# WTO Accession of Afghanistan: Costs, Benefits and Post Accession Challenges


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**ABSTRACT**

The paper undertakes cost-benefit analysis of Afghanistan's accession to WTO while attempting to shed light on the post accession challenges. For the empirical part of our analysis we have applied WITS/SMART model to assess the implication of WTO membership. Tariff cut is the independent variable and government revenue, trade creation, consumer welfare and general welfare of the economy. The results show that, Afghanistan consumers stand to benefits from tariff reforms with overall positive welfare gains to the economy. However a reduction in tariff will lead to fall in government revenue and substantial increase in imports which may raise some concerns over negative trade balance. The last section of the paper studies the post accession challenges of WTO accession with special focus to development, institutional, legal and environmental challenges. But our analysis based on the sectoral mix of Afghanistan's economy suggests that producers will lose out. Finding of this study supports the argument to maintain maximum policy space for Afghanistan for its long term development needs purposes.

**Keywords:** Liberalization, WTO Accession, Afghanistan Economy, Policy Space, Accession Challenges

## 1. **Introduction**

Having completed the bulk of the accession formalities[1], Afghanistan is scheduled to become the 35th Least Developed Country (LDC)[2] member of WTO. Afghanistan is a land locked country but strategically located at the heart of Silk Road[3] which even today can serve as "trade and transit hub" of Central Asia and South Asia[4]. It is believed that sustainable economic growth through attracting significant trade and investment cannot be achieved without broader integration into the world economy. Afghanistan National Development Strategy (ANDS) explicitly recognizes the role of trade for economic development and highlights Afghanistan's integration into the world economy as one of the key development goals for which membership to WTO is an essential step (ANDS, 2008). Economic Growth and Poverty Reduction is the core objectives of ANDS[5] which place greater emphasis on a free market and private sector-led economy.

With the belief that WTO will foster economic growth through increased exports and attraction of Foreign Direct Investment (FDI), Afghanistan applied for WTO membership. Almost all trading partners of Afghanistan at SAARC, Central Asia and West Asia are WTO are either WTO members or are in the process of accession, therefore WTO membership gives Afghanistan broader chance for fair trade through dispute settlement mechanism at WTO (MoCI, 2012). However, WTO accession requires extensive reforms to adjust to its rules and regulations to be compatible with multilateral trade regime under the WTO. These compliance requirements itself poses a real challenge to a Least Developed Country like Afghanistan. Keeping in view the development objectives of Afghan government, this paper undertakes a cost benefit analysis of Afghanistan's accession to WTO and assesses the challenges for post accession. The objective is to identify key sectors of the economy where policy space needs to be preserved to address future development challenges. Furthermore, the study provides an ex-ante and ex-post assessment of Afghanistan's accession to WTO. Cost and benefit analysis in this study is a pre accession stimulation, while in a separate section we study the post accession challenges.

The study is structured as follows: The second section of the paper presents an overview of trade and economic profile of Afghanistan. The third section briefly presents the WTO accession process of Afghanistan while the fourth section is devoted to empirical part of the study by undertaking

1 The fourth meeting of the Working Party was held on 25 July 2013 in which Afghanistan was urged to resolve outstanding technical issues, enact the few outstanding draft laws and conclude remaining bilateral negotiations to ensure that it remains on track to complete its accession process at the Ninth Ministerial Conference (MC9) in Bali.

2 There are 44 countries recognized as LDC by the UN, of which 34 countries are member of WTO. Eight LDCs including Afghanistan, Bhutan, Comoros, Equatorial Guinea, Ethiopia, Liberia, Sao Tome & Principe and Sudan are currently negotiating for WTO membership. Yemen is the recent LDC member of WTO.

3 The Silk Road was a network of trade routes that linked cities, trading posts, hostels and caravan-watering places. It was most active from about 300 BC to 200 AD and extended between the Eastern Roman frontier in the Middle East to the Chinese frontier, with other paths going north through Afghanistan from the Indian Ocean to the Siberian Steppe.

4 Afghanistan representative presentation to WTO, 2012

5 For details the reader can refer to ANDS Preamble

simulation of cost and benefits of WTO accession in terms of consumer and welfare gain and implication on government revenue. This will allow us to identify sensitive sectors of the economy. In section five, the post accession challenges are briefly discussed. Final section concludes with major findings of the paper.

# 2 Economic and Trade Profile of Afghanistan

## 2.1. Afghanistan Economy: A general Overview

Afghanistan is a land locked, war-torn and aid dependent economy. The total area of the country is 652864 square kilometres and population is approximately 30 million out of which 78% are living in the rural areas (AISA, 2013) and it is primarily an agrarian economy (75% of population; World Bank). The per capita GDP of the country amounted to 687$, GDP in 2012 with a staggering economic growth of 14.4%, real GDP growth for the same period was 9.2% and the inflation rate was 6.4% (CSO, 2013). In 2012 agriculture produce of the country contributed 24.6% to the GDP. Industry is at a very primary stage and more or less run at small scale. The industrial produce of the country includes textiles, soap, furniture, shoes, fertilizers, leather, non alcoholic drinks, cement, carpet and natural gas. The industrial products of the country are mainly meant for the domestic consumption and do not have much contribution to the foreign exchange earning of the country. According UN classification of countries, Afghanistan is one of the poorest countries in the world and it is classified both as a Least Developed Country (LDC)[6] and a Land-locked Developing Country (LLDC). Measures like Human Development Index (HDI) places Afghanistan at a very low level of human development when measured by health, education and living standards. These measures reflect the results of decades of conflict which has destroyed much of the agricultural and industrial capacity of the country.

**Table 2-1 Structure of Afghanistan Economy for the year 2012**

| Indicator | Value/Percentage |
|---|---|
| Population | 29.82 Million |
| GDP | 20.5 billion |
| GDP Per Capita | 687 USD |
| GDP growth | 14.40% |
| Inflation | 7.20% |
| Imports of goods and services as percentage of GDP | 39.20% |
| Exports as percentage of GDP | 5.50% |
| Current Account Gap | 7.5 billion USD |
| Services as percentage of GDP | 53.5 |
| Trade in Services | 25.90% |
| Agriculture Value added as percentage of GDP | 24.60% |
| Industry as a percentage of GDP (2011) | 22.50% |
| Source: World Bank (2013 | |

Even after several years of economic growth since international forces intervened and toppled the government in 2001, estimates place 42 percent of the population below the national poverty line. The

6 The least developed countries (LDCs) are a group of countries that have been classified by the UN as "least developed" in terms of their low gross national income (GNI), their weak human assets and their high degree of economic vulnerability (Source: UN).

following World Bank sectoral analysis of the Afghan economy would further facilitate to understand the dynamics of economy and its position in international trade.

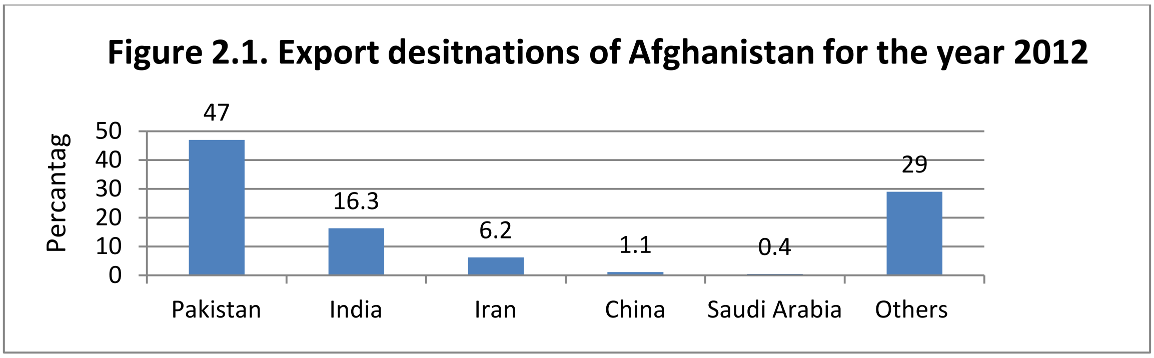
### 2.2. Exports and Imports

As of 2011 the export-import ratio of the country was 20% (as per World Bank data calculation). The larger portion of exports of the country is consist of dried fruits, saffron, fresh fruits, rags, leather and precious stone to the target markets such as Pakistan, India, United Arab Emirates, Kazakhstan, Uzbekistan and some other countries. Import portfolio of the country includes almost everything from food to industrial products, automobiles, heavy machines and energy. Since its establishment in 2002, the government of Afghanistan has understood the importance of trade with its neighbours and has tried to integrate with them through membership in regional organizations such as South Asian Association for Regional Cooperation (SAARC) to which Afghanistan became a member in the year 2007, and Shanghai Cooperation Organisation (SCO) in which Afghanistan is an observer from 2012.

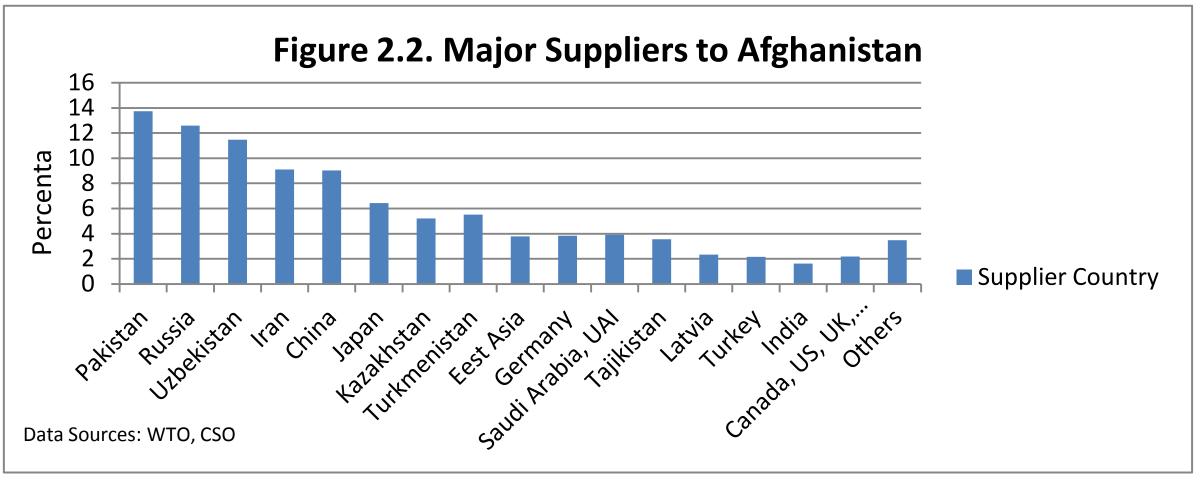
While the major trade partners are those which are members to regional organizations like SAARC and Shanghai with whom Afghanistan is already a trade partner, and has agreed on minimum tariffs. Yet, it has not been able to capture a significant share in these markets for its exports. SAARC member states have signed South Asian Free Trade Area (SAFTA) according to which the Non-Least Developed Contracting States (NLDCS) such as India, Pakistan and Sri Lanka and the other five Least Developed Contracting States (LDCs) including Afghanistan would bring down their tariffs to 20% and 30% respectively[7]. In addition to this Afghanistan has signed Preferential Trade Agreement (PTA) with India, according which it has agreed to reduce its tariffs for some necessary goods such as tea, medicines, sugar, cement imported from India.

Total value of exports of the country amounted to 370 million dollars in 2012 with a meagre share 0.03% of world exports. 86% of total exports earnings were from agricultural products while 14% was from manufactured commodities. Pakistan, India, Iran, Saudi Arabia, Russia and European Union are the major export destinations of the country (Figure 2.1). Afghanistan is a net importer sourcing almost everything from abroad, from heavy machinery, automobiles, and technology to textiles and food. The major supplying countries are Pakistan, China, Japan, Iran, India, European Union and some other countries (Figure 2.2)

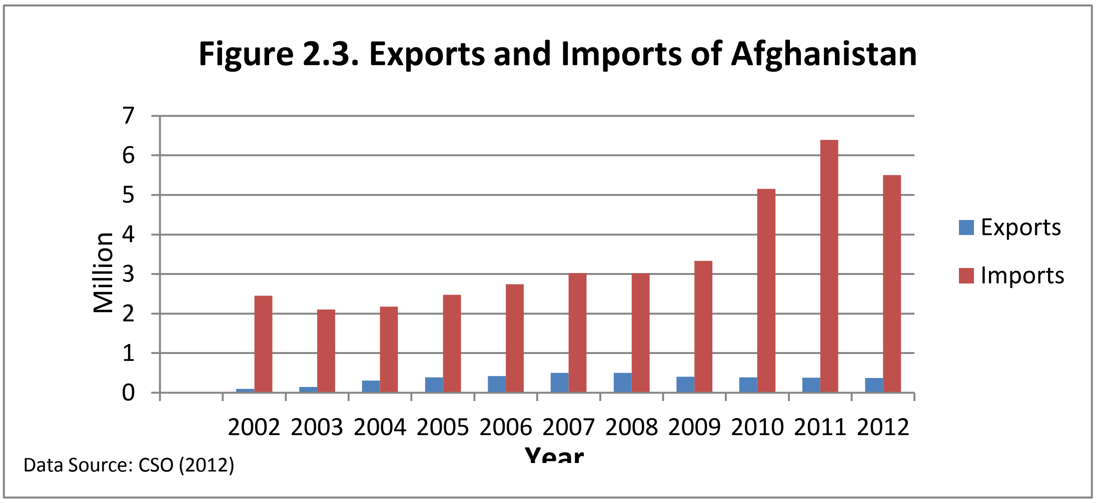
[7] Article 7 of the SAFTA Agreement




SAARC countries alone make up 60% of the export markets for Afghanistan (ADB, 2012) and Afghanistan imports 30% of its requirements from SAARC countries. The Afghanistan-SAARC trade intensity index has declined, but the trade growth has had fluctuations.

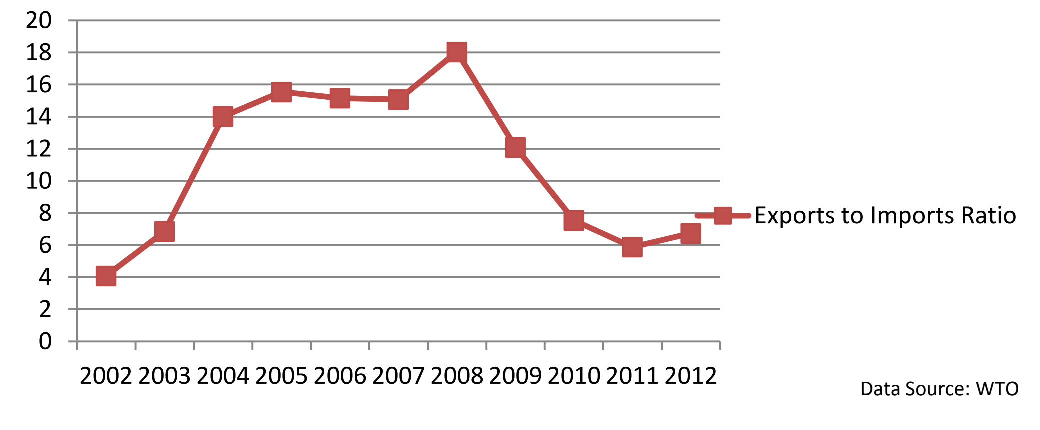



The export-import gap in Afghanistan is always very huge. The data for exports and imports is available for the years 2007 to 2012. The figure 2.3 depicts this gap.



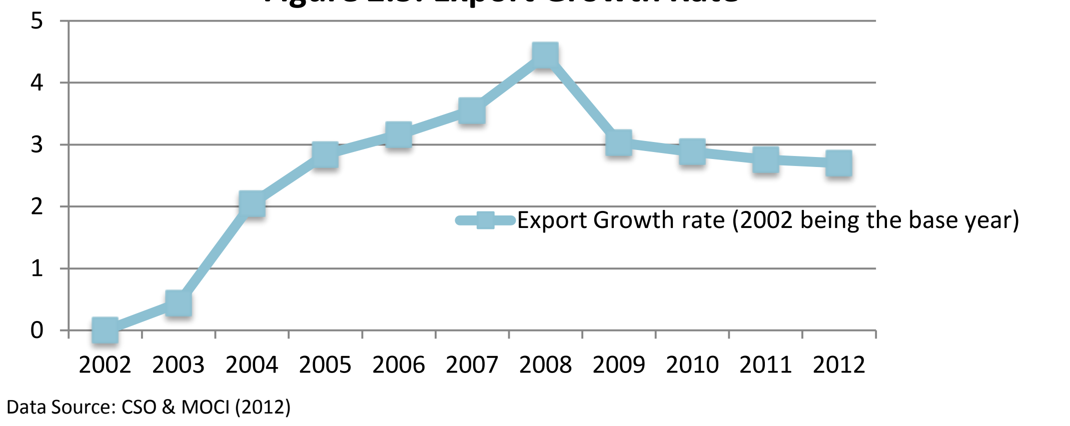

Export-Import Ratio has always been very below 20 percent, for instance in the year 2002 when the country was just recovering from conflict and the foreign aid started flowing to the country the ratio was approximately 4 percent and it keep on normal increase till 2008 when the ratio was 18 percent, later on it started declining to 6.8 percent in 2012. The figure 2.4 depicts the export to import ratio trends for the last 10 years.

**Figure 2.4. Exports to Imports Ratio**



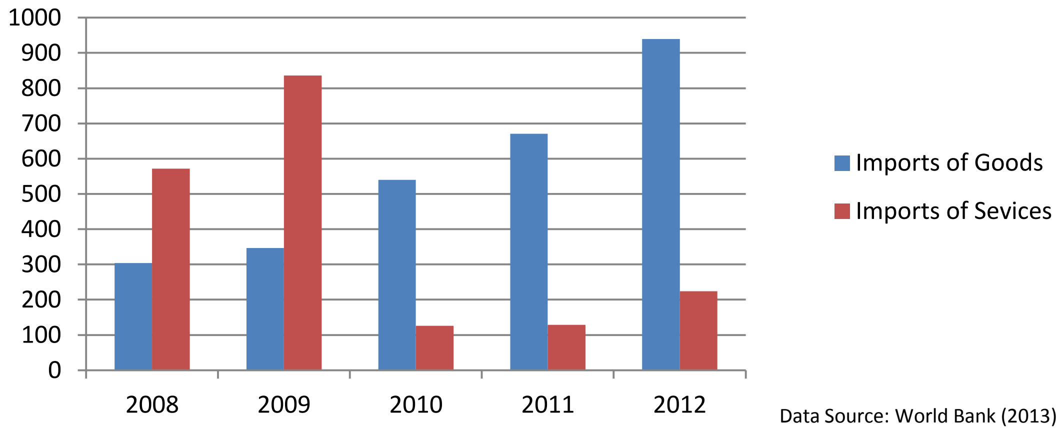

Export growth rate of the country has not been so fascinating as well. If we take 2002 as the base year for the country's export performance, again the data shows that this growth has been smooth till 2008 (4% growth in comparison to 2002) and then goes through a steady decline to 2 percent in 2012. The average growth rate of exports for this period is approximately 2.78 percent per year. The following figure shows the export growth trend of the country. One of the fundamental reasons for exports lagging behind imports is the fact the country heavily relies on the foreign aid and aid-funded projects constitutes the major portion of imports such as machinery and oil. The fiscal gap in 2007-08 was 70%, which reduced to 34% in 2012 and has been financed by aid throughout.

**Figure 2.5. Export Growth Rate**




Imports of goods and services in Afghanistan changes depending on the circumstances, for instance till 2008, due to lack of capacity the country had to avail of foreign consultancy services in all walks of public management, and therefore the share of services is more than that of goods. While later on services imports decline and goods imports increases (Figure 3.6). However, the investment in services is one of the potential sectors to grow far better and attract FDI more than production sector in case Afghanistan accesses to WTO and reduces its charges for the foreign businesses in services.

Figure 2.6. Imports of Goods and Sevices (value in 100 million USD)




Data Source: World Bank (2013)

## 2.3. Tariff Profile of Afghanistan

Since the inception of the post-Taliban regime in Afghanistan, in order to maintain the prices at affordable level to the consumers, without regards to the current account deficit, the government of Afghanistan has maintained the tariff level to the minimum possible. The tariff structure maintained by Afghanistan National Tariff Schedule (ANTS) is based on a Harmonized Commodity Description and Coding System (HS 2012), and the tariff rates consists of 14 tariff bands which ranges from 0 to 50% (Table 2.2).

**Table 2.2. Tariff Structure of Afghanistan for the year 2012**

| Serial No | Tariff Band | No of Tariff Lines | Share in Total |
|---|---|---|---|
| **1** | 0.00% | 27 | 0.502699683 |
| **2** | 1.00% | 83 | 1.545336064 |
| **3** | 2.50% | 1510 | 28.11394526 |
| **4** | 3.50% | 10 | 0.186185068 |
| **5** | 5% | 2255 | 41.98473282 |
| **6** | 8.00% | 28 | 0.52131819 |
| **7** | 10.00% | 1123 | 20.90858313 |
| **8** | 12.00% | 4 | 0.074474027 |
| **9** | 16.00% | 207 | 3.854030907 |
| **10** | 20.00% | 21 | 0.390988643 |
| **11** | 25.00% | 38 | 0.707503258 |
| **12** | 35.00% | 4 | 0.074474027 |
| **13** | 40.00% | 9 | 0.167566561 |
| **14** | 50.00% | 4 | 0.074474027 |
| **15** | Prohibited | 48 | 0.893688326 |
| | Total | 5471 | 100 |

**Source: WTO Working Party Report, 2012**

Prohibited goods include those goods which are illegal as per the constitution of the country, like Alcoholic drinks, pork, illegal drugs, etc. Vehicles and salt are the commodities with highest tariff band (35%-50%), followed by furniture, fruits, nuts, processed marbles and carpets (25%). Apart from tariff regulations tax rate ranging from 2% to 3% is also levied on all imports.

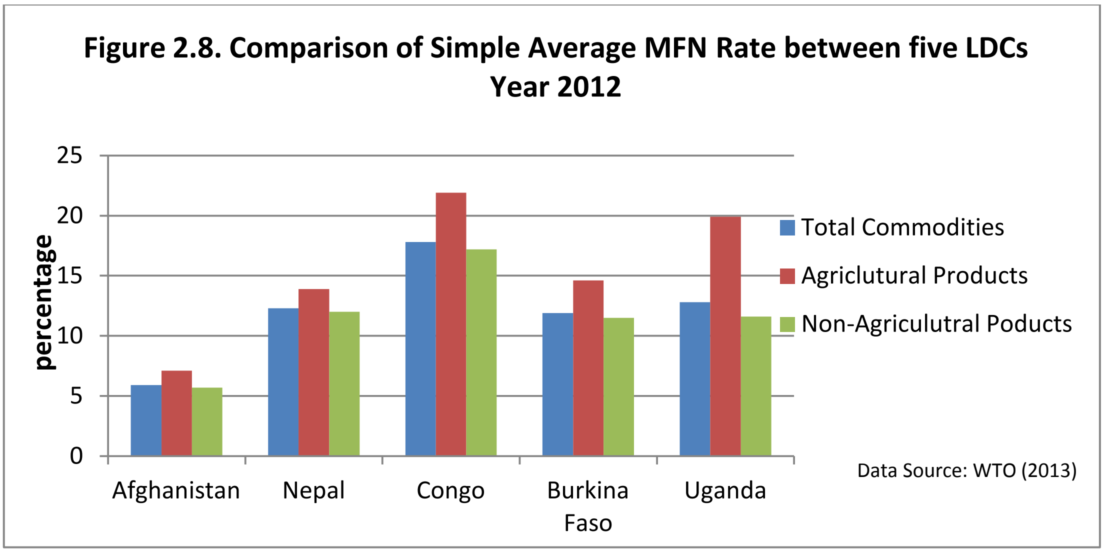
Currently the tariff structure provided for in the legal documents includes the following provisions:

- Ad valorem tariffs (presently applied);
- Specific duties, calculated charged as fixed amount per quantity;
- A combination of ad valorem tariffs and specific tariff rates;
- Preferential tariff rates (only for some goods imported from India in line with Indo-Afghan Preferential Trade Agreement (PTA))

Customs valuation is done on the basis of Article VII of GATT. Valuation is based on the transaction value of the goods subject to adjustments due to the inclusion of the cost insurance and freight charges. There are no VAT and excise duty tax applicable at the customs stations. Afghanistan's tariff is one of the lowest among LDCs for most of the commodities (World Bank, 2010; for details of MFN applied tariff rates in the year 2012 refer to Appendix I). The tariff structure is slightly progressive and richer groups tend to pay higher duties for their imports, according to household consumption data for a basket of basic goods from the 2008 National Risk Vulnerability Assessment (NRVA, 2007/08). Notably, richer households in Afghanistan consume a larger share of services, thus, when including services within the basket of goods, the impact turns from progressive to regressive. In 2010 the average tariff rate in Afghanistan was lower than the average tariff rates of 13.5% for similar LDCs in South Asia, and the maximum was 25% (World Bank, 2012). The tables in appendix I illustrate the existing tariff (weighted tariff) structures of Afghanistan as per WTO calculations.

### 2.4. Afghanistan's Tariff in comparison to other LDCs

Though Afghanistan is not yet member of WTO, the applied tariffs of the country is still lower than many of the LDCs. This is evident from Figure 2.8 which compares the simple average MFN rates of a few selected LDCs. The figure shows that among the five LDC members of WTO, Afghanistan has the least Tariffs both for agricultural products and non agricultural products. In the year 2012 the MFN rate applied was below 5% which covered 73.8% of the non agricultural imports and 60.2% of the agriculture imports, while 15.6% of agriculture imports and 2.7% percent of the non-agriculture imports were tariffed between 15 percent and 25 percent (for details refer to Appendix I). Maximum tariff for the same year was applied for transport equipments at the rate of 50%.




In the following section we briefly discuss Afghanistan's accession process to WTO.

# 3 Afghanistan's Accession Process to WTO

Afghanistan applied for WTO accession in 2004 for the following objectives[8]:

a) Secure stable and non-discriminatory access for Afghan exports
b) Control over unfair treatment of Afghanistan's goods and services in foreign markets
c) Secure non-discriminatory transit for Afghanistan's exports
d) Modernization of the economy
e) Enhance economic growth and development
f) Increase fiscal revenue
g) Good governance, enhancement of the rule of law and transparency in the system

Working Party was established in 2004 but the accession process was very slow and sluggish. However, as it can be observed from Table 2.3, Afghanistan has made significant progress beginning from 2009 completing bulk of accession negotiation both in multilateral and bilateral tracks. To initiate discussions within the framework of the working party, on March 31, 2009 Afghanistan submitted the '*Memorandum on the Foreign Trade Regime' (MFTR)* delineating its current policies and laws related to trade in goods, services, intellectual property, and government procurement (WTO, 2009). Accession negotiation accelerated since the first working party meeting which was held in 2010. Afghanistan actively engaged in the negotiation while clarifying a range of questions received from Canada, EU, and US and regarding their trade and investment framework September 2012.

[8] These objectives has been highlighted in Afghanistan's first application and reiterated in various presentations made by Afghan delegates

| Table 2.3. WTO Accession Process of Afghanistan | | |
|---|---|---|
| **1.** | **Application Received** | 21 November 2004 |
| **2.** | **Working Party Established** | 13 December 2004 |
| **3.** | **Memorandum of Foreign Trade Regime (MFTR)submitted** | 31 March 2009 |
| **4.** | **Replies to the questions raised** | 26 July 2010 |
| **5.** | **Meetings of the Working Party** | 31 January 2011<br>18 June 2012<br>7 December 2012<br>25 July 2013 |
| **6.** | **Other Documentation** | |
| | (a) Additional Questions & Replies | 19 November 2012<br>31 October 2012<br>10 April 2013<br>7 June 2013<br>27 June 2013<br>2 July 2013 |
| | (b) Information on agriculture (WT/ACC/4) | 29 October 2012 |
| | (c) Information on services (WT/ACC/5) | |
| | (d) SPS/TBT checklists (WT/ACC/8) | 6 February 2012 (SPS)<br>26 April 2012 (TBT)<br>7 June 2012 (SPS) |
| | (e) TRIPS checklist (WT/ACC/9) | 28 October 2011<br>19 November 2012 |
| | (f) Legislative Action Plan | 28 October 2011<br>6 June 2012<br>5 December 2012<br>15 July 2013 |
| **7.** | **Market Access Negotiations** | |
| | Goods Offer<br>(a) initial<br>(b) latest | 14 November 2012 |
| | Services Offer<br>(a) initial<br>(b) latest | 13 June 2012 |
| **8.** | **Factual Summary** | 3 May 2012 |
| **9.** | **Elements of a Draft Working Party Report** | 9 November 2012<br>14 November 2012 |
| | **Draft Working Party Report** | 24 June 2013 |
| **Source: WTO Website (http://www.wto.org/english/thewto_e/acc_e/a1_afghanistan_e.htm)** | | |

Afghanistan launched service negotiations in June 2011, and submitted the goods offer during the first week of October 2012 in order to start bilateral negotiations on goods at the end of 2012 (WTO, 2013). At the fourth meeting of the Working Party on 25 July 2013, WTO members commended Afghanistan for its strong commitment matched by its technical inputs to advance its WTO accession negotiations to closure (WTO, Dec 2013). At the agriculture plurilateral negotiations, chaired by the WTO Secretariat on 25 July, members welcomed Afghanistan's commitment to bind export subsidies at zero and also welcomed the fact that its domestic support was concentrated in the "Green Box" (i.e. domestic support for agriculture that is allowed without limits because it does not distort trade, or at most causes minimal distortion) (WTO, 2013). Afghanistan's accession is expected to be approved in the year 2014 (MoCI, 2014).

# 4 Cost-Benefit Analysis

## 4.1. Literature review

Globalization is a fact of our time and integration to the global economy is considered one of the success stories for economic development. In the meantime WTO is considered to be the only universal governing institutions which facilitate the development of trade-related institutions, regulatory frameworks and building capacity of the private sector in the domestic economies to benefit from the fruits of liberalization. WTO promotes that all are consumers, the price paid for food; clothing and other necessities of life are affected by trade policies. Protectionism is expensive and raises prices, and according to WTO "The WTO's global system lowers trade barriers through negotiation and applies the principle of non-discrimination. The result is reduced costs of production (because imported inputs used in production are cheaper) and reduced prices of finished goods and services, and ultimately a lower cost of living"[9]. Furthermore, WTO stipulates that WTO-based trading system promotes rule based trading through dispute settlement mechanism under WTO, enhances efficiency, improves good governance, reduces cost of living and speeds up economic growth. However, there is a large body of literature evaluating costs and benefits and of WTO membership. The table in Appendix IV summarizes the various studies on cost and benefits of WTO accession and membership in free trade agreements. What is common among all the studies on cost and benefits of WTO accession is that liberalization of vulnerable economies poses terrible challenges and must therefore not be compromised for short term efficiency gain. Some authors have looked at net benefits from WTO accession rather than segregating the implication in terms of cost and benefits of different sectors. Some studies are country specific showing that a significant policy space is lost with undertaking of WTO commitment despite a range of benefits that countries stand to gain from integrating into the world economy.

According to one study net benefits from accession seems strictly positive (Kym Anderson, 1998). This strong assertion on the net benefit of WTO accession implies that whatever the cost might be, the positive effect thereof can generate sufficient welfare for the economy. This notion of cost-benefit disregards the sectoral mix of the economy, and believes that as long as the loss of one sector is more than compensated by gain in the other sectors, the economy is at a better position and there is a Pareto improvement. Institutional reform after

WTO accession is another very important factor for the economic growth of a country (UNCTAD, 2009). Institutional and legal framework adjustment to WTO prescription is an impetus to economic efficiency, growth and enhanced welfare.

Studies on Least Developed Countries (LDCs) are not as optimistic on the positive impact of WTO accession as the above findings. The benefits from WTO membership in terms of improved market access for traditional exports are likely to be limited for vulnerable economies and developing countries. However, by submitting a wide range of trade-related policies to international scrutiny and by entering into binding commitments on the conduct of these policies, reform-oriented governments in these economies can make it more likely that their reforms will be successful (Rolf J. Langhammer & Matthias Lücke, July 2001).

WTO promotes trade liberalisation and free trade. Trade liberalization has been beneficial for many countries, but the gains from liberalizing reaming of protection may be outweighed by the costs.Tariff revenue losses even outweighed by gain in other areas are very significant. Total tariff losses for developing countries under the NAMA[10] could be $63.4 billion or almost four times the benefit . Countries in Sub Saharan Africa and Middle East, and Bangladesh with large informal economies and where tariff revenues are important for government revenues are predicted to be net losers in terms of benefits. They will also suffer even larger losses in tariff revenues (Kumar and Kallegher, 2006).

### 4.2. Cost and Benefit Afghanistan's accession to WTO

This section attempts to through some light on the cost and benefits of WTO accession for Afghanistan. The result of the study will guide policy makers to identify the most sensitive sectors of the economy in which sector policy space is required to address future development goals. Afghanistan as an LDC and Land Locked Country (LLC) can benefit from integration to the global economy through WTO membership significantly. The country is one of the important producers of dry fruits[11] and carpet[12] in the world and WTO membership provides greater opportunities to exploit the vast potential in the international markets and emerge as a major player in these two commodities. Similarly, cheap raw material and labor, untapped resources like iron, copper, coal and host of other mineral resources can change development trajectory of the country attracting much needed investment (FDI), which is encouraged and facilitated by WTO regulations. Furthermore, Afghanistan

[10] Non Agriculture Market Access (NAMA) refers to all products not covered by the Agreement on Agriculture. In other words, in practice, it includes manufacturing products, fuels and mining products, fish and fish products, and forestry products. They are sometimes referred to as industrial products or manufactured goods (http://www.wto.org/english/tratop_e/markacc_e/nama_negotiations_e.htm)

[11] Before 1980 over 60% of global dried fruits was supplied from Afghanistan. For more information refer to USDA report *'Afghanistan's Dried Fruit Market Regains Strength'*

[12] In 1975 up to 35 per cent of employed population in selected provinces were engaged in carpet weaving (KAS-Kabul, 2005), and currently over one million Afghan population are engaged in carpet industry (Mc Cord Group, 2007).

is an important tourist destination and WTO regulations on services[13] can help the country to enhance this business at the regional and international level.

While the benefits of trade liberalization are of paramount importance, the cost is nonetheless critical for any country especially for vulnerable economies. Import liberalization through tariff cuts for a small country like Afghanistan may bring down the prices by the amount of tariffs cuts, increase imports and decrease the government revenue from tariffs. The general welfare of the economy which is the combination of consumer surplus, producer's surplus and government surplus (government revenue) depending on the effect of tariff cuts for different country may be either negative or positive. According to the theory the consumer surplus is positive due to cheaper prices of commodities. The producer surplus can take either positive or negative sign. If the producer is competitive and benefits from cheap imported raw material that would enable her to increase sales at a lower price both at the domestic and international markets, then it may gain from liberalization; but if the firm uses domestic raw material and produces for the domestic market, liberalization may be detrimental to it. Therefore, an industry in the country may lose or gain from the trade, depending on their competitive position. In case of Afghanistan, since the industries are at their primitive stage, import liberalization may affect them negatively. Government revenue on the other hand may increase due to increased imports or can fall due to reduced tariffs.

Though Afghanistan's current applied tariff rates are very low[14] and the country as an LDC may not be required to undertake further commitment to reduce its current MFN applied tariff rates, still it has to bind its tariffs at certain rates. Now which products to bind at a higher rate and which ones to a lower rate so that the average will comply with the WTO stipulations? In order to maintain the maximum policy freedom Afghanistan has to have a clear idea of the cost and benefits corresponding to each commodity or group of products. The country needs to maintain certain policy freedom suitable to its long term development goals.

## 4.3. Methodology

An ex-ante analysis of the cost and benefits of a policy change is cumbersome task, and one such model which can capture all variables and establishes relationship between all factors concerned is General Equilibrium Analysis; but this undertaking on one hand requires lots of data for every variable and on the other hand there is no customised tool to calculate this model. Exhaustive quantitative measurement of the expected benefits and costs is beyond the scope of this study. However, in a similar study the Asian Development Bank[15] has used Partial Equilibrium Model to

[13] Refer to WTO General Agreement on Trade and Services
[14] Working Party on the Accession of the Islamic Republic of Afghanistan, 29 October 2013
[15] Quantification of Befits from Economic Cooperation in South Asia, 2008

assess the welfare and revenue implication of SAFTA, and Lawrence Otheino and Isaac Shaniyekwa (2011) have used the same model to assess the effect of tariff reduction[16] on trade, welfare and revenue of Uganda[17]. Following the same methods used in similar studies[18] we undertake a partial equilibrium analysis of tariff cuts.

The independent variable in this study is tariff cuts and dependent variables are trade creation, government revenue, consumer surplus and welfare. There are various tools to run Partial Equilibrium analysis among which we use the World Bank/UNCTAD SMART Stimulation Model that is a suitable tool to assess the costs and benefits of accession to WTO.

### 4.4. **WITS/SMART Model[19]**

This model was developed by Jammes and Olarreaga (2005) and operationalized by the World Bank. The model is based on Armington assumption which assumes that imports from different countries are perfect substitutes perfect and export supply elasticity is taken to (99%) which implies upward-sloping export supply curves (UNCTAD, Partial Equilibrium Trade-Policy Simulation). The model assumes that all countries face fixed world prices and the domestic price is the direct function of tariff changes (refer to figure 4.2). Trade creation (trade effect) is calculated as direct increase in imports due to the tariff reduction. The elasticity of imports demand for a particular good (k) is assumed to be the same for all source countries (suppliers). The following equation establishes this relationship:

$$^{20}TC_k = \sum_{i=1}^{n} TC_k^i = \sum_{i=1}^{n} \varepsilon_k M_k^i P_k^i \frac{\Delta t_k^i}{1 + t_k^i}$$

Where, $TC_k$ stands for total trade creation for good (k) and that is the sum of total trade created from countries (I = 1, 2, 3….. n); $\Delta t_k^i$ stands for change in tariffs for product (k) imported from country (i). As we observe in this equation the total trade creation is a function of elasticity of import demand ($\varepsilon_k$), import commodity (k) from each country ($M_k^i$), landed price ($P_k^i$) and tariff changes ($\Delta t_k^i$). The last factor in the RHS of the equation ($\frac{\Delta t_k^i}{1+t_k^i}$) represents the trade diversion effects, which represents the amount of trade of diverted away from other suppliers to a particular supplier as a result of preferential tariff reduction for that countries' exports. In other words the diversion effect in trade

[16] Tariff reduction was imposed on what the author calls category B goods such as agricultural products, processed food, textile, plastic products, iron and steel products, detergent, building materials and tobacco

[17] 'Trade Revenue and Welfare Effects of East African Community Customs Union Principle of Asymmetry on Uganda, 2011

[18] A list of similar studies using partial equilibrium model and WITS/SMART method is provided in Appendix III

[19] We have taken the major part of the discussion in this sub section from WITS/SMART manual, which can be accessed from World Bank official website (https://wits.worldbank.org/)

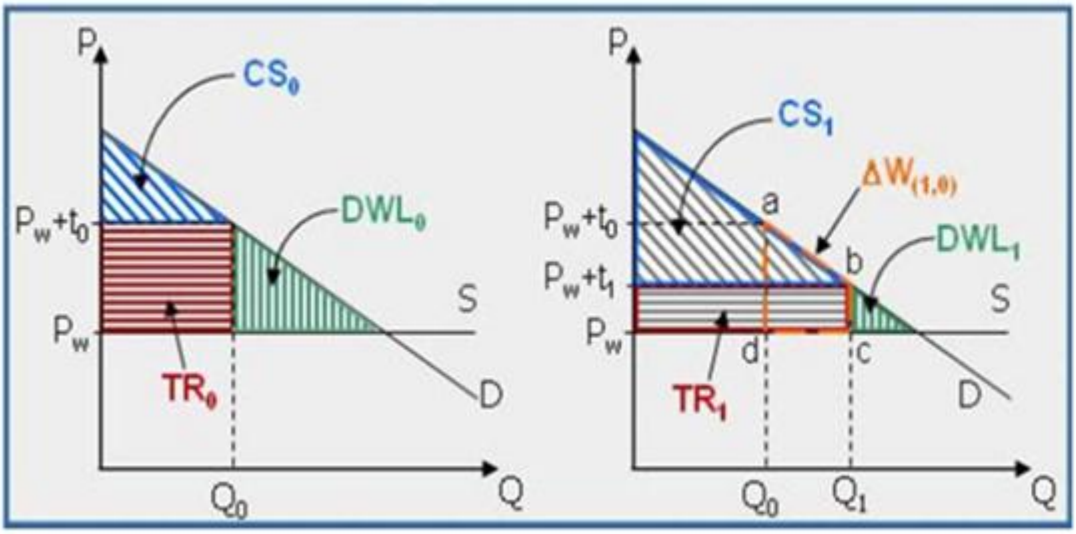
[20] Source: WITS/SMART User Manual (https://wits.worldbank.org/)

flows is the increase in imports from a preferred source that substitutes imports from MFN sources (UNCTAD). In SMART trade diversion is calculated from the following equation:

$$TD = \{\left(\frac{M_k^i M_k^l}{M_k^i + M_k^l}\right)\sigma \frac{dt_k^i}{t_k^i} \quad if - dM_k^l \leq M_k^l \quad or\ M_k^l\ otherwise\}$$

Where, TD is the trade diversion effect $M_k^l$ is the initial level of MFN imports. Trade diversion effect is an increasing function of elasticity of substitution ($\sigma$); the amount of trade diversion effect cannot be larger than the initial value of imports from all countries. The above and many more complicated equations for calculating the trade creation effect, revenue effect, consumer surplus and welfare effect of tariff reduction have been programmed in World Integrated Trade Solution (WITS) which enables to feed our data and run our analysis. It is important to note that WITS/SMART Model does not calculate producers' surplus precisely as explained in the Partial Equilibrium Model, it rather considers the reduction/increase in the Deadweight Loss as improvement/reduction of welfare. Figure 4.1 depicts this fact.

**Figure 4.1. Impact of reducing tariff**




Source: WITS/SMART User Manual, Smart Framework, page 171

When tariff is reduced from $t_0$ to $t_1$ the prices fall by the amount of tariff, amount of imports increases from $Q_0$ to $Q_1$ (trade creation effect), and government revenues reduces and consumer surplus increases; but the efficiency loss (Deadweight Loss) falls from $DWL_0$ to $DWL_0$ which. The later is considered as welfare gain in our analysis.

## 4.5. Applying SMART Stimulation for Afghanistan and Analysis of the Results

We use the COMTRADE and TRAINS data to run the stimulation. In cases where the data is not available at any source, the mirror effect has been used, under which data is taken from the exports of partner to Afghanistan. It is important to note that the stimulation is run taking the whole world as one party (exporting) and Afghanistan as importing party. A cost-benefit analysis for each major trading partner of Afghanistan is beyond the scope of this paper and can be undertaken in a separate study using the same model.

Table 4.1 Top 25 Products with greatest trade effect (Value in million USD)

| Rank | HS Code | at 10% tariff cut | at 5% tariff cut |
|---|---|---|---|
| 1 | 87 | 39.70 | 19.85 |
| 2 | 11 | 35.49 | 17.75 |
| 3 | 12 | 23.71 | 11.85 |
| 4 | 27 | 10.97 | 5.49 |
| 5 | 85 | 2.83 | 1.41 |
| 6 | 84 | 1.91 | 0.96 |
| 7 | 93 | 1.84 | 0.92 |
| 8 | 86 | 1.82 | 0.91 |
| 9 | 7 | 1.81 | 0.90 |
| 10 | 4 | 1.79 | 0.90 |
| 11 | 10 | 1.61 | 0.80 |
| 12 | 90 | 1.49 | 0.00 |
| 13 | 16 | 1.49 | 0.74 |
| 14 | 25 | 1.44 | 0.72 |
| 15 | 57 | 1.38 | 0.69 |
| 16 | 39 | 1.37 | 0.68 |
| 17 | 24 | 1.36 | 0.68 |
| 18 | 72 | 0.98 | 0.49 |
| 19 | 44 | 0.95 | 0.48 |
| 20 | 8 | 0.91 | 0.12 |
| 21 | 73 | 0.77 | 0.39 |
| 22 | 63 | 0.72 | 0.36 |
| 23 | 88 | 0.65 | 0.32 |
| 24 | 18 | 0.64 | 0.10 |
| 25 | 34 | 0.57 | 0.28 |
| Total of 97 Chapters | | 145.01 | 89.81 |
| Total of Top 25 Items | | 137.64 | 67.51 |
| Percentage in total | | 94.92 | 75.17 |

In our model we consider the products from Nomenclature HS2 which includes 97 chapters across industries and sectors. Since there are many products under each chapter and analysis of each product which includes thousands of products is not possible in a paper like this, we consider the weighted average of chapters. Among the 97 chapters the top 25 chapters which constitutes more than 75% of the effect has been represented and the detailed result of the analysis of 97 chapters is tabulated in Appendix I. The top 25 products with greatest trade effect have been represented in table 4.1.

**Table 4.2 Top 25 Products with greatest Revenue effect (Value in million USD)**

| Rank | HS Code | at 10% tariff cut | at 5% tariff cut |
|---|---|---|---|
| 1 | 87 | -3.79 | -1.88 |
| 2 | 11 | -3.73 | -1.84 |
| 3 | 12 | -3.16 | -1.50 |
| 4 | 27 | -2.68 | -1.34 |
| 5 | 85 | -2.19 | -1.09 |
| 6 | 84 | -1.70 | -0.85 |
| 7 | 93 | -1.41 | -0.70 |
| 8 | 86 | -0.88 | -0.44 |
| 9 | 7 | -0.87 | -0.44 |
| 10 | 4 | -0.83 | -0.42 |
| 11 | 10 | -0.79 | -0.39 |
| 12 | 90 | -0.70 | -0.35 |
| 13 | 16 | -0.67 | -0.01 |
| 14 | 25 | -0.65 | -0.32 |
| 15 | 57 | -0.61 | -0.30 |
| 16 | 39 | -0.51 | -0.10 |
| 17 | 24 | -0.49 | -0.01 |
| 18 | 72 | -0.47 | -0.02 |
| 19 | 44 | -0.42 | -0.21 |
| 20 | 8 | -0.39 | -0.19 |
| 21 | 73 | -0.38 | -0.15 |
| 22 | 63 | -0.35 | -0.17 |
| 23 | 88 | -0.35 | -0.17 |
| 24 | 18 | -0.22 | -0.11 |
| 25 | 34 | -0.22 | -0.10 |
| Total of 97 Chapters | | -31.15 | -15.27 |
| Total effect of Top 25 chapters | | -28.25 | -12.99 |
| Percentage in total | | 90.70 | 85.09 |

If the tariff cut of 10% is applied, the top 25 products in this table will generate 137 million USD worth of trade out of total 145 million USD that is going to be generated; whereas if the tariff cut is 5% the products included in these 25 chapters will generate 67.17 million USD extra trade. The first item in the table is chapter (HS87) which is aircraft, spacecraft, and parts thereof. This can be partly because of its expensive nature which makes it an outlier. However, the second, third and ninth top group of products is chapter (HS11), (HS12) and (HS07).

These are the commodities which are also domestically produced. If we look at table 4.2 we will see that these items have the greatest revenue effect as well. Therefore, special care needs to be taken while bounding the tariffs for these items. Likewise, there are more products such as cereals, textiles and dairy products included in this table which is produced locally and requires special focus. Interestingly, those with greatest trade effect correspond to greatest revenue effect as well.

Table 4.3 Top 25 Products with greatest Consumer Surplus Effect
(Value in million USD)

| Rank | Product Code | at 10% tariff cut | at 5% tariff cut |
|---|---|---|---|
| 1 | 87 | 3.15 | 1.62 |
| 2 | 11 | 1.57 | 0.81 |
| 3 | 12 | 0.98 | 0.50 |
| 4 | 27 | 0.65 | 0.33 |
| 5 | 85 | 0.24 | 0.12 |
| 6 | 84 | 0.21 | 0.11 |
| 7 | 93 | 0.17 | 0.09 |
| 8 | 86 | 0.16 | 0.08 |
| 9 | 7 | 0.15 | 0.08 |
| 10 | 4 | 0.13 | 0.07 |
| 11 | 10 | 0.12 | 0.06 |
| 12 | 90 | 0.10 | 0.05 |
| 13 | 16 | 0.10 | 0.05 |
| 14 | 25 | 0.09 | 0.01 |
| 15 | 57 | 0.08 | 0.04 |
| 16 | 39 | 0.08 | 0.04 |
| 17 | 24 | 0.06 | 0.03 |
| 18 | 72 | 0.06 | 0.03 |
| 19 | 44 | 0.06 | 0.03 |
| 20 | 8 | 0.05 | 0.02 |
| 21 | 73 | 0.04 | 0.02 |
| 22 | 63 | 0.04 | 0.00 |
| 23 | 88 | 0.04 | 0.01 |
| 24 | 18 | 0.03 | 0.00 |
| 25 | 34 | 0.03 | 0.02 |
| Total effect of 97 Chapters | | 8.80 | 5.34 |
| Total of Top 25 Items | | 8.38 | 4.21 |
| Percentage in total | | 95.1620714 | 78.89283802 |

If the tariffs are reduced to 10% the total revenue loss will be 31.15 million USD and the revenue loss attributed to top 25 chapters will be 28 million USD which makes up 90% of the total revenue loss. On the other hand if the tariff cut is 5% the corresponding revenue loss will be half. Consumer surplus have similar story; those with trade creation and greater revenue loss leads to more consumer gain (table 4.3).

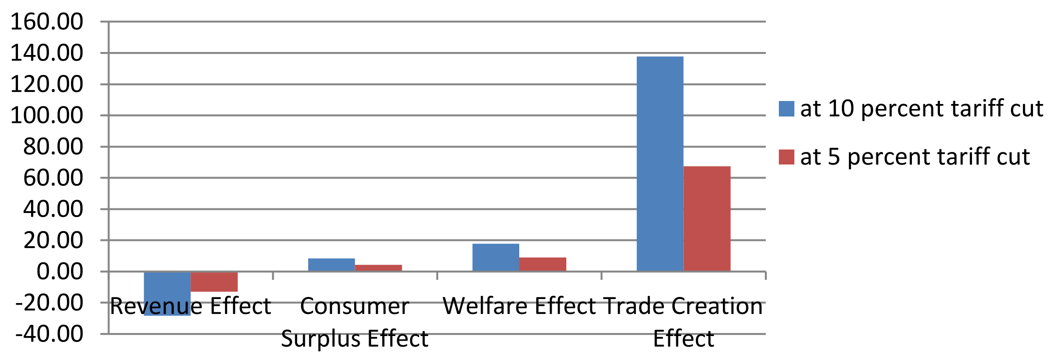
| Table 4.4. Top 25 Products with greatest Welfare Effect (value in million USD) | | | |
|---|---|---|---|
| Rank | HS Code | at 10% tariff cut | at 5% tariff cut |
| 1 | 87 | 10.638 | 5.459 |
| 2 | 11 | 2.121 | 1.089 |
| 3 | 12 | 1.686 | 0.865 |
| `4 | 27 | 0.944 | 0.484 |
| 5 | 85 | 0.291 | 0.149 |
| 6 | 84 | 0.220 | 0.113 |
| 7 | 93 | 0.203 | 0.010 |
| 8 | 86 | 0.194 | 0.099 |
| 9 | 7 | 0.174 | 0.089 |
| 10 | 4 | 0.161 | 0.083 |
| 11 | 10 | 0.138 | 0.071 |
| 12 | 90 | 0.130 | 0.067 |
| 13 | 16 | 0.128 | 0.066 |
| 14 | 25 | 0.118 | 0.060 |
| 15 | 57 | 0.106 | 0.054 |
| 16 | 39 | 0.091 | 0.047 |
| 17 | 24 | 0.078 | 0.040 |
| 18 | 72 | 0.069 | 0.010 |
| 19 | 44 | 0.063 | 0.032 |
| 20 | 8 | 0.056 | 0.029 |
| 21 | 73 | 0.053 | 0.027 |
| 22 | 63 | 0.047 | 0.024 |
| 23 | 88 | 0.045 | 0.002 |
| 24 | 18 | 0.043 | 0.022 |
| 25 | 34 | 0.035 | 0.000 |
| Total effect of 97 Chapters | | 18.27 | 10.14 |
| Total of Top 28 Items | | 17.79 | 8.99 |
| Percentage in total | | 97.38327782 | 88.66513246 |

This is consistent with the theory; that is, goods will flow in domestic markets with lesser prices and the consumer will be in a better position to command more goods and services at a cheaper price. Total consumer surplus will be 8.8 million USD and 5.34 million USD at 10% and 5% tariff cut respectively; out of this the corresponding consumer welfare effect for top 25 groups of goods will be 8.38 million USD and 4.21 million USD, which makes up 95% and 78.89% of total trade respectively. Table 4.4 shows the result of the SMART stimulation for 25 chapters with greatest welfare effect. The total welfare that is going to be generated from trade liberalization will be 18.27 million USD and 10.14 million USD at 10% and 5% tariff cut respectively. These products constitute 97% and 88% of the total welfare effect among all imported goods.

Implicitly one can infer that this should not be the case if domestic production is taken into account. If cost of production is high and the price of domestic products has to match with cheaper imported goods, then producers will be worse off. The result of stimulation is only geared towards the revenue, consumer surplus and efficiency and it does not incorporate the producers in the calculations. According to the theory welfare is the sum of consumer welfare, producer welfare and government revenue. Having the consumer surplus, government revenue and welfare we can calculate the producer’s surplus/loss; but in our model WITS/SMART stimulation does not calculate welfare as the Partial Equilibrium Theory predicts, rather it considers welfare in terms of efficiency gain/loss. Therefore, we cannot derive the effect of tariff cuts on the producers directly from the model.

However, agriculture is the most important sector of the economy which has the potential to suffice domestic demand. This sector is the major employment generating sectors (World Bank, 2012); but due to inefficient production and high cost of production with cheap flow of imported goods the producers in this sector might incur a loss and hence the incentive for domestic production might not continue to exist. Therefore, the long term development goals of Afghanistan as stipulated in the ANDS requires such sectors to be protected and that requires freedom to often change import policies as per the requirement.

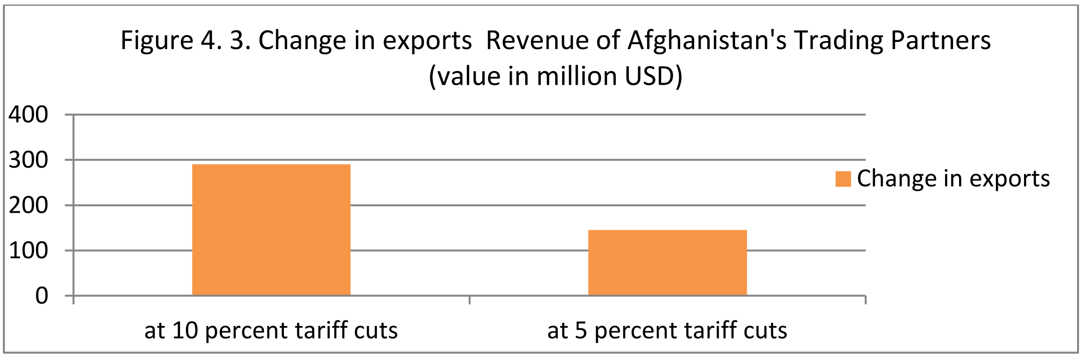
Figure 4.2 Partial Equilibruim Result of top 25 Tariff Schedules (Value in million USD)




Furthermore, small industries like textile, leather, edible oil, cement, soap, pharmaceuticals, coal, fertilizers and construction materials have the potential to grow and our analysis also show that consumer surplus, revenue loss and trade creation for these products is huge and at higher tariff cuts producers of these industries may be thrown out in the competition. Given that the tariff cuts may not take place for the reason we pointed out above, but our findings suggest that the binding rate for these commodities should be kept higher. Hence, maintaining a policy space which allows modifying import policies according national development plans is very important for an LDC acceding county like Afghanistan.

| Table 4.5. Comparative costs and benefits of tariff cut (value in million USD) | | |
|---|---|---|
| Effect of tariff cut | At 10% tariff cut | At 5% tariff cut |
| Revenue Effect | -28.25 | -13.00 |
| Consumer Surplus Effect | 8.38 | 4.21 |
| Welfare Effect | 17.79 | 8.99 |
| Trade Creation Effect | 137.64 | 67.52 |

The trading partners who supplies goods and services to Afghanistan will gain more than proportionate to the welfare and consumer gain in Afghanistan (Figure 4.1). The exporters' revenue will increase by 290 million USD and 145 million USD at 10% and 5% tariff cut respectively.




Hence, our analysis in this chapter clearly indicates that that the more the tariff cuts, the more flow of goods and services in the country. Since Afghanistan is not an industrial country and imports all industrial needs, one may argue that as long as we are concerned with the consumers liberalization of markets for imports shall serve the purpose. It should be noted that even if Afghanistan is not an industrial country and in the short run competition might not be considered as a treat to its domestic industrial producers, but we have evidence of small scale industries losing out in the face of competition. On the other hand in the long run it may pose a treat for the emerging industry in the country. Furthermore, we have evidence of multinational companies who deal with retail agribusiness, which has lead to agrarian distress in the host countries. Since Afghanistan is an agricultural country this treat should not be underestimated as well. However, the country can only benefit from accession with proper legal and institutional set up. In the next section we discuss various implications of accession and challenges ahead.

# 5 Post Accession Challenges

## 5.1. Development Challenges: Support of agriculture and infant industries

Our empirical analysis in the previous section highlights the expected benefits and costs in terms of consumer welfare, efficiency and revenue. Consistent with the theory our results show that at 10% and 5% tariff cuts consumers will gain, government revenue will fall and imports will increase. But the SMART stimulation does not incorporate producers in the calculation of cost and benefits, while the theory suggests that small farmers lose as a result of trade liberalization (Reddy, 2007). However, our motivation is to assess the cost and benefits of accession, but our results except for the revenue loss, does not explain other implications on the economy. An important aspect of development in all schools of thoughts is economic growth. GDP growth is a necessary condition for development. Therefore, for an economy to grow it has to produce more goods and services, export more and gain more market share in the global markets. Neoliberals take this point as ransom and argue that increased market share can be obtained by uninterrupted market forces and liberalization of the economy. This is exactly what WTO also promotes: in order to have growth we need to produce more, production requires larger market (demand) and this can be attained through international trade; and trade can grow in a free trade regime which brings efficiency in international allocation of resources. This regime is facilitated by WTO agreements. The acceding member has to harmonize its national laws with the WTO trade laws and abide by MFN treatment of all WTO members with whom the country has signed MFN agreement. This implies that that country loses policy space for its national development strategies with WTO accession.

In this section we first have a look at the story of production sector in Afghanistan and assess how will it likely be in the post accession; and secondly we will highlight the necessity of maintaining broader and more nationally favorable policy space in support of production sector for long term development purposes.

Agriculture is the most important production sector of Afghan economy (20% of GDP, 2013). Due to its significance the government of Afghanistan has announced agriculture and industries in general the top priority investment sectors in the country (Government of Afghanistan, 2013). While on the one hand incentives are given in terms of tax exemption, land acquisition, license provision and export facilitation for domestic and international investors to commit their capital for production (AISA, 2013); on the other hand liberal import policies has been adopted to support consumers (MoCI, 2013). To keep the length of the section short, because of predominance of wheat in agriculture and historical importance and potential growth of textile I am considering two representatives from agriculture and industry, which is wheat and textiles respectively; and assess the potential effect of liberalization on domestic producers in these two sub sectors.

**a) Wheat Production**

Wheat is an important food staple in Afghanistan and almost all farmers allocate part of their land (70% of cropped area); or a season of production for wheat cultivation either for household consumption or for commercial purpose (FOCUS, 2007). In 1978, Afghanistan was self-sufficient in food production for its 14 million populations[21], but nearly two decades of war damaged or destroyed irrigation canals and storage and market infrastructure, severely decreasing the productive capacity of

[21] Afghanistan Research Newsletter, January/February 2011, Afghanistan Research and Evaluation Unit

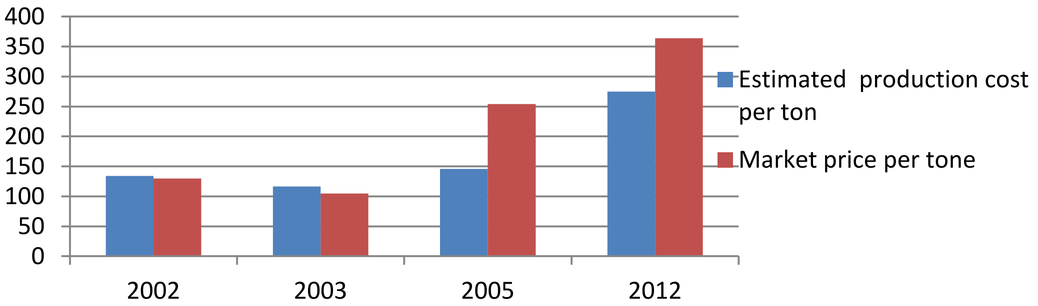
the wheat sub-sector. Consecutive years of drought further constrained agricultural production. Furthermore, numerous policies and programs on wheat within the region create significant obstacles and disincentives to investment in the subsector. For example, the few mills that have been established in Afghanistan with the help of foreign assistance have difficulty competing with Pakistani mills that receive subsidized credit and other forms of assistance.

In 2003, the total quantity of domestically produced wheat that was marketed may have amounted to 25% of the country's production (Chabot and Dorosh, 2007). In a normal year, the northern region of Afghanistan accounts for the vast majority of the relatively small quantity of wheat that is marketed. In drought years, marketed surpluses would be even lower (Suresh Persaud, 2010). However, there are no studies that quantify the relationship between wheat yields and wheat prices in Afghanistan, and formal estimates of wheat area elasticity are not available in the literature. According to Persaud, recent trends in Afghanistan's limited available data are consistent with an own-price elasticity of 0.20, that is, a 1% increase in the real price of wheat is associated with a 0.20% increase in wheat area in the following year, everything else remaining the same. Persaud indicated that based on within-sample predictions, this elasticity is plausible because it fits recent historical data reasonably well. He further concludes that**:** "improved irrigation, rather than higher wheat prices, could be the key factor spurring growth in wheat area as well as in yields. Lack of water, on the other hand, could constrain farmers' purchases of fertilizer and improved seed, even with higher farm prices of wheat". Hence, from these findings one can infer that there is likely a relationship between prices and production of wheat.

USAID Report (May 2007), concludes that continuous inflow of wheat to Afghan markets is important for food security and price stability, but does not address the impact of an extended wheat imports on the local wheat production. Afghan flour producers face challenges from inadequate domestic supplies of wheat and competition from imported flour (flour can be proxy for wheat), much of it from neighbouring Pakistan where wheat producers and flour millers benefit from Government support. Efforts to support Afghanistan's wheat production by increasing border protections, would lead to higher prices that harm consumers. Similarly, efforts to boost domestic production of wheat for milling through import policies would require a difficult-to-enforce combination of flour and wheat tariffs or other restrictions that would also impose costs on consumers. Hence according to the report, free trade, entailing unhindered wheat imports, may lead to stronger growth in domestic wheat production and consumption, with relatively small losses in farm production.

In this paper two studies on cost of wheat production in the Northeast region of Afghanistan by Hector Maletta (2004) and FAO (2013) have been used to find out cost of wheat production and then compare it with the market prices of wheat. Then the result argued in the context of liberal import policies. Figure 5.1 shows the result of calculations based on the mentioned sources. The data for prices has been collected from MAIL (2012), FAO (2003, 2012) and MoCI (2013). As per this calculation in the year 2002 and 2003 prices and cost of production is almost at par. Prices were very low from 2001 to 2005 due to regime change and huge inflow of food aid, currency appreciation (introduction of new Afghani currency) and tariff free imports.

**Figure 5.1 Production cost and market price of wheat in Northeast Region**




Source: Malleta (2004) & FAO (2013)

However, in 2005 the government decided to encourage agriculture as per ANDS development goal and resorted to tariff and non tariff barriers; still tariff rates for food items was 3.5 percent only. Afghanistan's trade policies have played a limited role in protecting domestic wheat producers. In the case of the wheat, Afghanistan's import policies have been relatively liberal where; the government has not established countervailing policies to Pakistan's[22] domestic grain market interventions. In 2007, import tariffs on wheat and flour were 3.5 percent (Schulte, 2007). In response to the 2008 price hikes, Afghanistan eliminated its import tariffs on wheat and flour in February of that year (World Bank, 2010). In 2009, Afghan wheat production rose, and growing conditions continued favourable in 2010. In an attempt to protect producers from falling prices, the Afghan Government set tariffs on wheat and flour imports at 10% (GoIRA, 2010; FAO, 2010). The following year (2011) brought a combination of poor growing conditions in Afghanistan and rising domestic and international prices. Accordingly, the Afghan Government reduced the tariff on imported wheat flour from 10 percent to 5 percent (USAID, 2011). However, the degree to which Government border policies have restricted movements of wheat and flour is uncertain. We observe in the figure that the margin have fallen due to reduction in tariffs, which implies that a further reduction would make the condition even worse. When the country loses policy space to modify the tariff rates as per the requirements is a matter of concern.

Furthermore, as the country was proceeding to its negotiations for WTO accession, it was encouraged to further lift all non tariff barriers, lower tariffs and make its trade laws consistent with WTO rules. It is worth noticing that due to lack of data on sales cost in our calculations marketing costs has not been

[22] Pakistan and Kazakhstan are the largest exporters of wheat to Afghanistan

taken into account. If we add those costs the farmer either loses out or the margin will be negligible. Furthermore, in calculation of cost of production we have to note that own labour and own land is also included. Given that Afghanistan was once a food sufficient economy (1970), the disincentive of low prices in comparison to cost of production might discourage the farmers to either forgo leisure to produce more or to shift for alternative sources of income.

**b) Textile**

In line with the constitution and Afghanistan National Development Goals (ANDS) the government has transformed all the laws from a centrally planned economy to market led system in the last decade. Since 2001 telecommunications, construction, banking and other services have made significant progress; but the industrial production's contribution in GDP is only 22.5%. Textile industry has long root in history and culture of the country for which the country was the silk trade route connecting east and west. In 1980s during the soviet regime the country was producing 350000 mt of processed cotton per year; while in the year 2013 the cotton production in the country amounted to 36300 mt only (AISA, 2013). Historically cotton and textile industry which consist of both private and public firms have been predominant in four major cities of the country, namely Gulbahar Textile Plant in north of Kabul, Kandahar Cotton Textile Enterprise, Herat Textile Project and Balkh Cotton Textile Enterprise. Currently 66% of total textile production is sold at the domestic markets, 27% at the national markets and 7% is exported to other countries. While cheap labour, cheap raw material and growing domestic demand are the promising factors for the growth of this sector; low productivity, lack of efficiency, tendency towards export of raw materials and luck of up to date technologies are the key challenges against its development. These weaknesses leave the domestic firms vulnerable against the foreign competitors and massive cheap imports. Out of 350 factories in Herat Industrial Park only 100 have survived against foreign competition (AISA, 2013). In pursuance of WTO accession of Afghanistan tariffs rates have been kept as low as 2.5% (OTEXA, 2011).

Commitment to WTO agreements will further leave the domestic small scale producers vulnerable against international cheap imports. Long term industrial development in the country not only requires strong initial support of the government in establishing domestic firms, but also constant protection from more efficient foreign companies. A loss of policy with WTO accession makes it impossible for the country to align its development goals with liberal policies.

Hence, for the reason argued above both agriculture and industry requires state support and protection against foreign imports. In the following subsection some flexibility available with the WTO to maintain more favourable policy space is discussed.

**5.2. Institutional Challenges:**

WTO accession merely is not an end in itself; rather it is the beginning of a process of reforms and adjustments. Benefits from membership to the WTO can be feasible only if competent institutions are in place to enable an economy utilize its advantages for economic growth. Institutions for this matter include both public and private stakeholders who are involved in an interdisciplinary task for the economic performance of a country (San José, 2007). Currently Ministry of Commerce and Industries (MoCI), Afghanistan Investment Support Agency (AISA), Customs and Revenue Department, Chamber of Commerce and Industries, Ministry of Minance, Ministry of Economy and Ministry of Foreign Affairs are the concerned government and independent agencies which coherently work towards facilitating international trade in Afghanistan. The efforts of AISA have been tremendous in terms of supporting the private sector and establishment of industrial parks. Afghanistan has modified major laws, institutions and legal frameworks for compliance purposes (WTO, 2013). However, existing institutions are not enough for availing the benefits from free trade under the WTO-based trading system. Institutional capacity is one of the major concerns for all LDCs and Afghanistan in particular. Afghanistan in order to protect its interest in the international trade under WTO regime needs to increase the capacity of its institutions for strong position in negotiating terms of trade and dispute resolution with the trading partners. Furthermore, WTO agreements are highly technical legal text which requires specialized understanding of terms on jargons, contexts and cases. Afghanistan needs to train highly competent human resources in international trade and trade lawyers who shall translate and interpret the text to the concerned authorities. Hence, identification of possible areas for trade-related capacity building areas is the main objective of this section. The following subsections present major challenges which fall under the purview of institutional challenges. The section contains opinions from the Ministry of Commerce and Industries of Islamic Republic of Afghanistan.

a) **Complex interdisciplinary relations**

Decision making in Afghanistan is a slow and tidy process. In order to enforce an international commitment in the legislation, even an action plan should go through various rigorous process which sometimes takes years (Baraimal Jerian, MoCI; 2014). One of the reasons for the delay in the final accession of Afghanistan to WTO is considered to be due to delay in passing the Law of Industrial Design; Law on Food; Law of Foreign Trade; and Patent Law, which is caused by institutional complexity in decision making. A proposal of legislation, policy or action plan for example concerning foreign trade in goods is viewed and commented on by various line ministries and independent bodies for final approval by Ministry of Justice and then sent to the Parliament. This issue remains a challenge in the post accession as well. Each LDC is given a transition period to reform the remaining Laws to conform to WTO regulations. Any delay in such decisions brings negative consequences to the country. Therefore, the decision making should become localized and subject-specific.

b) **Human Resources Capacity Building**

WTO negotiations, dispute settlement and continuous development and reformation of laws requires the engagement of highly specialized and expert professionals in various areas law, economics, international trade, etc. Attaining long term development goals requires a holistic approach to Human Capital development which would encompass acquisition of knowledge and skills in science and technology alongside practical entrepreneurial capabilities (ANDS, 2008). Currently, mission of human resources development is coordinated by the Human Resources Development Board which includes harmonization of strategic plans of sectoral ministries and donors (MoHE, 2013). However, such efforts should be strengthened so that a generation of highly specialized human capital takes over the decision making and economic planning in the country. Policy makers, advisors, and executives in various government bodies especially those which concern the management of international trade should be capable enough to understand and implement reformed laws and develop action plans which are in conformity with international commitments on one hand and sustainable development path on the other. Research & Development in various scientific and social issues in Afghanistan is a rare phenomenon. Research is the intellectual eye for every development project, but in Afghanistan think thanks and research organizations are at very primitive stage. Currently, Afghanistan Research and Evaluation Unit (AREU), Afghanistan Institute of Strategic Studies (AISS), AISA, CSO and some few donor funded organizations are engaged with research, but their products are limited to reports and less on economic and trade issues. The Afghanistan National Customs Academy (ANCA) is an example of training institutions which is working towards building capacity of officers at the Customs Department. Similar training institutions need to be established at various levels of the many stakeholders dealing with trade. For this purpose the country can apply for WTO/UNCTAD Technical Assistance to train experts and researchers on international trade. Researchers and students from Afghanistan should be admitted to WTO University and other international universities which specialize in international trade and trade law.

c) **Business Capacity**

Public and private business is at the core of every economic planning. An export-led growth under the WTO regime requires standard products and services for international markets. SPS agreements under WTO oblige the members to abide by standardization in quality and packing. All countries impose certain technical regulations and standards on their imports and goods and services which do not meet the necessary quality standards shall be restricted from imports. WTO Agreements on Technical Barriers has recognized this right and states that all members shall have the right to set quality standards to protect its human and animal lives, but with the condition that that technical regulations should not create unnecessary obstacles to trade and treat goods and services from all member countries in the same manner equal to domestic treatment[23]. Therefore, Afghanistan exporters should have the capacity to standardise their merchandises so that it meets international quality standards. Given the state of technology and capacity in Afghanistan fulfilling such standard is a challenging task before the government and private sector of the country. The country can benefit from the fruits of free international trade under WTO regime only if it can competently align its exports to accepted international standards.

These challenges can be addressed through technical assistance by redeveloped members of WTO. WTO membership provides Afghanistan an opportunity to modernize her institutional systems for improving safety and quality of goods and services, through capacity building programmes of UNCTAD, WTO, UNESCAP and other development organizations and partner countries. To boost up exports the country can seek Aid for Trade facility. However, both at pre accession and post accession negotiations the country should consider to maintain maximum policy space for the protection of its sensitive sectors.

**5.3. Legal Challenges**

If there is anything which will create trust for business to flourish in support of institutions, that is none other than legal framework. WTO emphasis on legal reforms to make the business and trade laws consistent with WTO regulations is of paramount importance. Perhaps the existing legal gaps have delayed Afghanistan's accession (Afghanistan WP report, 2013). Currently 22 laws are yet to be endorsed by Afghanistan Parliament to make all legislations in conformity with WTO requirements (Table 3.1). Afghanistan has been given a transitional period of three years to enforce the legal reforms in the following:

Table 3.1. Laws which are yet to be enacted

| Serial No | Legislation | WTO Agreement | Main Responsibility | Current Status | Location in Documentation | Date of Projected | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | Submission to Cabinet of Ministers | Submission to Parliament | Enactment |
| 1 | Law on Plant Protection and Quarantine (new Law) | SPS | Ministry of Agriculture, Irrigation, and Livestock (MAIL)- Plant Quarantine Directorate | Draft at the Ministry of Justice (MOJ) | WT/ACC/AFG/19 | First half of 2013 | Third quarter of 2013 | Fourth quarter of 2013/First quarter of 2014 |
| 2 | Law on Animal Health and Veterinary (new Law) | SPS | MAIL- General Directorate of | Draft at MOJ | WT/ACC/AFG/19 | First half of 2013 | Third quarter of 2013 | Fourth quarter of 2013/First |

[23] For further reading the reader can refer to Article 1 through Article 5 of WTO Agreements on Technical Barriers

| Table 3.1. Laws which are yet to be enacted | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Serial No | Legislation | WTO Agreement | Main Responsibility | Current Status | Location in Documentation | Date of Projected: Submission to Cabinet of Ministers | Date of Projected: Submission to Parliament | Date of Projected: Enactment |
| | | | Animal Health | | | | | quarter of 2014 |
| 3 | Law on Food Safety (new Law) | SPS | MPH and MAIL-General Directorate of Animal Health | Draft at MOJ | WT/ACC/AFG /19 | First half of 2013 | Third quarter of 2013 | Fourth quarter of 2013/First quarter of 2014 |
| 4 | Law on Standards and Technical Regulations (new Law) | TBT | Afghan National Standardization Agency (ANSA) | Draft at MOJ | WT/ACC/AFG /19 | First half of 2013 | Third quarter of 2013 | Fourth quarter of 2013/First quarter of 2014 |
| 5 | Amendments to the 2005 Customs Law | CVA ROO | Afghan Customs Department (ACD) | Draft at MOJ | WT/ACC/AFG /22 | First half of 2013 | Third quarter of 2013 | Fourth quarter of 2013/First quarter of 2014 |
| 6 | Regulations on Customs Valuation (incl. interpretative notes and software and interest charge valuation) | CVA | ACD | Draft has been prepared | WT/ACC/AFG /20 | First half of 2013 | N/A | As soon as Amendments to Customs Law are adopted |
| 7 | Amendments to the Law on Supporting the Rights of Inventors and Discoverers of 31 April 2009 (Patents Law) | TRIPS | Ministry of Commerce and Industries (MoCI) | Draft at MOJ | WT/ACC/AFG /21 | First half of 2013 | Third quarter of 2013 | Fourth quarter of 2013/First quarter of 2014 |
| 8 | Amendments to the Law on Trade Marks Registration of 1 September 2009 | TRIPS | MoCI | Draft at MOJ | WT/ACC/AFG /22 | First half of 2013 | Third quarter of 2013 | Fourth quarter of 2013/First quarter of 2014 |
| 9 | Amendments to the Law on Supporting the Right of Authors, Composers, Artists, and Researchers of 26 July 2008 (Copyrights Law) | TRIPS | Ministry of Information and Culture (MoIC) | Draft at MOJ | WT/ACC/AFG /21 | First half of 2013 | Third quarter of 2013 | Fourth quarter of 2013/First quarter of 2014 |
| 10 | Law on Geographical Indications (new) | TRIPS | MoCI | Draft at MOJ | WT/ACC/AFG /21 | First half of 2013 | Third quarter of 2013 | Fourth quarter of 2013/First quarter of 2014 |
| 11 | Law on Industrial Designs (new) | TRIPS | MoCI | Draft at MOJ | WT/ACC/AFG /21 | First half of 2013 | Third quarter of 2013 | Fourth quarter of 2013/First quarter of 2014 |
| 12 | Draft amendments to the Civil Procedure Code (Chapter Three) of 22 August 1990 | TRIPS | MoCI | Draft at MoCI | WT/ACC/AFG /7/Add.1 | First half of 2013 | Third quarter of 2013 | Fourth quarter of 2013/First quarter of 2014 |
| 13 | | | | | | | First half of 2014 | 2014 |
| 14 | Law on Topography of Integrated Circuits (new) | TRIPS | MoCI | Drafting is being finalized | To be submitted to the WTO during first quarter of 2013 | Second half of 2013 | First half of 2014 | 2014 |

| Table 3.1. Laws which are yet to be enacted | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | Date of Projected | | |
| Serial No | Legislation | WTO Agreement | Main Responsibility | Current Status | Location in Documentation | Submission to Cabinet of Ministers | Submission to Parliament | Enactment |
| 15 | Law on Optical Disks (new) | TRIPS | MoIC | Drafting is being finalized | To be submitted to the WTO during first quarter of 2013 | Second half of 2013 | First half of 2014 | 2014 |
| 16 | Law on Plant Variety Protection (new) | TRIPS | MAIL | Drafting has been initiated | To be submitted to the WTO during second quarter of 2013 | Second half of 2013 | First half of 2014 | 2014 |
| 17 | Amendments to the Law on Publication and Enforcement of Legislation of 1998 | General - Transparency | MoCI/Ministry of Justice | Draft at MOJ | WT/ACC/AFG/20 | First half of 2013 | Second half of 2013 | 2014 |
| 18 | Amendments to the Regulation on Drafting Procedure and Processing of Legal Acts | General - Transparency | MoCI/Ministry of Justice | Draft at MOJ | WT/ACC/AFG/20 | First half of 2013 | | 2014 |
| 19 | Law on Foreign Trade in Goods (new) | GATT and Import Licensing Procedures | MoCI | Draft has been prepared | WT/ACC/AFG/23 | Second half of 2013 | First half of 2014 | 2014 |
| 20 | Law on Safeguards (new) | Agreement on Safeguards | MoCI | Draft has been prepared | WT/ACC/AFG/23 | Second half of 2013 | First half of 2014 | 2014 |
| Source: WT/ACC/AFG/9/Rev.2; 5 December 2012 | | | | | | | | |

For instance these legislations include Law on Plant Protection and Quarantine, Regulations on Customs Valuation, Patents Law and Law on Foreign Trade in Goods[24]. After accession the legal reforms shall still remain a challenge for Afghanistan. WTO trade regime works with full compliance of legal and institutional framework of member countries.

### 3.4. Environmental Challenges

In thirst of growth and short term development of infrastructure, it so happens that an unsustainable development path may be adopted, in which the property rights to domestic and international firms are bestowed and they in pursuit of their personal interest voraciously extract resources that contributes to resource depletion and environmental degradation. Afghanistan in terms of its resources is the best FDI destination, which on one hand is beneficial to the economy from employment and GDP growth perspective, and on the other hand given the institutional and legal weakness in Afghanistan privatization of water, soil, mineral resources, flora and fauna of the country can lead to an extremely challenging environmental issues both from pollution generation and scarce resource

[24] Refer to WT/ACC/AFG/9/Rev.2

exploitation. Evidence of deforestation and pollution in countries like India, Nepal, Indonesia and South Africa highlights this danger for any other country pushing FDI which is facilitated by WTO commitments. Currently the National Environmental Protection Agency (NEPA) is the only organization which works for environmental sustainability in the country. It should be noticed that Multinational Corporations in pursuit of minimized cost choose developing and leased developed countries for the purpose of production and resource extraction. Therefore, Afghanistan should establish competent legal and institutional frameworks to address the challenge posed against environment by economic growth. Sanitary and Phytosanitary Measures (SPS Agreement) are the agreements under WTO which allows members to take all necessary measures to protect human and animal lives in their territory (WTO). Under this agreement Afghan authorities can establish laws for necessary environmental measures.

**Recommendations for Capacity Building to Deal with Challenges:**

Based on the analysis presented in this paper the following recommendations are suggested for policy purposes:

1 Trade as an instrument of development is mainstreamed in the Afghanistan National Development Strategy and WTO accession is considered an important step towards attaining this goal. However, despite emphasise on central role of trade in economic development, operational objectives and action plans for trade are yet missing. Strategies and plans relevant to trade either does not exist or if exists are in the form of various sectoral strategies such as MoCI strategy, Private Sector Development Strategy, Export Promotion Policy, Industrial Policy, etc. These strategies need to be integrated in one single trade development strategy document encompassing all trade-related priorities across different government departments.

2 The Diagnostic Trade Integration Study (DTIS) and Action Matrix still do not reflect the Afghan Government trade strategy. Rather, Afghanistan was accepted as beneficiary country to EIF[25] process in 2008 by EIF board[26]. Afghanistan needs to fully prioritize its needs to get

[25] Enhanced Integrated Framework (EFI): To access Aid for Trade, developing countries must clearly prioritize their needs. In return, their development partners need to provide trade-related assistance and capacity building to meet the demand with a supply of resources. To bridge the gap between demand and supply as effectively as possible, developing countries need to mainstream their demand for Aid for Trade into their national development strategies, such as the Poverty Reduction Strategy Papers (PRSPs), since these form the platform on which donors base their aid planning.

The EIF is the main mechanism through which LDCs access additional Aid for Trade resources. The EIF provides a procedure for:

- Clearly mapping out and prioritizing key needs for trade-related assistance and capacity building, including trade infrastructure, supply and productive capacity
- Submitting these demands to the donor community of each country for accessing funding beyond the resources available in the Framework's own Trust Fund.

LDCs can channel their demand for Aid for Trade through the EIF process (involving Diagnostic Trade Integration Studies). The supply of resources is coordinated through local EIF institutions, such as the EIF Focal Point, the National Implementation Unit and the Donor Facilitator.

Predictable, sustainable and effective financing is fundamental for fulfilling the Aid for Trade mandate. The EIF process not only assists LDCs in mainstreaming trade into their national development strategies but also provides LDCs with the platform for leveraging additional funding from their development partners. This allows them to translate their trade-related needs into funded and deliverable projects.

full access to EIF. Furthermore since EIF is one of the programs that can be designed under DTIS and Action Matrix, the need for such a study is crucial to provide intellectual input based on concrete empirical and contextual studies. The study can be undertaken by engaging a large number of stakeholders in government, private sector, academia and development community with the purpose of understanding the country context, critical issues affecting the development of the private sector and trade in Afghanistan, which would provide on-going and planned programmes and analytical work, and seek relevant inputs regarding potential areas to cover in the report. In such a study prioritization in the following areas are recommended:

i. Building productive capacity, through the support of private and public sector to enhance their competitiveness, export diversification and value chains.
ii. Building Economic Infrastructure such as transport facilities, cross-border infrastructure, power, raw material, springhouses, etc.
iii. Enhance the activities of complementary services such as credit facilities, insurance and consultancies.
iv. Trade Policy and Regulations: Trade facilitation; trade policy analysis, negotiations and implementation.

Currently the operational strategy in Afghanistan has prioritized infrastructure within the annual budget as prescribed by the ANDS. However in the meantime the other priority areas should be focused upon as well and presented in DTIS to get Aid for Trade Facilities from donors and development organizations. To prepare concise and justifiable financial needs in DTIS, Afghan government should engage in bilateral and multilateral dialogue with the donor community, private sector, civil society and other major stakeholders, both regional-wide and internationally. IMF, World Bank, UNCTAD and some development organizations such as USAID, GIZ, JICA and donor countries which are currently involved in multi-pronged development activities in Afghanistan should be discussed with to formulate a financial need for the priority areas.

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The EIF's Trust Fund is not sufficient on its own to fund many of the activities that LDCs need to boost their trade capacity. Additional funds sought through the EIF process over and above the EIF Trust Fund represent a significant proportion of Aid for Trade. The EIF therefore forms a key pillar within the much larger edifice of Aid for Trade.
Tier 1 of the EIF Trust Fund provides funding to strengthen LDCs' capacity to manage the benefits of Aid for Trade. This funding helps to incorporate trade into national development plans and to translate trade priorities into bankable projects for broader Aid for Trade funding.
Source : http://www.wto.org/english/tratop_e/devel_e/a4t_e/enhance_if_e.htm

[26] The first EIF Awareness workshop was held in the Ministry of Commerce and Industry in May 2008. As an outcome of this workshop the National Steering Committee chaired by the Deputy Minister for Trade, National Focal Point and the Donor Facilitator were appointed by the Minister of Commerce and Industry. Afghanistan is still waiting for the EIF Board to assist with the establishment of the National Implementing Unit in order to start the process.

3 Major development projects in Afghanistan in the last 13 years have been engineered and run by the donor party, which has created multiplicity in the system and have not attained the would-be capacity despite huge amount of funds. Trade is one of the important development goals which may attract similar financial support from the international community. Trade strategies should be coordinated, monitored and evaluated by the government of Afghanistan under the leadership of Ministry of Commerce and Industries. In other word trade development, prioritization and implementations should be and Afghan-initiated and Afghan-led process, rather than multiple donor operating independently. The national committee comprising of various stakeholders inside the government to oversee and coordinate trade-related activities may be established to direct the international funds based on the priority areas. Moreover, the Afghan government should establish a mechanism to discuss the impact of trade-related programmes with the donors and other stakeholders.

4 Though the Ministry of Commerce and Industries (MoCI) of Afghanistan develops and strategizes trade policies, formulation of action plans and legal proposals specifically for WTO requirements brings in various stakeholders of the economy, which makes the process longer than it should be. To address this challenge, various agencies and ministries should be brought together in a single platform to decide on trade-related issues and oversee the performance.

5 For, a successful Aid for Trade Programme implementation the government of Afghanistan needs to first include it on its top agenda and secondly develop a monitoring and evaluation mechanism to assess and oversee the performance of various donors and players who are engaged in the process of trade facilitation in Afghanistan. And later on the entire Aid for Trade Programme should be designed and implemented by the government, rather than individual players.

Conclusion:

Consistent with the theory our ex-ante cost-benefit analysis results show that WTO accession and undertaking further tariff cuts will have negative impact on the revenue, positive impact on the consumers and the welfare gain which signals efficiency improvement will be positive. However, the model does not allow for the assessment of production sector of the economy and hence an important sector remains out of the purview of the stimulation. But, from the arguments made in chapter 6 one can infer that due to lack of competence and efficiency in the domestic production the sensitive production sectors of the country lose in the competition. Our analysis started with a clear assumption that Afghanistan's tariff schedules are already consistent with the WTO prescription and may not be required to undertake further commitments with regards to tariff cuts, but a 10% and 5% cut stimulation can be used as a proxy to project the extent of the effect which in turn helps to identify the sensitive sectors of the economy and negotiate for maintaining the least possible binding and highest possible tariff rates. Policy space concept allows for an LDC to preserve some freedom which would facilitate division of policies with regards to long term development goals. Agriculture, textile, cement and services are among important sectors of the economy which requires due consideration. Further research can be undertaken on the trade in each commodity with specific countries to assess the trade potential of Afghanistan by applying same stimulation and the gravity models.

The real challenges start after accession. Afghanistan should create necessary capacity to enable it integrate with the competitive world economy as a competent trading partner which will meet all international quality requirements and standards. This can happen only if the country establishes capable institutions to manage its trade and investment in a rule based trading system. Legal framework remains a challenge which will take long parliamentary engagements in the country.

The paper is concluded by a quotation from Prof. Joseph Stiglitz[27] who said pointing at India "you have not used all the flexibilities available at the WTO, you could do a lot more; and if you sign some of the agreements you will be much harmed. So you have to use all the flexibilities you have and be very careful in not signing some of the agreements."

[27] Notes from 'Annual High-level Seminar on The Future of the World Economy and Globalization in the aftermath of Global Financial Crisis: Implications for Developing Economies', organized by UN ESCAP, 14 January 2014

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# APPENDIXE

Appendix I, Table (a): Tariff Structure of Afghanistan for all Products

| Year | Simple Average (MFN Applied) | Duty Free (MFN Applied) | Non ad valorem duties (MFN Applied) | Duties>15% (MFN Applied) | Duties > 3 * AVG | Maximum duty | Number of distinct duty | Coefficient of variation | Number of MFN applied tariff lines |
|---|---|---|---|---|---|---|---|---|---|
| 2006 | 5.7 | 0.5 | 0.8 | 3.2 | 0.3 | 25 | 53 | 61 | 5,376 |
| 2007 | 5.7 | 0.5 | 0.8 | 3.2 | 0.3 | 25 | 61 | 61 | 5,376 |
| 2008 | 5.7 | 0.5 | 0.8 | 3.2 | 0.3 | 40 | 12 | 65 | 5,208 |
| 2009 | 5.6 | 0.5 | 0.9 | 3.2 | 0.3 | 40 | 12 | 65 | 5,207 |
| 2010 | 5.6 | 0.5 | 0.9 | 3.2 | 0.3 | 40 | 12 | 65 | 5,207 |
| 2011 | 5.6 | 0.5 | 0.9 | 3.2 | 0.3 | 40 | 12 | 65 | 5,207 |
| 2012 | 5.9 | 0.5 | 0.9 | 4.6 | 1.1 | 50 | 14 | 69 | 5,331 |

Appendix I, Table (b): Tariff Structure of Afghanistan for Non Agricultural Products

| Year | Simple Avg (MFN Applied) | Duty Free (MFN Applied) | Non ad valorem duties (MFN Applied) | Duties>15% (MFN Applied) | Duties > 3 * AVG | Maximum duty | Number of distinct duty | Coefficient of variation | Number of MFN applied tariff lines |
|---|---|---|---|---|---|---|---|---|---|
| 2006 | 5.7 | 0.4 | 0.1 | 2.4 | 0.2 | 25 | 14 | 59 | 4668 |
| 2007 | 5.7 | 0.4 | 0.1 | 2.4 | 0.2 | 25 | 14 | 59 | 4668 |
| 2008 | 5.5 | 0.4 | 0 | 2.3 | 0.2 | 25 | 11 | 61 | 4524 |
| 2009 | 5.5 | 0.4 | 0.1 | 2.3 | 0.2 | 25 | 11 | 61 | 4524 |
| 2010 | 5.5 | 0.4 | 0.1 | 2.3 | 0.2 | 25 | 11 | 61 | 4523 |
| 2011 | 5.5 | 0.4 | 0.1 | 2.3 | 0.2 | 25 | 11 | 61 | 4523 |
| 2012 | 5.7 | 0.4 | 0.2 | 2.8 | 6 | 50 | 13 | 69 | 4571 |

Appendix I, Table I (c) : Tariff Structure of Afghanistan for Agricultural Products

| Year | Simple Average (MFN Applied) | Duty Free (MFN Applied) | Non ad valorem duties (MFN Applied) | Duties>15% (MFN Applied) | Duties > 3 * AVG | Maximum duty | Number of distinct duty | Coefficient of variation | Number of MFN applied tariff lines |
|---|---|---|---|---|---|---|---|---|---|
| 2006 | 5.5 | 1.2 | 5.6 | 8 | 0.7 | 20 | 46 | 75 | 708 |
| 2007 | 5.5 | 1.2 | 5.6 | 8 | 0.7 | 20 | 46 | 75 | 708 |
| 2008 | 5.8 | 1.2 | 0 | 9 | 0.8 | 40 | 8 | 87 | 684 |
| 2009 | 5.8 | 1.2 | 5.7 | 9 | 0.8 | 40 | 8 | 87 | 684 |
| 2010 | 5.8 | 1.2 | 5.7 | 9 | 0.8 | 40 | 8 | 87 | 684 |
| 2011 | 5.8 | 1.2 | 5.7 | 9 | 0.8 | 40 | 8 | 87 | 684 |
| 2012 | 7.1 | 1.3 | 5.4 | 15.6 | 3.1 | 25 | 9 | 81 | 760 |

## Appendix II: Details of the Analysis of the WITS/SMART Model

| HS Code | Old Weighted Rate | Import Demand Elasticity | | New Weighted Rate | | Trade Effect (million USD) | | Revenue Effect (million USD) | | Consumer Surplus (million USD) | | Welfare Effect (million USD) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 10% cut | 5% cut | 10% cut | 5%cut | 10% cut | 5%cut | 10% cut | 5%cut | 10%cut | 5%cut | 10%cut | 5% cut |
| 01 | 3.21 | 0.015 | 0.015 | 2.89 | 3.05 | 0.31 | 0.15 | 0.02 | 0.01 | 0.01 | 0.00 | 0.007 | 0.004 |
| 02 | 2.64 | 0.001 | 0.001 | 2.37 | 2.5 | 0.44 | 0.22 | 0.16 | 0.08 | 0.01 | 0.01 | 0.018 | 0.009 |
| 03 | 3.9 | 0.001 | 0.001 | 3.51 | 3.71 | 0.04 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.001 | 0.000 |
| 04 | 9.17 | 0.002 | 0.006 | 8.25 | 8.71 | 1.81 | 0.90 | 0.65 | 0.32 | 0.16 | 0.08 | 0.161 | 0.083 |
| 05 | 3.75 | 0.020 | 0.001 | 4.27 | 3.56 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | 0.000 |
| 06 | 4.75 | 0.001 | 0.001 | 8.92 | 4.51 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 |
| 07 | 9.91 | 0.011 | 0.006 | 15.11 | 9.41 | 1.82 | 0.91 | 0.88 | 0.44 | 0.17 | 0.09 | 0.194 | 0.099 |
| 08 | 16.79 | 0.001 | 0.001 | 5.77 | 15.95 | 0.95 | 0.48 | 1.41 | 0.70 | 0.15 | 0.08 | 0.128 | 0.066 |
| 09 | 6.41 | 0.001 | 0.003 | 2.25 | 6.09 | 0.18 | 0.09 | 0.09 | 0.04 | 0.01 | 0.01 | 0.008 | 0.004 |
| 10 | 2.5 | 0.002 | 0.001 | 4.2 | 2.38 | 1.79 | 0.90 | 0.35 | 0.17 | 0.04 | 0.02 | 0.043 | 0.022 |
| 11 | 4.67 | 0.002 | 0.019 | 2.3 | 4.43 | 35.49 | 17.75 | 0.38 | 0.15 | 1.57 | 0.81 | 1.686 | 0.865 |
| 12 | 5 | 0.001 | 0.000 | 4.5 | 4.75 | 0.19 | 17.74 | 0.02 | 0.16 | 0.00 | 0.86 | 0.004 | 0.865 |
| 13 | 2.56 | 0.001 | 0.001 | 4.5 | 2.43 | 0.00 | 0.10 | 0.00 | 0.01 | 0.00 | 0.00 | 0.000 | 0.002 |
| 14 | 5 | 0.000 | 0.001 | 2.16 | 4.75 | 0.01 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 |
| 15 | 5 | 0.002 | 0.001 | 7.73 | 4.75 | 1.49 | 0.00 | 0.67 | 0.01 | 0.03 | 0.00 | 0.035 | 0.000 |
| 16 | 2.39 | 0.001 | 0.004 | 5.63 | 2.28 | 0.20 | 0.75 | 0.03 | 0.33 | 0.02 | 0.02 | 0.019 | 0.018 |
| 17 | 8.59 | 0.001 | 0.001 | 8.23 | 8.16 | 0.64 | 0.10 | 0.49 | 0.01 | 0.04 | 0.01 | 0.069 | 0.010 |
| 18 | 6.25 | 0.005 | 0.001 | 8.79 | 5.94 | 0.05 | 0.32 | 0.05 | 0.24 | 0.00 | 0.02 | 0.005 | 0.035 |
| 19 | 9.15 | 0.002 | 0.002 | 6.21 | 8.69 | 0.45 | 0.03 | 0.47 | 0.02 | 0.04 | 0.00 | 0.045 | 0.002 |
| 20 | 9.76 | 0.006 | 0.002 | 9.84 | 9.28 | 0.23 | 0.23 | 0.20 | 0.24 | 0.02 | 0.02 | 0.019 | 0.023 |
| 21 | 6.9 | 0.000 | 0.001 | 4.38 | 6.55 | 0.91 | 0.12 | 0.51 | 0.10 | 0.09 | 0.01 | 0.203 | 0.010 |
| 22 | 4.87 | 0.001 | 0.001 | 4.78 | 4.63 | 0.48 | 0.24 | 0.15 | 0.07 | 0.02 | 0.01 | 0.091 | 0.047 |
| 23 | 5.31 | 0.001 | 0.033 | 9 | 5.04 | 0.11 | 0.06 | 0.04 | 0.02 | 0.01 | 0.00 | 0.008 | 0.004 |
| 24 | 10 | 0.001 | 0.002 | 7.81 | 9.5 | 1.37 | 0.68 | 0.02 | 0.02 | 0.13 | 0.07 | 0.130 | 0.067 |
| 25 | 8.68 | 0.002 | 0.001 | 2.25 | 8.25 | 1.49 | 0.74 | 2.68 | 1.34 | 0.12 | 0.06 | 0.078 | 0.040 |
| 26 | 2.5 | 0.001 | 0.027 | 3.92 | 2.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 |
| 27 | 4.36 | 0.004 | 0.001 | 3.75 | 4.14 | 23.71 | 11.85 | 3.73 | 1.84 | 0.98 | 0.50 | 2.121 | 1.089 |
| 28 | 4.17 | 0.001 | 0.010 | 4.05 | 3.96 | 0.01 | 0.01 | 0.01 | 0.01 | 0.00 | 0.00 | 0.001 | 0.000 |
| 29 | 4.5 | 0.001 | 0.003 | 2.25 | 4.27 | 0.02 | 0.01 | 0.01 | 0.01 | 0.00 | 0.00 | 0.001 | 0.000 |
| 30 | 2.5 | 0.001 | 0.001 | 1.97 | 2.38 | 0.19 | 0.09 | 0.18 | 0.09 | 0.00 | 0.00 | 0.004 | 0.002 |
| 31 | 2.19 | 0.001 | 0.001 | 1.69 | 2.08 | 0.05 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.001 | 0.001 |
| 32 | 1.88 | 0.001 | 0.001 | 10.64 | 1.79 | 0.11 | 0.05 | 0.07 | 0.04 | 0.00 | 0.00 | 0.003 | 0.001 |
| 33 | 11.82 | 0.001 | 0.001 | 4.59 | 11.23 | 0.19 | 0.09 | 0.22 | 0.11 | 0.02 | 0.01 | 0.025 | 0.013 |

## Appendix II: Details of the Analysis of the WITS/SMART Model (Continued)

| HS Code | Old Weighted Rate | Import Demand Elasticity | | New Weighted Rate | | Trade Effect (million USD) | | Revenue Effect (million USD) | | Consumer Surplus (million USD) | | Welfare Effect (million USD) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 10% cut | 5% cut | 10% cut | 5%cut | 10% cut | 5%cut | 10% cut | 5%cut | 10% cut | 5% cut | 10% cut | 5%cut |
| 34 | 5.1 | 0.003 | 0.001 | 4.5 | 4.85 | 0.57 | 0.28 | 0.19 | 0.09 | 0.03 | 0.01 | 0.027 | 0.014 |
| 35 | 5 | 0.005 | 0.001 | 8.1 | 4.75 | 0.11 | 0.05 | 0.00 | 0.00 | 0.01 | 0.00 | 0.005 | 0.003 |
| 36 | 9 | 0.001 | 0.001 | 5.46 | 8.55 | 0.04 | 0.02 | 0.09 | 0.04 | 0.00 | 0.00 | 0.003 | 0.001 |
| 37 | 6.07 | 0.001 | 0.001 | 4.28 | 5.77 | 0.01 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 |
| 38 | 4.76 | 0.001 | 0.002 | 5.41 | 4.52 | 0.07 | 0.04 | 0.05 | 0.03 | 0.00 | 0.00 | 0.004 | 0.002 |
| 39 | 6.01 | 0.001 | 0.001 | 5.84 | 5.71 | 1.38 | 0.69 | 0.83 | 0.42 | 0.08 | 0.04 | 0.118 | 0.060 |
| 40 | 6.49 | 0.001 | 0.001 | 4.5 | 6.17 | 0.28 | 0.14 | 0.42 | 0.21 | 0.02 | 0.01 | 0.016 | 0.008 |
| 41 | 5 | 0.003 | 0.003 | 9.72 | 4.75 | 0.13 | 0.07 | 0.00 | 0.00 | 0.01 | 0.00 | 0.006 | 0.003 |
| 42 | 10.8 | 0.001 | 0.001 | 2.25 | 10.26 | 0.05 | 0.03 | 0.07 | 0.04 | 0.01 | 0.00 | 0.006 | 0.003 |
| 43 | 2.5 | 0.001 | 0.018 | 5.39 | 2.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 |
| 44 | 5.99 | 0.000 | 0.001 | 4.05 | 5.69 | 0.98 | 0.49 | 0.70 | 0.35 | 0.06 | 0.03 | 0.047 | 0.024 |
| 45 | 4.5 | 0.002 | 0.001 | 8.46 | 4.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 |
| 46 | 9.4 | 0.001 | 0.001 | 4.5 | 8.93 | 0.02 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.002 | 0.001 |
| 47 | 5 | 0.001 | 0.001 | 4.13 | 4.75 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 |
| 48 | 4.59 | 0.002 | 0.002 | 5.14 | 4.36 | 0.35 | 0.18 | 0.14 | 0.07 | 0.02 | 0.01 | 0.030 | 0.015 |
| 49 | 5.72 | 0.008 | 0.001 | 2.25 | 5.43 | 0.10 | 0.05 | 0.05 | 0.03 | 0.01 | 0.00 | 0.008 | 0.004 |
| 50 | 2.5 | 0.001 | 0.001 | 1.97 | 2.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 |
| 51 | 2.19 | 0.059 | 0.001 | 3.75 | 2.08 | 0.00 | 0.00 | 0.04 | 0.02 | 0.00 | 0.00 | 0.000 | 0.000 |
| 52 | 4.17 | 0.002 | 0.002 | 2.25 | 3.96 | 0.01 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 |
| 53 | 2.5 | 0.002 | 0.004 | 2.25 | 2.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 |
| 54 | 2.5 | 0.009 | 0.001 | 2.25 | 2.38 | 0.02 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.001 | 0.000 |
| 55 | 2.5 | 0.001 | 0.004 | 7.7 | 2.38 | 0.02 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 |
| 56 | 8.55 | 0.001 | 0.001 | 13.76 | 8.12 | 0.00 | 0.00 | `0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 |
| 57 | 15.29 | 0.000 | 0.001 | 4.95 | 14.52 | 1.44 | 0.72 | 0.22 | 0.10 | 0.21 | 0.11 | 0.220 | 0.113 |
| 58 | 5.5 | 0.001 | 0.003 | 5.34 | 5.22 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 |
| 59 | 5.94 | 0.001 | 0.001 | 4.5 | 5.64 | 0.01 | 0.01 | 0.01 | 0.01 | 0.00 | 0.00 | 0.001 | 0.000 |
| 60 | 5 | 0.002 | 0.001 | 8.87 | 4.75 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 |
| 61 | 9.85 | 0.004 | 0.000 | 8.91 | 9.36 | 0.20 | 0.10 | 0.14 | 0.07 | 0.02 | 0.01 | 0.018 | 0.009 |
| 62 | 9.9 | 0.001 | 0.000 | 8.28 | 9.4 | 0.25 | 0.13 | 0.14 | 0.07 | 0.02 | 0.01 | 0.024 | 0.012 |
| 63 | 9.2 | 0.001 | 0.001 | 4.57 | 8.74 | 0.72 | 0.36 | 0.39 | 0.19 | 0.06 | 0.03 | 0.056 | 0.029 |
| 64 | 5.08 | 0.001 | 0.001 | 7.5 | 4.82 | 0.10 | 0.05 | 0.09 | 0.04 | 0.00 | 0.00 | 0.005 | 0.002 |
| 65 | 8.33 | 0.003 | 0.001 | 9 | 7.92 | 0.01 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.001 | 0.000 |
| 66 | 10 | 0.002 | 0.001 | 14.4 | 9.5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 |

## Appendix II: Details of the Analysis of the WITS/SMART Model (Continued)

| HS Code | Old Weighted Rate | Import Demand Elasticity | | New Weighted Rate | | Trade Effect (million USD) | | Revenue Effect (million USD) | | Consumer Surplus (million USD) | | Welfare Effect (million USD) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 10% cut | 5% cut | 10% cut | 5%cut | 10% cut | 5%cut | 10% cut | 5% cut | 10% cut | 5%cut | 10% cut | 5%cut |
| 67 | 16 | 0.001 | 0.001 | 10.09 | 15.2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 |
| 68 | 11.21 | 0.001 | 0.001 | 8.46 | 10.65 | 0.21 | 0.11 | 0.08 | 0.04 | 0.02 | 0.01 | 0.022 | 0.012 |
| 69 | 9.4 | 0.000 | 0.003 | 7.4 | 8.93 | 0.18 | 0.09 | 0.07 | 0.03 | 0.02 | 0.01 | 0.015 | 0.008 |
| 70 | 8.23 | 0.000 | 0.001 | 5.19 | 7.82 | 0.15 | 0.08 | 0.13 | 0.06 | 0.01 | 0.01 | 0.013 | 0.007 |
| 71 | 5.77 | 0.001 | 0.002 | 4.41 | 5.48 | 0.03 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.003 | 0.001 |
| 72 | 4.9 | 0.001 | 0.017 | 2.97 | 4.65 | 1.36 | 0.68 | 0.35 | 0.17 | 0.06 | 0.03 | 0.063 | 0.032 |
| 73 | 3.3 | 0.001 | 0.004 | 6.14 | 3.13 | 0.77 | 0.39 | 0.87 | 0.44 | 0.02 | 0.01 | 0.020 | 0.011 |
| 74 | 6.82 | 0.001 | 0.011 | 6.75 | 6.48 | 0.08 | 0.04 | 0.01 | 0.01 | 0.01 | 0.00 | 0.007 | 0.004 |
| 75 | 7.5 | 0.000 | 0.001 | 5.78 | 7.13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 |
| 76 | 6.42 | 0.000 | 0.008 | 5.4 | 6.1 | 0.33 | 0.17 | 0.07 | 0.03 | 0.02 | 0.01 | 0.030 | 0.015 |
| 77 | | 0.000 | 0.000 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 |
| 78 | 6 | 0.000 | 0.001 | 9 | 5.7 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 |
| 79 | 10 | 0.001 | 0.001 | 6.3 | 9.5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 |
| 80 | 7 | 0.001 | 0.001 | 6.3 | 6.65 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 |
| 81 | 7 | 0.001 | 0.001 | 8.37 | 6.65 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 |
| 82 | 9.3 | 0.001 | 0.001 | 5.36 | 8.83 | 0.12 | 0.06 | 0.11 | 0.06 | 0.01 | 0.01 | 0.011 | 0.006 |
| 83 | 5.96 | 0.001 | 0.001 | 3.49 | 5.66 | 0.05 | 0.03 | 0.04 | 0.02 | 0.00 | 0.00 | 0.002 | 0.001 |
| 84 | 3.87 | 0.001 | 0.031 | 5.61 | 3.68 | 2.83 | 1.41 | 1.70 | 0.85 | 0.10 | 0.05 | 0.138 | 0.071 |
| 85 | 6.24 | 0.002 | 0.001 | 4.95 | 5.93 | 10.97 | 5.49 | 3.79 | 1.88 | 0.65 | 0.33 | 0.944 | 0.484 |
| 86 | 5.5 | 0.001 | 0.009 | 7.51 | 5.22 | 1.84 | 0.92 | 0.05 | 0.03 | 0.10 | 0.05 | 0.174 | 0.089 |
| 87 | 8.35 | 0.000 | 0.001 | 4.3 | 7.93 | 39.70 | 19.85 | 3.16 | 1.50 | 3.15 | 1.62 | 10.638 | 5.459 |
| 88 | 4.77 | 0.001 | 0.001 | 7.33 | 4.53 | 0.65 | 0.32 | 0.79 | 0.39 | 0.03 | 0.02 | 0.028 | 0.014 |
| 89 | 8.14 | 0.002 | 0.001 | 4.74 | 7.74 | 0.05 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.004 | 0.002 |
| 90 | 5.27 | 0.001 | 0.001 | 7.51 | 5.01 | 1.61 | 0.80 | 2.19 | 1.09 | 0.08 | 0.04 | 0.106 | 0.054 |
| 91 | 8.35 | 0.001 | 0.002 | 8.36 | 7.93 | 0.03 | 0.02 | 0.03 | 0.01 | 0.00 | 0.00 | 0.002 | 0.001 |
| 92 | 9.29 | 0.001 | 0.004 | 11.92 | 8.82 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 |
| 93 | 13.25 | 0.001 | 0.013 | 9.62 | 12.59 | 1.91 | 0.96 | 0.07 | 0.03 | 0.24 | 0.12 | 0.291 | 0.149 |
| 94 | 10.69 | 0.001 | 0.001 | 9.37 | 10.15 | 0.46 | 0.23 | 0.61 | 0.30 | 0.05 | 0.02 | 0.053 | 0.027 |
| 95 | 10.41 | 0.000 | 0.000 | 0 | 9.89 | 0.00 | 0.03 | 0.00 | 0.03 | 0.00 | 0.00 | 0.000 | 0.003 |
| 96 | 7.69 | 0.001 | 0.002 | 6.92 | 7.3 | 0.02 | 0.01 | 0.02 | 0.01 | 0.00 | 0.00 | 0.002 | 0.001 |
| 97 | 16 | 0.001 | 0.001 | 14.4 | 15.2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 |

| **Appendix III: Product Code and Product Name** | |
|---|---|
| HS Code | Name of Product |
| 01 | LIVE ANIMALS |
| 02 | MEAT AND EDIBLE MEAT OFFAL |
| 03 | FISH AND CRUSTACEANS, MOLLUSCS AND OTHER AQUATIC INVERTEBRATES |
| 04 | DAIRY PRODUCE; BIRDS' EGGS; NATURAL HONEY; EDIBLE PRODUCTS OF ANIMAL ORIGIN, NOT ELSEWHERE SPECIFIED OR INCLUDED |
| 05 | LIVE TREES AND OTHER PLANTS; BULBS, ROOTS AND THE LIKE; CUT FLOWERS AND ORNAMENTAL FOLIAGE |
| 06 | EDIBLE VEGETABLES AND CERTAIN ROOTS AND TUBERS |
| 07 | EDIBLE FRUIT AND NUTS; PEEL OF CITRUS FRUIT OR MELONS |
| 08 | COFFEE, TEA, MATÉ AND SPICES |
| 09 | CEREALS |
| 10 | PRODUCTS OF THE MILLING INDUSTRY; MALT; STARCHES; INULIN; WHEAT GLUTEN |
| 11 | OIL SEEDS AND OLEAGINOUS FRUITS; MISCELLANEOUS GRAINS, SEEDS AND FRUIT; INDUSTRIAL OR MEDICINAL PLANTS; STRAW AND FODDER |
| 12 | LAC; GUMS, RESINS AND OTHER VEGETABLE SAPS AND EXTRACTS |
| 13 | VEGETABLE PLAITING MATERIALS; VEGETABLE PRODUCTS NOT ELSEWHERE SPECIFIED OR INCLUDED |
| 14 | ANIMAL OR VEGETABLE FATS AND OILS AND THEIR CLEAVAGE PRODUCTS; PREPARED EDIBLE FATS; ANIMAL OR VEGETABLE WAXES |
| 15 | PREPARATIONS OF MEAT, OF FISH OR OF CRUSTACEANS, MOLLUSCS OR OTHER AQUATIC INVERTEBRATES |
| 16 | SUGARS AND SUGAR CONFECTIONERY |
| 17 | COCOA AND COCOA PREPARATIONS |
| 18 | PREPARATIONS OF CEREALS, FLOUR, STARCH OR MILK; PASTRYCOOKS' PRODUCTS |
| 19 | PREPARATIONS OF VEGETABLES, FRUIT, NUTS OR OTHER PARTS OF PLANTS |
| 20 | MISCELLANEOUS EDIBLE PREPARATIONS |
| 21 | BEVERAGES, SPIRITS AND VINEGAR |
| 22 | RESIDUES AND WASTE FROM THE FOOD INDUSTRIES; PREPARED ANIMAL FODDER |
| 23 | TOBACCO AND MANUFACTURED TOBACCO SUBSTITUTES |
| 24 | SALT; SULPHUR; EARTHS AND STONE; PLASTERING MATERIALS, LIME AND CEMENT |
| 25 | ORES, SLAG AND ASH |

| Appendix III: Product Code and Product Name (Continued) | |
|---|---|
| HS Code | Name of Product |
| 26 | MINERAL FUELS, MINERAL OILS AND PRODUCTS OF THEIR DISTILLATION; BITUMINOUS SUBSTANCES; MINERAL WAXES |
| 27 | INORGANIC CHEMICALS; ORGANIC OR INORGANIC COMPOUNDS OF PRECIOUS METALS, OF RARE-EARTH METALS, OF RADIOACTIVE ELEMENTS OR OF ISOTOPES |
| 28 | ORGANIC CHEMICALS |
| 29 | PHARMACEUTICAL PRODUCTS |
| 30 | FERTILISERS |
| 31 | TANNING OR DYEING EXTRACTS; TANNINS AND THEIR DERIVATIVES; DYES, PIGMENTS AND OTHER COLOURING MATTER; PAINTS AND VARNISHES; PUTTY AND OTHER MASTICS; INKS |
| 32 | ESSENTIAL OILS AND RESINOIDS; PERFUMERY, COSMETIC OR TOILET PREPARATIONS |
| 33 | SOAP, ORGANIC SURFACE-ACTIVE AGENTS, WASHING PREPARATIONS, LUBRICATING PREPARATIONS, ARTIFICIAL WAXES, PREPARED WAXES, POLISHING OR SCOURING PREPARATIONS, CANDLES AND SIMILAR ARTICLES, MODELLING PASTES, 'DENTAL WAXES' AND DENTAL PREPARATION |
| 34 | ALBUMINOIDAL SUBSTANCES; MODIFIED STARCHES; GLUES; ENZYMES |
| 35 | EXPLOSIVES; PYROTECHNIC PRODUCTS; MATCHES; PYROPHORIC ALLOYS; CERTAIN COMBUSTIBLE PREPARATIONS |
| 36 | PHOTOGRAPHIC OR CINEMATOGRAPHIC GOODS |
| 37 | MISCELLANEOUS CHEMICAL PRODUCTS |
| 38 | PLASTICS AND ARTICLES THEREOF |
| 39 | RUBBER AND ARTICLES THEREOF |
| 40 | RAW HIDES AND SKINS (OTHER THAN FURSKINS) AND LEATHER |
| 41 | ARTICLES OF LEATHER; SADDLERY AND HARNESS; TRAVEL GOODS, HANDBAGS AND SIMILAR CONTAINERS; ARTICLES OF ANIMAL GUT (OTHER THAN SILKWORM GUT) |
| 42 | FURSKINS AND ARTIFICIAL FUR; MANUFACTURES THEREOF |
| 43 | WOOD AND ARTICLES OF WOOD; WOOD CHARCOAL |
| 44 | CORK AND ARTICLES OF CORK |
| 45 | MANUFACTURES OF STRAW, OF ESPARTO OR OF OTHER PLAITING MATERIALS; BASKETWARE AND WICKERWORK |
| 46 | PULP OF WOOD OR OF OTHER FIBROUS CELLULOSIC MATERIAL; RECOVERED (WASTE AND SCRAP) PAPER OR PAPERBOARD |

| **Appendix III: Product Code and Product Name (Continued)** | |
|---|---|
| HS Code | Name of Product |
| 48 | PRINTED BOOKS, NEWSPAPERS, PICTURES AND OTHER PRODUCTS OF THE PRINTING INDUSTRY; MANUSCRIPTS, TYPESCRIPTS AND PLANS |
| 49 | SILK |
| 50 | WOOL, FINE OR COARSE ANIMAL HAIR; HORSEHAIR YARN AND WOVEN FABRIC |
| 51 | COTTON |
| 52 | OTHER VEGETABLE TEXTILE FIBRES; PAPER YARN AND WOVEN FABRICS OF PAPER YARN |
| 53 | MAN-MADE FILAMENTS; STRIP AND THE LIKE OF MAN-MADE TEXTILE MATERIALS |
| 54 | MAN-MADE STAPLE FIBRES |
| 55 | WADDING, FELT AND NONWOVENS; SPECIAL YARNS; TWINE, CORDAGE, ROPES AND CABLES AND ARTICLES THEREOF |
| 56 | CARPETS AND OTHER TEXTILE FLOOR COVERINGS |
| 57 | SPECIAL WOVEN FABRICS; TUFTED TEXTILE FABRICS; LACE; TAPESTRIES; TRIMMINGS; EMBROIDERY |
| 58 | IMPREGNATED, COATED, COVERED OR LAMINATED TEXTILE FABRICS; TEXTILE ARTICLES OF A KIND SUITABLE FOR INDUSTRIAL USE |
| 59 | KNITTED OR CROCHETED FABRICS |
| 60 | ARTICLES OF APPAREL AND CLOTHING ACCESSORIES, KNITTED OR CROCHETED |
| 61 | ARTICLES OF APPAREL AND CLOTHING ACCESSORIES, NOT KNITTED OR CROCHETED |
| 62 | OTHER MADE-UP TEXTILE ARTICLES; SETS; WORN CLOTHING AND WORN TEXTILE ARTICLES; RAGS |
| 63 | FOOTWEAR, GAITERS AND THE LIKE; PARTS OF SUCH ARTICLES |
| 64 | HEADGEAR AND PARTS THEREOF |
| 65 | UMBRELLAS, SUN UMBRELLAS, WALKING STICKS, SEAT-STICKS, WHIPS, RIDING-CROPS AND PARTS THEREOF |
| 66 | PREPARED FEATHERS AND DOWN AND ARTICLES MADE OF FEATHERS OR OF DOWN; ARTIFICIAL FLOWERS; ARTICLES OF HUMAN HAIR |
| 67 | ARTICLES OF STONE, PLASTER, CEMENT, ASBESTOS, MICA OR SIMILAR MATERIALS |
| 68 | CERAMIC PRODUCTS |

| Appendix III: Product Code and Product Name (Continued) | |
|---|---|
| HS Code | Name of Product |
| 69 | GLASS AND GLASSWARE |
| 70 | NATURAL OR CULTURED PEARLS, PRECIOUS OR SEMI-PRECIOUS STONES, PRECIOUS METALS, METALS CLAD WITH PRECIOUS METAL, AND ARTICLES THEREOF; IMITATION JEWELLERY; COIN |
| 71 | IRON AND STEEL |
| 72 | ARTICLES OF IRON OR STEEL |
| 73 | COPPER AND ARTICLES THEREOF |
| 74 | NICKEL AND ARTICLES THEREOF |
| 75 | ALUMINIUM AND ARTICLES THEREOF |
| 76 | LEAD AND ARTICLES THEREOF |
| 77 | |
| 78 | ZINC AND ARTICLES THEREOF |
| 79 | TIN AND ARTICLES THEREOF |
| 80 | OTHER BASE METALS; CERMETS; ARTICLES THEREOF |
| 81 | TOOLS, IMPLEMENTS, CUTLERY, SPOONS AND FORKS, OF BASE METAL; PARTS THEREOF OF BASE METAL |
| 82 | MISCELLANEOUS ARTICLES OF BASE METAL |
| 83 | NUCLEAR REACTORS, BOILERS, MACHINERY AND MECHANICAL APPLIANCES; PARTS THEREOF |
| 84 | ELECTRICAL MACHINERY AND EQUIPMENT AND PARTS THEREOF; SOUND RECORDERS AND REPRODUCERS, TELEVISION IMAGE AND SOUND RECORDERS AND REPRODUCERS, AND PARTS AND ACCESSORIES OF SUCH ARTICLES |
| 85 | RAILWAY OR TRAMWAY LOCOMOTIVES, ROLLING STOCK AND PARTS THEREOF; RAILWAY OR TRAMWAY TRACK FIXTURES AND FITTINGS AND PARTS THEREOF; MECHANICAL (INCLUDING ELECTROMECHANICAL) TRAFFIC SIGNALLING EQUIPMENT OF ALL KINDS |
| 86 | VEHICLES OTHER THAN RAILWAY OR TRAMWAY ROLLING STOCK, AND PARTS AND ACCESSORIES THEREOF |
| 87 | AIRCRAFT, SPACECRAFT, AND PARTS THEREOF |
| 88 | SHIPS, BOATS AND FLOATING STRUCTURES |
| 89 | OPTICAL, PHOTOGRAPHIC, CINEMATOGRAPHIC, MEASURING, CHECKING, PRECISION, MEDICAL OR SURGICAL INSTRUMENTS AND APPARATUS; |

| Appendix III: Product Code and Product Name (Continued) | |
|---|---|
| HS Code | Name of Product |
| 90 | CLOCKS AND WATCHES AND PARTS THEREOF |
| 91 | MUSICAL INSTRUMENTS; PARTS AND ACCESSORIES OF SUCH ARTICLES |
| 92 | ARMS AND AMMUNITION; PARTS AND ACCESSORIES THEREOF |
| 93 | FURNITURE; BEDDING, MATTRESSES, MATTRESS SUPPORTS, CUSHIONS AND SIMILAR STUFFED FURNISHINGS; LAMPS AND LIGHTING FITTINGS, NOT ELSEWHERE SPECIFIED OR INCLUDED; ILLUMINATED SIGNS, ILLUMINATED NAMEPLATES AND THE LIKE; PREFABRICATED BUILDINGS |
| 94 | TOYS, GAMES AND SPORTS REQUISITES; PARTS AND ACCESSORIES THEREOF |
| 95 | |
| 96 | MISCELLANEOUS MANUFACTURED ARTICLES |
| 97 | WORKS OF ART, COLLECTORS' PIECES AND ANTIQUES |

| Appendix IV: List of studies on Cost and Benefits of WTO accession and Regional Free Trade Agreements (Continued) | | | | | |
|---|---|---|---|---|---|
| Year | Author | Topic | Type of study | Methodology | Major Findings |
| 2007 | Oxfam | Getting the Right Fundamentals: The early stages of Afghanistan's accession process | Oxfam Briefing Paper | N/A | Afghanistan should not rush to join WTO because immature accession can undermine accession process; extensive privatisation of basic services could lead to an absence of provision in remote regions; and mplementation of WTO agreements could divert Government funds from pressing development challenges such as health care, education, and infrastructure provision. |

| Appendix IV: List of studies on Cost and Benefits of WTO accession and Regional Free Trade Agreements (Continued) | | | | | |
|---|---|---|---|---|---|
| Year | Author | Topic | Type of study | Methodology | Major Findings |
| 2008 | Temple INT'L & Comp.L.J. | WTO Accession at any Cost? Examining the Use of WTO-Plus and Wto-Minus Obligations for Least-Developed Country Applicants | Theoretical/ Legal | N/A | Such commitments makes it harder for LDC applicants to estimate the costs of membership |
| 2007 | Tancrede Voituriez | WTO Entry and Beyond: Accession Benefits and the Cost of Membership. A Preliminary Analysis in the Case of Vietnam | Theoretical/ Legal | N/A | Both benefits and costs of accession for Viet Nam are outstanding; foregone exports due to stringent non tariff barriers is of great concern; some domestically produced products are highly affected |

| Appendix IV: List of studies on Cost and Benefits of WTO accession and Regional Free Trade Agreements (Continued) | | | | | |
|---|---|---|---|---|---|
| Year | Author | Topic | Type of study | Methodology | Major Findings |
| 2006 | Sudip Ranjan Basu | Does WTO accession affect domestic economic policies and institutions? | Empirical | Regression Analysis | the process of obtaining WTO membership, under certain circumstances, can lead to a positive improvement in domestic economic policies and institutions |
| 2006 | Nagesh Kumar And Kevin P. Gallagher | Relevance of 'Policy Space' for Development: Implications for Multilateral Trade Negotiations | Theoretical | Theoretical | The cost of liberalization is high in comparison to its benefits; therefore developing countries require more policy space for their national development goals. |

| Appendix IV: List of studies on Cost and Benefits of WTO accession and Regional Free Trade Agreements (Continued) | | | | | |
|---|---|---|---|---|---|
| Year | Author | Topic | Type of study | Methodology | Major Findings |
| 2005 | Pierre Sauvé | Economic Impact and Social Adjustment Costs of Accession to the World Trade Organization: Cambodia and Nepal | Descriptive, Legal | Descriptive Statistics | It is surely not satisfactory to see LDCs undertake ambitious legislative reform plans without a corresponding assistance plan from donor countries. Most of the reforms that Cambodia and Nepal have agreed to implement require a good deal of expertise. Beyond the difficulties associated with estimating the assuredly high implementation costs of the vast array of WTO rules, it is important to keep in mind the more traditional calculation of customs revenue foregone, which may be a particularly important issue for LDCs, which often have limited sources of revenue |
| 2004 | Thomas Rutherford, David Tarr and Oleksandr Shepotylo | Impact of WTO Accession on Living Standards and Poverty | Empirical | CGE | Accession to the WTO is likely to generate substantial benefits for Russia, the export intensive sectors are likely to experience the greatest expansion, and sectors that export little and that have relatively high import protection are likely to contract in the medium term |

| Appendix IV: List of studies on Cost and Benefits of WTO accession and Regional Free Trade Agreements (Continued) | | | | | |
|---|---|---|---|---|---|
| Year | Author | Topic | Type of study | Methodology | Major Findings |
| 2003 | Zdenek Drabek1 and Marc Bacchetta | Tracing the Effects of WTO Accession on Policy-making in Sovereign States: Preliminary Lessons from the Recent Experience of Transition Countries | Theoretical, Legal | N/A | Third, the costs of the WTO Membership are not negligible. Membership requires fairly large investment into the modernisation and harmonisation of various institutions directly involved in the conduct of foreign trade and investment. The Agreements can help in terms of a better market access and in terms of the recourse to better policy instruments and institutions. |
| 2003 | Ihor Burakovsky Lars Handrich Lutz Hoffmann | Ukraine's WTO Accession: Challenge for Domestic Economic Reforms | Theoretical/ Empirical (Book) | Gravity Model | The likely agricultural conditions of WTO membership for Ukraine would not appear to be very onerous; WTO membership would result in a considerable reduction in the range of policy tools available to agricultural policy-makers in Ukraine. |

| Appendix IV: List of studies on Cost and Benefits of WTO accession and Regional Free Trade Agreements (Continued) | | | | | |
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| Year | Author | Topic | Type of study | Methodology | Major Findings |
| 2001 | Rolf.J. Langhammer and Matthias Lücke | WTO Negotiation and Accession Issues for Vulnerable Economies | Theoretical | Comparative Analysis | The benefits from WTO membership in terms of improved market access for traditional exports are likely to be limited; reform-oriented governments in vulnerable economies can make it more likely that their reforms will be successful; but sovereignty is curtailed, expose companies in vulnerable economies to stronger competition from abroad and negative fiscal costs |
| 1998 | Kym Anderson | Lao PDR and WTO Accession: Implications for Agriculture and Rural Development | Theoretical, Descriptive, Legal | N/A | Economic growth will boost up, agriculture would expand, food output and exports and hence food security would be enhanced, government revenue from trade taxes, contrary to common perceptions, may actually increase rather than decrease, particularly if non-tariff trade barriers are tariffied |