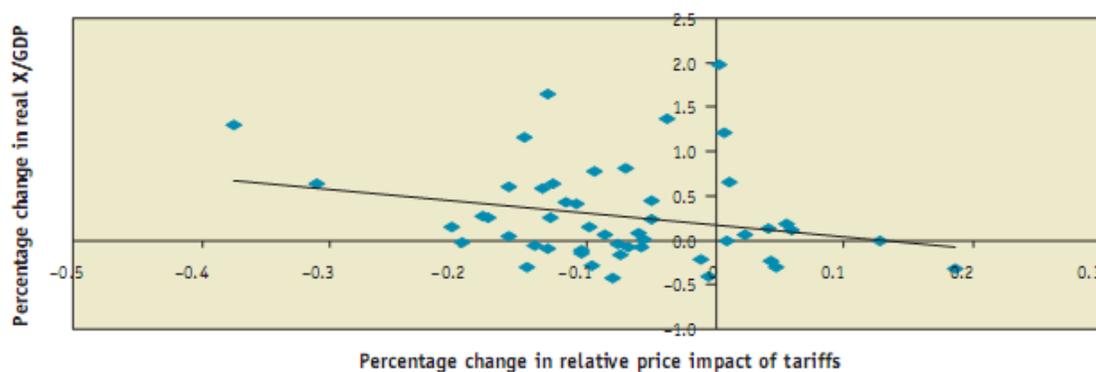
RL: Resource-based and labour-intensive manufactures.

LT: Low-technology-intensive manufactures.

MT: Medium-technology-intensive manufactures.

HT: High-technology-intensive manufactures.

Figure 6. Changes in Export Shares of GDP and Changes in Tariffs, 1990-2000



Source: World Bank staff calculations, available at <http://siteresources.worldbank.org/INTRANETTRADE/Resources/tar2002.xls>.

Note: Changes are for the entire 10-year period 1990-2000, not annual changes. The correlation coefficient is -0.25 and statistically significant.

ⁱ Grossman, Gene; Helpman, Elhanan. *Innovation and Growth in the Global Economy*. MIT Press, 1991.

ⁱⁱ Winters, Alan; McCulloch, Neil; McKay, Andrew. "Trade Liberalization and Poverty: The Evidence so Far." *Journal of Economic Literature*. Vol XLII, pp 72-115. March 2004.

ⁱⁱⁱ Economic Growth in the 1990s: Learning from a Decade of Reform. World Bank, 2005.

^{iv} Hertel, Thomas, et al. "Agricultural and Non-agricultural Liberalization in the Millennium Round." CIES Working Paper No. 16. March 2000.

^v McCulloch, Neil; Winters, Alan; Cirera, Xavier. *Trade liberalization and Poverty: a handbook*. DFID, 2001.

^{vi} Since the poor are highly risk averse, a poverty trap potentially occurs when optimally, a household would invest in switching production to a cash crop with higher expected payoff but greater volatility, but the poor decide not to alter production due to inability to access credit or insurance markets.

^{vii} Pack, Howard; Saggi, Kamal. "Is There a Case for Industrial Policy? A Critical Survey." World Bank, 2006.

^{viii} Anam, Mahmudul; Katz, Eliakim. "Rent-seeking and Second Best Economics." Public Choice. Volume 59, No 3. December 1988

^{ix} Rodrik, Dani. "Industrial Policy for the 21st Century." John F. Kennedy School of Government. September 2004.

^x Collier, Paul. The Bottom Billion. Oxford University Press, 2008.

^{xi} Harrison, Ann; Tang, Helena. "Liberalization of Trade: Why so Much Controversy?" World Bank. April 2005.

^{xii} "National Policies in Support of Productive Dynamism." United Nations, 2006.