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Taxed to Death

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Executive Summary

This paper examines the role that tariffs, domestic taxes, and regulatory requirements pose on access to essential drugs and devices for the diseases that afflict the developing world, especially HIV/AIDS. While aid has increased in recent years and the price of many drugs has fallen, access to medicines and devices has not increased greatly. There are numerous reasons for this. The major one, discussed in this paper, is the barrier imposed by recipient countries themselves. For example the combined tax and tariff barrier in India until recently was over 60% and in Morocco it currently stands at 38%. Only just over a third of Indians have access to essential drugs and it is likely that a reduction of these financial impediments would increase access. Removal of these barriers would therefore likely save thousands of lives across the developing world. Southern African countries generally have fewer tariff barriers. But if South Africa removed its 14% sales tax, HIV patients could afford more food, and many are currently malnourished. Furthermore, many Southern African countries, such as Namibia, impose regulatory constraints (expensive and time consuming registration of products already approved in US/EU), which reduce access to essential medicines.

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1. Introduction

Approximately one third of the world's population lacks access to essential medicines and proper medical treatment. Malaria, tuberculosis, HIV/AIDS and other parasitic and diarrhoeal diseases claim millions of lives every year in developing countries. As many of these diseases are preventable and entirely curable, developing country governments and the international community should consider improving access to the medicines that treat these illnesses of utmost importance. Unfortunately, far from enabling better and cheaper access to medicines, some states impose barriers, such as import tariffs, taxes and onerous bureaucratic hurdles to medical care. Unless these countries wish only the wealthy elites to have access to medicines, they must make widespread changes to their domestic taxes, tariff and regulatory structures.

Improving access to medicines has been the focus of countless United Nations initiatives and has been a major preoccupation of the World Trade Organisation's Doha Development Round. Much of the focus on improving access to medicines has been on the price of those medicines, and specifically the price at which drug manufacturers sell their product. In recent years a great deal of progress has been made in reducing the cost of essential medicines and on giving poor countries greater flexibility in importing cheap medicines.

Some countries, such as Botswana, have made important progress in increasing access to essential medicines, particularly for HIV/AIDS and related illnesses. As we describe below, Botswana also has one of the lowest overall taxes and tariffs burden of the countries examined. However, desperately slow progress in most poor countries overshadows the few successes in improved medical care and access to medicines in the developing world. As a result, poor countries will not meet the World Health

Organisation's target of treating 3 million people with antiretroviral drugs for HIV/AIDS by 2005.¹

There are numerous reasons for this slow progress. Primarily, poor countries simply lack the medical personnel and healthcare infrastructure to provide essential medical care and treatment. Along with this, severe poverty means that ordinary people simply cannot pay for even the cheapest medication. In the long run, the health status of people in poor countries will only ever improve with higher rates of economic growth and greater wealth. However, governments can take steps immediately to help improve access to medicines by removing the distorting tariffs and taxes that increase medicine and medical device prices. One of the world's leading agencies involved in improving healthcare and access to medicines, The Global Fund for AIDS, TB and Malaria, considers that taxes and tariffs inhibit access to medicines. Global Fund grant agreements specifically state that "the assistance financed hereunder shall be free from any customs duties, tariffs, import taxes, or other similar levies and taxes (including value-added tax) imposed under laws in effect in the Host Country."

Reducing import tariffs and increasing international trade would directly benefit the world's poorest people. The World Bank estimates that if we were living in a tariff-free world, income around the globe would increase by \$832 billion as a result of increased trade in all goods. Most of these gains (\$539 billion) would flow to developing countries². Removing the tariffs and taxes on medicines and other essential medical inputs would be of even greater merit as it would improve access to life-saving products.

2. Methodology

In order to understand the impact of taxes and tariffs on access to medicines and medical care, we first must identify the chemical compounds used in the treatment of the major communicable diseases. In order to do this we used the Essential Drugs List (EDL)

¹ By December 2004, according to the WHO, only 700 000 people were being treated on antiretroviral treatment in developing countries. WHO, Joint media release WHO/UNAIDS/Global Fund/US Government. See AEI HPO *Slippery AIDS Statistics* by Roger Bate May 2005 for a discussion of how the 700,000 figure is inflated by 10%.

² World Bank (2002) 'Global Economic Prospects and the Developing Countries', Washington D.C, World Bank

published by the World Health Organisation. We identified the customs classification of these drugs using an international benchmark namely the Harmonised System (HS) produced by the Customs Cooperation Council. The HS forms the basis by which goods are encoded, trade statistics are developed and from which the customs and excise authorities in various countries compile their tariffs³.

The study analyses items classified at the 6-digit level of the Harmonised System. This is done so that a sufficiently broad level of disaggregation is obtained. Any higher level of disaggregation would have jeopardised the comparability between countries and any lower disaggregation would not have correctly identified items listed on the EDL.

Pharmaceutical goods are classified in either chapter 29 or chapter 30 of the Harmonised System (HS). Goods classified in Chapter 29 are the basic organic compounds used in the manufacture of pharmaceutical products.⁴ Goods classified in Chapter 30 are the manufactured pharmaceutical products. The Chapter 29 tariffs are likely to affect countries that have domestic medicine manufacturing capacity the most. Many developing countries do not have this; however others, such as India, Brazil and Thailand, are among the world's largest and most successful generic drug manufacturers.

There are approximately 27 HS 6-digit headings corresponding to products used in the treatment of the major communicable diseases. In addition the study includes 3 additional headings, which cover items such as bandages and gauze strips as well as medicine boxes.

Readers should be aware that reliable and contemporary data on import tariffs and other duties is often unavailable. We have done our best to use data from the most reliable sources. Where we were uncertain about data, we tried to confirm the information with the trade representatives at country embassies and high commissions.

³ There are 23 major sections of the HS, containing a total of 98 chapters which have 1 241 main 4-figure headings. These headings are further divided into approximately 5000 subheadings or codes. The headings and subheadings in the HS are mandatory and cannot be changed. However, each national authority can extend the codes and add any subdivisions, which it may find necessary.

⁴ Readers should be aware that certain chemicals are included in the Chapter 29 classifications that have no pharmaceutical application.

3. State-Imposed Barriers to Drug Access

Many factors determine the price of a medicine in different countries. First, domestic healthcare and pricing policies, as well as market size, the degree of competition and the extent to which the government protect the intellectual property of patented drugs often determine the price at which the manufacturer sells his product. Along with these factors, the mark-up that distributors and retailers make can greatly influence the price of a medicine to the patient.

However, the various campaigns to lower the price of medicines have placed little emphasis on the state-imposed barriers to access. The import tariffs, duties and taxes that various governments impose can increase the price of medicines significantly. In addition to these taxes, there are several non-tariff barriers, such as lengthy registration periods for medicines and onerous requirements to clear customs.

Table 1 below details the average import tariffs, taxes and duties that selected countries apply for Chapter 29 and 30 products. As this table shows, there is very wide variation in the level of taxation imposed by the various countries. The WTO Pharmaceutical Agreement, an outcome of the Uruguay Round, led to reciprocal elimination of import tariffs on around seven thousand pharmaceutical products. However, only 22 countries are part of this agreement, and many developing countries continue to impose import tariffs on pharmaceutical products⁵.

Import tariffs

Import tariffs on Chapter 29 and 30 products vary widely. Some countries such as Malaysia and Brunei impose zero import tariffs, but on certain items, tariffs can be as high as 50%, as in the case of Morocco. Many African countries maintain very low or negligible import tariffs on completed pharmaceuticals and on the Chapter 29 intermediate pharmaceutical products. The notable exceptions to this are the Democratic Republic of Congo (DRC), Ghana, Kenya, Tanzania, Uganda and Zimbabwe.

⁵ The signatories of the WTO Pharmaceutical Agreement are 15 member states of the European Union, the US, Switzerland, Japan, Canada, Norway, Czech Republic, Slovak Republic and Macau-China.

The DRC's import tariffs on completed pharmaceuticals varies from 10% on most products, to 15% on any medicines containing penicillin, to a high of 18.3% on a range of products, such as antidepressants, anaesthetics, cough and cold preparations and diuretics. The Chapter 29 tariffs are fixed at 5% for all goods, resulting in an average import tariff of 8.8%. Zimbabwe, which is currently facing a healthcare crisis and an average life-expectancy of only 33 years, imposes a 5% tariff on most medicines, although it does have a zero tariff for vaccines. Zimbabwe's tariffs for adhesive dressings and bandages, however is set at 20%, perhaps in an effort to protect a local industry from international competition.

India and Brazil both have large and successful generic drug manufacturing industries, and these countries' tariff structures reflect their tradition of trade protection, especially the alleged desire to encourage domestic industries and shield them from international competition. Brazil maintains an average tariff on Chapter 29 goods of 7.4%, ranging from a low of 4.5% on antibacterial drugs to a high of 16.5% on tuberculosis drugs. Brazilian tariffs on completed pharmaceuticals average 11.7%, with a low of 2.5% on vaccines and a high of 16.5% on sterile surgical catgut and other surgical products.

Until recently, India's trade protection on pharmaceutical and medical products was on average the highest among the countries studied. India maintained an average import tariff of 38.2% on Chapter 29 and Chapter 30 products, with a high of 42% charged on bandages, surgical equipment and pharmaceuticals containing penicillin. India's import tariffs included a 40% charge on the active ingredients to antiretroviral drugs, antimalarial drugs and antibiotics.

Currently India imposes a 16% excise duty as well as counter-veiling duty of 16% on items from some countries. In addition, the state imposes a custom duty of between 0% and 5% on items, depending on whether or not they are eligible for exemption⁶. Along with the confusing system of local state taxes, import tariffs for active ingredients and for some completed pharmaceuticals could potentially be increased by over 40%^{7 8}.

⁶ Life saving drugs are exempted from the customs duty, but other medicines can still be subject to the 5% customs duty.

⁷ Our regression analysis however only uses the conservative estimates of 16% tariff plus 4% VAT

Tariffs are not the only way in which governments increase the price of pharmaceuticals and medical products for patients. Some governments have a zero value added tax rating for medicines. However, many do charge VAT, and the rates range from 0% in Brunei to 19% in Peru. India maintains a complex set of sales taxes that vary from state to state and recently introduced VAT. Officially the VAT rate on medicines should be 4% (as depicted in table 1 below) however many states continue to impose the old sales taxes that VAT was supposed to replace. This means that in some cases medicines could be taxed twice, increasing the cost of medicines by well over 10%. In recent years, the South African government has passed draconian drug pricing regulations in an effort to reduce the price of medicines to private consumers, yet the government maintains a 14% VAT on all medicines⁹. Many countries also impose other charges and duties. For instance, Kenya imposes an 8% port charge, a 1% clearance and freight charge and a 2.75% charge for pre-shipment inspection¹⁰.

Amongst African countries taken together, these charges and duties ensure that the combined state-imposed increase in prices to patients from Chapter 29 and 30 products range from as low as 11% in Botswana and Namibia to as high as 38% in Kenya and Morocco.

Some regional trade groups, such as the Southern African Customs Union, have made significant progress in reducing or removing import tariffs. Other countries however are moving in the opposite direction. On 1 January 2005, both Kenya and Uganda imposed 10% import tariffs on all imported medicines in line with East African Customs Union protocols. The harm that these newly imposed tariffs will cause is likely to be considerable. The Kenyan government failed to meet its target of treating 45,000 patients on antiretrovirals at the end of 2004, treating only 24,000. The increased cost of treatment adds another hurdle to the government's already ambitious aim of treating 95,000 by the end of 2005. According to Dr Patrick Orege, director of the National

⁸ The Indian government does waive duties on some imported goods, such as Information Technology (IT) products, but maintains duties on medicines.

⁹ The South African government has been challenged at the highest court in the land, the Constitutional Court, over its attempts to control drug prices and regulate the mark-up that pharmacists may make.

¹⁰ It is not clear what the purpose or benefit of this pre-shipment inspection is.

AIDS Control Council, the tariff issue is "...problematic – this increase should be addressed urgently, so that we can meet our goals."¹¹

In addition to the taxes listed above, certain countries impose additional taxes and duties for which we have not accounted. For instance, Lesotho, with a life expectancy of just 36.3 years in 2002, imposes a 10% withholding tax on all medicines. In implementing this tax, the state withholds 10% of the value to be paid to the supplier. In anticipating this, the supplier normally increases the total amount invoiced by 10%¹².

As table 2 below shows, there are enormous differences between the health status of citizens of the countries examined and their access to medicines. As we have already explained, there are several factors that influence the price at which a medicine sells in any particular country, as well as a variety of reasons for access to medicine to differ from country to country.

However, as our regression analysis below shows, there is a significant, negative relationship between the levels of tariffs imposed by governments and access to essential medicines. Our analysis suggests that a 1% reduction in import tariffs will increase access to essential medicines by just under 1%. Of course, this is an extremely tentative result since confounders, such as literacy, healthcare facilities have not been ruled out as plausible alternative explanations for lack of access – usual interpretations from regression analyses are therefore not drawn. Further research will address these confounders and perhaps lead to stronger conclusions.

India, which until recently maintained the world's highest import tariffs for medicines and has over 5 million people living with HIV/AIDS¹³. Access to antiretroviral therapy is extremely low, with only 20,000 to 36,000 receiving treatment¹⁴. Even the most basic treatment for preventable and curable diseases is out of reach of most Indians. According to the United Nations, only 35% of the Indian population has access to essential medicines, yet this might be increased had the country removed import tariffs on chapter 29 and 30 goods many years ago.

¹¹ "Kenya; New Tax Jeopardises HIV Treatment Access" Africa News 2/10/05

¹² Pers comm.. Matebele Sefali, National Drug Service Organisation, Lesotho. 16 March 2005

¹³ UNAIDS 2004. 2004 Report on the Global AIDS Epidemic.

<http://www.unaids.org/bangkok2004/report.html>

¹⁴ WHO 2004. The 3x5 Progress Report. <http://www.who.int/3by5/progressreport05/en/>

Among African countries, Uganda has one of the highest import tariffs and taxes, which increase the price of drugs by 31% to consumers, yet 70% of the population obtain essential medicines. Nonetheless, despite this relatively high drug access for an African country, AIDS NGOs assert that the high tariffs are undermining the government's efforts to increase antiretroviral treatment. In Kenya, which has higher taxes and tariffs than Uganda at 37.75%, only 36% of the population are able to treat themselves with essential medicines.

Although South Africa does not have import tariffs, the government does impose VAT on all medicines. The country has one of the highest rates of HIV infection in the world and the government's program to provide antiretroviral therapy through the state healthcare system has been delayed and is largely inadequate, as a result many people living with HIV/AIDS seek treatment through the private sector.

A month's supply of antiretroviral triple therapy consisting of Combivir and Nevirapine, is likely to cost R 586 (\$101) for the drugs alone. Of this amount, R72 (\$14) is paid directly to the South African government in the form of VAT. If the government were to waive VAT, however, patients would be able to afford more of the fresh fruit, vegetables and meat that they should consume in order to remain healthy and be able to maintain their antiretroviral therapy. Among the billions of Rand raised by the South African government, the R72 raised via VAT on each person's monthly antiretroviral therapy makes little difference to the life of the government, but that money can make an enormous difference to the lives of ordinary South Africans living with HIV/AIDS¹⁵.

4. Bureaucracy and Delays in Delivery

The taxes and tariffs that governments impose directly increase the cost of medicines and medical equipment to patients. However, there are other non-tariff barrier costs that, while difficult to quantify, increase the cost of medicine. Onerous and difficult customs procedures that delay the transit of goods not only delay getting medicines to patients, they also add to the costs of manufacturers, agents and distributors.

¹⁵ Table 5 below details the basket of goods that a patient could afford if the South African government did not impose VAT on medicines.

For instance, the US government warns that Nigeria's "ports continue to be a major hindrance for importers. While some domestic manufacturers applaud the 100 percent inspection regime, for most the new system has delayed the already notoriously slow customs clearance process further."¹⁶ It isn't only commercial organisations that face barriers to importing goods to Nigeria. According to NGO reports, the President of Nigeria himself must authorise customs exemptions for donated medicines. This inevitably leads to immense delays in clearing the goods; consequently those in need of treatment are left without it.

While Nigeria's port system may well be one of the slowest and most corrupt in Africa, anecdotal evidence suggests that many other African countries have a great deal of scope to improve their port and customs procedures as well.

Apart from the slow process of clearing goods through customs, most African countries require that pharmaceutical products are registered with their own medicine control agencies, even when the medicines are registered for use in the US, the EU and Japan. In these cases, domestic drug regulators simply delay the approval of medicines that have already been approved by and are being used in other markets.¹⁷

The South African drug regulator, the Medicines Control Council (MCC) is notoriously inefficient and tardy with its approval process. On average, drugs that have already been registered for use in the US, EU and Japan can wait for 39 months for approval in the South African system¹⁸.

In 2002, the Namibian Medicines Control Council announced that it required all drug manufacturers to re-register all medicines that were registered in the country prior to 1990, the year Namibia gained independence. There is no reasonable healthcare argument in favour of this requirement. The move amounts to shameless bureaucratic empire building by the Namibian department of health.

The inefficiency and obstructionism of drug regulators imposes enormous, though largely unquantifiable, costs on manufacturers and patients. Along with the direct costs

¹⁶ US Trade Representative, "Foreign Trade Barriers – Nigeria" US Government.

¹⁷ Where a therapy is designed to treat an infectious disease in a developing country, domestic drug regulators play an important role because drug manufacturers do not register these medicines in developed countries. A private agency, however, might do a more efficient and effective job of ensuring that drugs are safe and effective.

¹⁸ Health Systems Trust "Drugs for the poor collect dust as council drags its feet" 23 April 2004, <http://www.hst.org.za/news/20040355>

of compliance, drug manufacturers face the considerable opportunity costs of not being able to sell their product. These costs however pale in comparison to the costs faced by patients forced to go without a particular therapy for several years while the domestic medicine control agencies satisfy themselves that the drug is safe.

Reforming the regulatory regime and customs procedures is an essential step for developing countries to take in order to reduce the cost of medicines to the world's poorest people. Many developing countries face considerable difficulties with fake or counterfeit drugs being imported and sold to unsuspecting patients. Governments should reform the regulatory and customs procedures in a way that does not compromise the quality of medicines, but improves the trading environment for legitimate producers and distributors.

5. Discussion

Countries impose import duties for one of two reasons; either to protect a local manufacturing sector from cheaper imports and competition or to raise revenue. The specific taxes, such as Value Added Tax (VAT), that are charged on completed pharmaceutical drugs and medical inputs are designed purely to raise revenue for central government. The fact that tariffs are used more as a barrier to entry than VAT is borne out by the greater significance it has, as compared to VAT, when regressed on drug access (see table 3).

One could make the argument that the presence of import tariffs does, for some countries, protect the local pharmaceutical industry. Should these tariffs be removed and the local manufacturing industry close down as a result, some countries could face higher medicine prices if they are solely reliant on imports. This however is a tenuous argument as in almost all instances it is not trade protection that reduces costs to consumers, but competition.

Trade protection usually frustrates competition, protects inefficient industries, reduces innovation and in the long term increases costs to consumers. The high import tariffs that India keeps in place bring little benefit to most Indian consumers, but they do protect and enrich the highly successful generic drugs industry. Access to essential

medicines in India is abysmally low, at just 35%. If the Indian government had not maintained the high levels of protectionism for so many years, it is likely that significantly more people in that country would have access to essential medicines.

Poor and developing country governments often raise a considerable portion of their budget from import tariffs. Reducing or removing import tariffs on medicines and medical equipment will reduce the government budget and thus will face some resistance from within government. But these barriers must be reduced or removed. These tariffs and taxes are highly regressive and penalise the poorest and most vulnerable sectors of society. In a democratic state, removing these taxes should be both politically popular and feasible.

Reducing and removing the taxes and tariffs that keep essential medicines out of the hands of patients can and should be a priority for poor and developing country governments. Failing to do so makes a mockery of any government's stated desire to improve access to medicine and to improve medical care.

Table 1 Average Tariffs, Taxes and Duties applied to Chapter 29 and Chapter 30 products, selected countries

| Country | Tariff | VAT | Other Taxes | Other Duties | Combined |
|--------------------------|--------|------|-------------|--------------|------------|
| Algeria | 9.5 | 11.5 | - | - | 21 |
| Bangladesh | 6.6 | 15 | - | - | 22 |
| Benin (WAEMU) | 1.6 | 17.5 | 2 | - | 21 |
| Bolivia (AC) | 10 | 13 | - | 1.94 | 25 |
| Botswana (SACU) | 0.85 | 10 | - | - | 11 |
| Brazil | 9.6 | 18 | 1 | - | 29 |
| Brunei (ASEAN) | 0 | 0 | - | - | 0 |
| Burkina Faso (WAEMU) | 1.6 | 17.5 | 2 | - | 21 |
| Cambodia (ASEAN) | 3.5 | 10 | - | - | 14 |
| Cameroon | 5 | 18.7 | - | - | 24 |
| Central African Republic | 5 | 18.7 | - | - | 24 |
| Chad | 5 | 18.7 | - | - | 24 |
| China | 6.5 | 17 | - | - | 24 |
| Colombia (AC) | 10 | 10 | - | - | 20 |
| Congo, Dem Rep | 8.8 | 13 | - | - | 22 |
| Congo, Rep | 5 | 18.7 | - | - | 24 |
| Costa Rica | 0.6 | 13 | - | - | 14 |
| Cote d'Ivoire (WAEMU) | 1.6 | 17.5 | 2 | - | 21 |
| Dominican Republic | 2.4 | 15 | 2 | - | 19 |
| Ecuador (AC) | 10 | 12 | - | - | 22 |
| El Salvador | 1 | 13 | - | - | 14 |
| Ghana | 10 | 12.5 | - | - | 23 |
| Guinea Bissau (WAEMU) | 1.6 | 17.5 | 2 | - | 21 |
| Honduras | 1 | 12 | 0.5 | - | 14 |
| India | 16 | 4 | - | - | 20* |
| Indonesia (ASEAN) | 4 | 10 | - | - | 14 |
| Kenya (EACU) | 10 | 16 | - | 11.75 | 38 |
| Laos (ASEAN) | 1.6 | 10 | - | - | 12 |
| Lebanon | 2.8 | 10 | - | - | 13 |
| Lesotho (SACU) | 0.85 | 10 | - | - | 11 |
| Madagascar | 5 | 9 | - | - | 14 |
| Malaysia (ASEAN) | 0 | 10 | - | - | 10 |
| Mali (WAEMU) | 1.6 | 17.5 | 2 | - | 21 |
| Mexico | 11.8 | 12.5 | 0.8 | - | 25 |
| Morocco | 18.5 | 19 | - | - | 38 |
| Mozambique | 1 | 6 | US \$50 | - | 7 + US\$50 |

| | | | | | |
|---------------------|------|------|-----|-----|-----|
| Myanmar (ASEAN) | 1.2 | 5 | | - | 6.2 |
| Namibia (SACU) | 0.85 | 10 | | - | 11 |
| Niger (WAEMU) | 1.6 | 17.5 | 2 | - | 21 |
| Nigeria | 20 | 5 | 2.9 | - | 28 |
| Pakistan | 12 | 15 | - | - | 27 |
| Peru (AC) | 10 | 19 | - | - | 29 |
| Philippines (ASEAN) | 4.4 | 10 | - | - | 14 |
| Senegal (WAEMU) | 1.6 | 17.5 | 2 | - | 21 |
| South Africa (SACU) | 0.85 | 14 | - | - | 15 |
| Swaziland (SACU) | 0.85 | 14 | - | - | 15 |
| Tanzania (EACU) | 10 | 20 | - | 6.2 | 36 |
| Thailand (ASEAN) | 11.1 | 7 | - | - | 18 |
| Togo (WAEMU) | 1.6 | 17.5 | 2 | - | 21 |
| Uganda (EACU) | 10 | 17 | 4 | - | 31 |
| Venezuela (AC) | 10 | 15 | - | - | 25 |
| Vietnam (ASEAN) | 2.2 | 15 | - | - | 17 |
| Zimbabwe | 7.5 | 15 | - | - | 23 |

- For Cameroon, Central African Republic, Chad and the Republic of Congo: There is a 5 percent duty on basic necessities, 10 percent on raw materials and capital goods, 20 percent on intermediate and miscellaneous goods, and 30 percent on consumer goods. Furthermore, there is an 18.7 value added tax on CIF + duty. It is not clear how these countries classify Chapter 29 and 30 products.
- * In April 2005 India introduced a VAT of 4% on medicines. Many states in India however continue to charge VAT as well as the erstwhile sales taxes which could increase the cost of medicines by as much as 30%. India also recently reduced import tariffs to 16%, from an average of 38%. Until April 2005, the average tariffs and taxes in India were approximately 61%.

AC – Andean Community

ASEAN – Association of Southeast Asian Nations

EACU – East African Community Customs Union

SACU – Southern African Customs Union

WAEMU – West African Economic and Monetary Union

Table 2 Overall taxation rates, health indicators and access to essential medicines (2002)

| Country | Adult (15-49) HIV/AIDS Prevalence (%) | Est. coverage of antiretroviral therapy (%) | % of pop. living in areas with DOTS coverage | Malaria cases per 100 000 people | Access to essential Drugs (% , 1999) | Life expectancy at birth | Average overall taxes and tariffs |
|--------------------------|---------------------------------------|---|--|----------------------------------|--------------------------------------|--------------------------|-----------------------------------|
| Algeria | 0.1 (03) | Nd | 100 | 2* | 95 | 69.5 | 21 |
| Bangladesh | nd | Nd | 95 | 40** | 65 | 61.1 | 22 |
| Benin (WAEMU) | 1.9 | 5.1 | 100 (02) | 10 697* | 77 | 50.7 | 21 |
| Bolivia (AC) | nd | Nd | 86 | 378 (00) | 70 | 63.7 | 25 |
| Botswana (SACU) | 37.3 | 23.9 | 100 | 48 704 | 90 | 41.4 | 11 |
| Brazil | 0.7 | 100 | 25 | 344 (00) | 40 | 68.0 | 29 |
| Brunei (ASEAN) | <0.1 | Nd | 100 | Nd | 99 | 76.2 | 0 |
| Burkina Faso (WAEMU) | 4.2 | 2.5 | 100 | 619 | 60 | 45.8 | 21 |
| Cambodia (ASEAN) | 2.6 | 5.0 | 100 | 476 | 30 | 57.4 | 14 |
| Cameroon | 6.9 | 8.9 | 90 | 2 900* | 66 | 46.8 | 24 |
| Central African Republic | 13.5 | Nd | 75 | 2 207* | 50 | 39.8 | 24 |
| Chad | 4.8 | Nd | 98 | 197* | 46 | 44.7 | 24 |
| China | 0.1 | 8.4 | 78 | 1 | 85 | 70.9 | 24 |
| Colombia (AC) | 0.7 | Nd | 14 | 250 (00) | 88 | 72.1 | 20 |
| Congo, Dem Rep | 4.2 | 0.8 | 70 | 2 960* | Nd | 41.4 | 22 |
| Congo, Rep | 4.9 | 2.4 | 20 | 5 880 (00) | 61 | 48.3 | 24 |
| Costa Rica | 0.6 | Nd | 84 | 42 (00) | 100 | 78.0 | 14 |
| Cote d'Ivoire (WAEMU) | 7.0 | 4.5 | 74 | 12 152 (00) | 80 | 41.2 | 21 |
| Dominican Republic | 1.7 | 2.6 | 40 | 6 (00) | 66 | 66.7 | 19 |

| | | | | | | | |
|-----------------------|------|------|----------|-------------|-----|------|---------|
| Ecuador (AC) | 0.3 | Nd | 37 | 728 | 40 | 70.7 | 22 |
| El Salvador | 0.7 | 30.3 | 100 | 11 | 80 | 70.6 | 14 |
| Ghana | 3.1 | 0.2 | 100 | 15 344 | 44 | 57.8 | 23 |
| Guinea Bissau (WAEMU) | nd | Nd | 20 | 2 421* | 44 | 45.2 | 21 |
| Honduras | 1.8 | 17.8 | 100 | 541 | 40 | 68.8 | 14 |
| India | 0.9 | 4.2 | 52 | 7 | 35 | 63.7 | 19 |
| Indonesia (ASEAN) | 0.1 | 22.5 | 98 | 920 | 80 | 66.6 | 14 |
| Kenya (EACU) | 6.7 | 3.1 | 100 | 545 | 36 | 45.2 | 38 |
| Laos (ASEAN) | 0.1 | Nd | 77 | 759 | 66 | 54.3 | 12 |
| Lebanon | 0.1 | Nd | 100 | nd | 88 | 73.5 | 13 |
| Lesotho (SACU) | 28.9 | Nd | 100 | 0* | 80 | 36.3 | 11 |
| Madagascar | 1.7 | 0.0 | 100 | nd | 65 | 53.4 | 14 |
| Malaysia (ASEAN) | 0.4 | 67.5 | 100 | 57 | 70 | 73.0 | 10 |
| Mali (WAEMU) | 1.9 | 3.4 | 68 | 4 008* | 60 | 48.5 | 21 |
| Mexico | 0.3 | 100 | 70 | 8 | 92 | 73.3 | 25 |
| Morocco | 0.03 | Nd | | | 66 | 68.5 | 38 |
| Mozambique | 12.2 | 1.1 | 100 | 18 115 (00) | 50 | 38.5 | 7 +\$50 |
| Myanmar (ASEAN) | 1.2 | nd | 88 | 224 | 60 | 57.2 | 6 |
| Namibia (SACU) | 21.3 | 1.3 | 60 | 1 502 | 80 | 45.3 | 11 |
| Niger (WAEMU) | 1.2 | nd | 81 | 1 693 (98) | 66 | 46.0 | 21 |
| Nigeria | 5.4 | 2.3 | 55 | 30 | 10 | 51.6 | 28 |
| Pakistan | 0.1 | nd | 45 | 58 | 65 | 60.8 | 27 |
| Peru (AC) | 0.5 | 23.8 | 100 | 258 | 60 | 69.7 | 29 |
| Philippines (ASEAN) | <0.1 | 7.1 | 98 | 15 | 66 | 69.8 | 14 |
| Senegal (WAEMU) | 0.8 | 22.9 | 100 | 11 925 | 66 | 52.7 | 21 |
| South Africa (SACU) | 21.5 | 2.7 | 98 | 143 | 80 | 48.8 | 14 |
| Swaziland (SACU) | 38.8 | 9.6 | 100**** | 2 835 | 100 | 35.7 | 15 |
| Tanzania | 8.8 | 0.5 | 100***** | 1 207* | 66 | 43.5 | 36 |

| | | | | | | | |
|---------------------|------|------|-----|---------------|----|------|----|
| Thailand (ASEAN) | 1.5 | 12.2 | 100 | 130 | 95 | 69.1 | 18 |
| Togo (WAEMU) | 4.1 | 0.4 | 81 | 7 701 (98) | 70 | 49.9 | 21 |
| Uganda (EACU) | 4.1 | 12.9 | 100 | 46 | 70 | 45.7 | 31 |
| Venezuela (AC) | 0.7 | nd | 88 | 94 | 90 | 73.6 | 25 |
| Vietnam (ASEAN) | 0.4 | 35.0 | 100 | 95 | 85 | 69 | 17 |
| Zimbabwe | 24.6 | 1.0 | 100 | 5 410 | 70 | 33.9 | 23 |

nd=No Data

*=1999

**=2000

***Four of 15 operational units are not reporting to the National Tuberculosis Control Program on a regular basis

****Country offers additional information on "access" to DOTS services, which it measures in terms of distance from health facility: 70% population live within 5 km and 90% within 10 km from a health unit.

Source: UNDP World Development Report 2004, 2002

Table 3 Regression analysis: Access to essential medicines against GNI per capita, import tariffs and VAT

| Variable | Coefficient (t statistic) | Explanation |
|-----------------|----------------------------------|---|
| GNI per capita | 0.003569 (4.555481)* | Per capita Gross National Income (US\$) 1999 |
| Import Tariff | -0.98145 (2.42207)** | Average import tariffs for Chapter 29 and 30 goods |
| VAT | 0.750958 (1.495114) | Value added taxes on medicines and medical products |
| Intercept | 50.71718 (5.568058)* | What value access to medicine is predicated to be when the independent variables are zero |

* significant at the 1 percent level

** significant at the 5 percent level

F statistic 0.0000284

Table 4 Regression analysis: Access to essential medicines against GNI per capita and combined tariffs and VAT financial barrier

| Variable | Coefficient (t statistic) | Explanation |
|---------------------------------------|----------------------------------|--|
| GNI per capita | 0.003037 (3.7552)* | Per capita Gross National Income (US\$) 1999 |
| Combined measure of Tariffs and Taxes | -0.33538 (-1.0081) | Combined average import tariffs for Chapter 29 and 30 goods and value added taxes on medicines and medical |
| Intercept | 63.87 (7.65)* | What value access to medicine is predicated to be when the independent variables are zero |

* significant at the 1 percent level

F statistic 0.000163

Table 5 Essential Foodstuffs denied due to South Africa’s VAT payment on antiretroviral triple therapy¹⁹

| Item | Unit Cost | Quantity | Total (South African Rand) |
|------------------|------------|----------|----------------------------|
| Brown bread | 3.59/loaf | 2 | R 7.18 |
| Eggs | 1.05/egg | 6 | R 6.3 |
| Low fat milk | 5.69/litre | 1 | R 5.69 |
| Maize meal | 2.59/kg | 1 | R 2.59 |
| Bananas | 4.99/kg | 1 | R 4.99 |
| Beetroot | 5.32/kg | 0.5 | R 2.66 |
| Tomatoes | 9.99/kg | 0.5 | R 4.99 |
| Broccoli | 5.99/kg | 0.5 | R 2.99 |
| Lean minced beef | 27.95/kg | 0.5 | R 13.98 |
| Whole chicken | 18.99/kg | 1.1 | R 20.89 |
| TOTAL | | | R 72.26 |

¹⁹ Source: Dischem pharmacy and Pick ‘n Pay Supermarket

ANNEX

Tariff peaks in selected countries

| Country | Chapter 29 | | Chapter 30 | |
|---------------------|---|--------|--|--------|
| | HS code | Tariff | HS Code | Tariff |
| Algeria | 292249 292429 292520 293090 293299 293329 293339 293359 293410 293500 294110 294120 294130 294140 294150 294190 | 15% | 300310 → 300650 | 5% |
| ANDEAN Community | 292219 → 294190 | 10% | 300590 300610 300650 | 15% |
| Bangladesh | 293299 | 15% | 300510 | 22.5% |
| Brazil | 292429 293329 293339 293359 293390 293410 293490 293500 294110 294140 294150 | 16.5% | 300310 300320 300390 300410 300490 300650 | 16.5% |
| Congo, Dem Rep | 292219 → 294190 | 5% | 300490 | 18.33% |
| India | 292219 → 294190 | 40% | 300410 300420 300510 300590 300610 300650 | 42% |
| Mexico | 293090 294110 | 18% | 300610 300650 | 20% |
| Morocco | 292219 → 294190 | 10% | 300590 | 46% |
| Thailand | 292520 → 293299 293359 → 293410 293500 → 294190 | 10% | 300510 300590 | 20% |
| Zimbabwe | 292249 | 15% | 300510 300590 | 20% |