# World Trade Organization (WTO) Analysis Report

SUPPORT FOR LEBANON'S ACCESSION TO THE WORLD TRADE ORGANIZATION (WTO) PROJECT

BOOZ ALLEN HAMILTON

31/12/2011

This publication was produced for review by the United States Agency for International Development.

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CONTRACT NUMBER: EEM-I-00-07-00007-00 TASK ORDER #4

FROM BOOZ ALLEN HAMILTON

TO USAID LEBANON ECONOMIC GROWTH OFFICE

DATE: 31/12/2011

AUTHOR: BOOZ ALLEN HAMILTON AND LEBANESE ECONOMIC ASSOCIATION

**Prepared for:**

**United Stated Agency for International Development (USAID)**

**Prepared by:**


**Booz Allen Hamilton, Inc.**
**Chris Crafton, Ph.D.**
**Mark Gerner**
**Jennifer Li**

**And**

**Lebanese Economic Association**
**Jad Chaaban, Ph.D.**
**Karla Hadad**
**Kanj Hamade, Ph.D.**
**Aiman Mackie**
**Georgina Manok**
**Mario Nasser**
**Mounir Rached, Ph.D.**

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# 1. EXECUTIVE SUMMARY

The U.S. Agency for International Development (USAID) retained Booz Allen Hamilton (Booz Allen) to perform an analysis of the benefits to the country of Lebanon that would result from accession of that country to the World Trade Organization (WTO). The Lebanese Economic Association (LEA) partnered with Booz Allen ("the study team") in this effort. **The results of this analysis indicate that WTO accession will deliver long term net gains or benefits to Lebanon.**

For the analysis, the question of benefits was decomposed into a set of specific questions that were particularly relevant to Lebanon at this stage in their process of accession. Of significant interest was the perception of key stakeholder groups of the potential benefits. Using a model of Lebanon's economy, the study team focused the quantitative analysis on answering the following three questions related to WTO accession:[1]

- **What is the projected impact on Lebanon's economy associated with passage of the new competition law?**
- **What is the projected impact on Lebanon's economy associated with increases in market access?**
- **What is the projected impact on Lebanon's economy associated with a simultaneous passage of the new competition law and increases in market access?**

To guide the analysis, the study team first conducted stakeholder interviews across the industry segments expected to be most highly impacted by accession based on prior research. The concerns and issues that resulted from these interviews guided the creation of the "what if" scenarios for the economic modeling (quantitative analysis). Booz Allen employed a model of Lebanon's economy built by Oxford Economics (OE), Ltd.

Our findings indicate that:

- **Passage of the competition law will increase Lebanon's Gross Domestic Product (GDP)** by approximately 10.7% on average each year between 2012 and 2021. Employment increases slightly by 0.96% on average each year over the same period. Most of this growth in GDP and employment is associated with increases in Domestic Investment (DI) and Foreign Direct Investment (FDI) directly attributable to the new Law.
- Conversely, our results indicate that **increased market access is expected to reduce GDP and employment** but only minimally, less than 1% for each between 2012 and 2021. This slight reduction is associated with increases in the Value Added Tax (VAT) and increases in consumer prices, which reduce

[1] Based on the stakeholder assessment, and a thorough qualitative industry assessment, we decided to focus the quantitative assessment on the competition law and market access requirements of WTO accession because both are projected to have the greatest and most immediate impact to Lebanon's economy with WTO accession. The "new competition law" prohibits a dominant position if it results in an anticompetitive impact on the market. The law therefore does not prohibit a "dominant position" per se, only the abuse of it. With respect to market access, Lebanon is currently in WTO negotiations with Working Party member countries for goods, services, and trade-related aspects of intellectual property (TRIPS). As part of these negotiations, "market access" will require Lebanon to reduce or eliminate tariffs across a number of sectors and goods that will have economic consequences for government revenue, imports and exports, consumption levels, etc.

disposable personal income, consumer spending and domestic production over the time period.

- **Not surprisingly then, simultaneous passage of the competition law and increases in market access does not change the results obtained with passage of the competition law on its own. Changes in import growth** under this combined scenario **are most pronounced in the manufacturing sector**, increasing on an average annual basis by approximately 22%, between 2012 and 2021. This is attributed to increases in DI and FDI used to rebuild and improve domestic infrastructure necessary for industries to transport goods and services to consumers. **Exports remain largely unchanged** over this time period**, with agricultural sector exports the lone exception, decreasing on average annually by approximately 1.9%**, as domestic producers shift their operations to sell more goods domestically in response to increases in personal disposable income and local demand.

Many stakeholders voiced their belief that the only way for Lebanon to access foreign markets is to focus on quality and high value products by promoting a "Lebanese brand," through further development of existing products. Several stakeholders maintained that Lebanese firms have not taken full advantage of its trade agreements, because they don't have access to the necessary infrastructure (roads, ports, etc.) necessary to transport Lebanese products quickly and effectively to exporting markets, while still maintaining product quality. Stakeholders claimed that such improvements require increases in both DI and FDI, but also believe that Lebanon is not an attractive market for large foreign capital investments in industries, aside from tourism and financial services. As such, increases in DI and FDI were not expected in the near term. Moreover, the majority of stakeholders believed that political instability is a major factor discouraging potential FDI in Lebanon.

Based on 25 developing countries that have undergone WTO accession since 1995, FDI can be expected to increase significantly. To test this, a sensitivity analysis was performed to simulate the effects of WTO accession on DI and FDI, with varying levels of political stability. The results indicated that **political stability does not have a significant impact on DI and FDI increases that would be expected after WTO accession**.

The results of this analysis indicate that WTO accession will deliver long term gains to Lebanon. Concerns by stakeholders about reductions in tariffs and increases in Value Added Taxes (VAT) associated with increases in market access from WTO accession are unfounded in the long run. While imports associated with WTO accession are projected to increase, they are attributed to passage of the new competition law, and specifically to increases in FDI and DI. Near term increases in exports are unlikely. Although exports are not projected to increase in the short term, total factor productivity or TFP is projected to increase between 2012 and 2021. In the long term, increases in productivity will result in increased domestic output and exports, improving the Lebanese private sector's global footprint.

Based on this analysis, the upside potential of WTO accession, particularly the passage of the competition law and increases in market access, as indicated by the estimated changes in GDP, employment, disposable personal income, TFP, and investment significantly outweighs any negatives, e.g., deterioration in the current account, short term increases in imports. However, further economic analysis on which specific industry sectors and regions of Lebanon are least equipped for the competition that will result from WTO accession would better prepare both the public and private sectors and help mitigate any short term negative impacts.

## 2. INTRODUCTION

### 2.1 Background

The U.S. Agency for International Development (USAID) retained Booz Allen Hamilton (Booz Allen) to perform an analysis of the benefits to the country of Lebanon that would result from accession of that country to the World Trade Organization (WTO). The Lebanese Economic Association (LEA) partnered with Booz Allen in this effort. The question of benefits was decomposed into a set of specific questions that were particularly relevant to Lebanon at this stage in their process of accession. Of significant interest was the perception of key stakeholder groups as to the potential benefits. It was decided that the areas of focus of the analysis would center on the concerns of these stakeholders.

Countries undergoing WTO accession negotiations must thoroughly examine and often times reform their regulations associated with their bilateral and multilateral trade agreements. In addition, these countries must accept a dispute resolution process aimed at enforcing participants' adherence to WTO agreements. Lebanon has been steadily engaged in these negotiations since 1998[2].

The arguments for and against accession generally echo the international debate on the benefits of globalization. Public opinion in Lebanon on the topic of WTO accession falls into two groups. Many supporters have an idealized notion of membership benefits, assuming it will decrease the cost of living and lead to a much higher economic growth path with better governance and transparency. Supporters also claim that WTO accession will provide a wider variety of available consumer products and promote economic stability. Opponents claim that accession could have a devastating impact on local producers and raise unemployment levels. Several claims on both sides are based on misconceptions about the real nature of WTO membership. These include: 1) the WTO is a free trade organization; 2) the WTO dictates a government's trade policies; 3) the WTO is only concerned with commercial interests and not development; and 4) the WTO is undemocratic, leaving developing countries in the WTO vulnerable and powerless. It was one objective of this analysis to help dispel these misconceptions through the use of data-based analysis using sophisticated economic modeling tools, supplemented with stakeholder interviews to complement the quantitative analyses with qualitative analysis. The stakeholder interviews were conducted prior to the economic modeling so that the questions to be examined by the modeling could be designed with the concerns and issues raised by the stakeholders in mind. The goal was to demonstrate what net benefits, if any, would result from accession based on this analysis.

Booz Allen employed a model of the Lebanon economy developed by Oxford Economics, Ltd., which is described in detail in a later section of this report. We report our findings for the time period 2012 to 2021, making the assumption that WTO accession and the necessary reforms are passed by December 2011.

### 2.2 Structure of the Report

This report begins with an explanation of the methodological approach and the specific study questions that were examined. This is followed in section 4 with an overview of Lebanon's trade liberalization efforts and WTO accession progress. Section 5 presents a description and results from stakeholder interviews that were conducted to collect stakeholders' perceptions, opinions and concerns regarding policy changes that could

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[2] Refer to appendix A for detailed timeline.

result from the WTO accession process. Based on this assessment and additional qualitative research, we provide in section 6 the main industries expected to be most highly impacted as a result of WTO accession. We then provide an overview of the Oxford Economics model and describe the baseline conditions of Lebanon's economy. It is against this baseline that the results of the "what if" scenarios relating to WTO accession are compared. Section 9 contains our methodological approach, including the variables we altered for this analysis and by how much. We then present the impacts to GDP, employment, disposable personal income, imports and exports, and the current account balance of payments. We conclude with a short summary of our major findings and questions for further analyses.

### 2.3 Contributors

The study team brings together international best practices, local engagement and a country-specific macro-econometric model. The team's combined experience and in-depth knowledge of Lebanon provides USAID with the necessary qualitative and quantitative analysis to better understand the impacts of WTO accession on the Lebanese economy.

**Booz Allen** is a leading strategy and management consulting firm serving clients on six continents. Founded in 1914, Booz Allen has over 95 years of experience advising government and private sector clients. We currently have approximately 25,000 employees and annual sales of US$5 billion. With over 80 percent of our work coming from previous clients, we have a proven track record resulting in high levels of client satisfaction.

**Lebanese Economic Association (LEA)** is a non-profit, non-partisan professional association that aims to spread and enhance the public's understanding of the economy and economic conditions in Lebanon, with a view to adding value to the public policy debate. LEA's objectives are to facilitate and promote the exchange of economic research on Lebanon among professional economists, and with the broader public (students, NGOs, Government institutions), foster closer links among academic and non-academic institutions and professionals that are concerned with economic policy issues in Lebanon, and collaborate with international economic associations.

## 3. METHODOLOGICAL APPROACH AND STUDY QUESTIONS

It was one main objective of this analysis to use a data-based analysis comprised of sophisticated economic modeling tools and supplemented with stakeholder interviews to inform as to the expected net benefits of WTO accession. The stakeholder interviews were conducted prior to the data-based economic modeling so that the questions to be examined by the modeling could be designed with the concerns and issues raised by the stakeholders in mind. The analysis followed this multi-tiered approach:

1.) The study team undertook thorough research as a basis upon which to select stakeholder (industry) groups for the interviews and qualitative analysis. The stakeholder groups were chosen from those industry sectors expected to be most significantly impacted WTO accession based on the results of the research. Nine interviews were first conducted to collect stakeholders' perceptions, opinions and concerns regarding policy changes that could result from the WTO accession process. Individual stakeholders were then selected from the multiple sectors and geographical locations to provide comprehensive feedback.

2.) Informed by the interviews, we then performed a micro-level industry evaluation to identify those issues of utmost concern to these stakeholder groups. This industry-level evaluation was coupled with a further literature review to provide a more in-depth assessment of those domestic industries that would be expected to experience the most dramatic impacts from WTO accession.

3.) The results of the interviews and micro-level assessment for development of the study questions were followed by the quantitative analysis to assess the economic impacts of WTO accession on the Lebanese economy as measured by changes to GDP and employment primarily. We used a version of the Oxford Economics global model specifically developed to capture Lebanon's economy to simulate the economic impacts associated with the enactment of the competition law and increases in market access.

Based on the stakeholder assessment, and a thorough qualitative industry assessment, we decided to focus the quantitative assessment on the competition law and market access because both are projected to have the greatest and most immediate impact to Lebanon's economy with WTO accession. The "new competition law" prohibits a dominant position if it results in an anticompetitive impact on the market. The law therefore does not prohibit a "dominant position" per se, only the abuse of it. With respect to mmarket access, Lebanon is currently in WTO negotiations with Working Party member countries for goods, services, and trade-related aspects of intellectual property (TRIPS). As part of these negotiations, "market access" will require Lebanon to reduce or eliminate tariffs across a number of sectors and goods that will have economic consequences for government revenue, imports and exports, consumption levels, etc.

The above three steps led to the formulation of 3 specific study questions that we examined with the economic model:

- What is the projected economic impact associated with passage of the new competition law in Lebanon?
- What is the projected economic impact associated with increases in market access in Lebanon?
- What is the projected economic impact associated with simultaneous passage of the new competition law and increases in market access?

Through the use of both stakeholder engagement and interviews coupled with the quantitative results produced with the economic model, one goal was to raise public awareness of the potential impacts of WTO accession and assist policy makers in better understanding the economic implications associated with WTO accession. The outcome of this analysis was intended to enrich the debate within and between the private and public sectors through outreach efforts to both public and policy communities.

## 4. LEBANON'S ACCESSION PROCESS TO THE WTO

### 4.1 Overview of Lebanon's Trade Liberalization and WTO Negotiation Progress

The pace of Lebanon's WTO accession has been relatively slow, lagging five years behind the average period recorded for other countries acceding to the WTO. This delay can be attributed to political instability, a lack of stakeholder buy-in and technical complications arising from the negotiation process. While the Lebanese Government remains officially committed to WTO accession, there has been little if any observable consensus as to the role of the WTO specifically in meeting Lebanon's economic reform agenda that was to be pursued as part of the overall post-2006 war recovery and development initiatives. A host of national, regional and global issues have taken precedence over the WTO agenda, and by extension, economic reform. Instead, WTO-accession related laws and regulations have been introduced under different agendas during the subsequent governments since the Paris III Conference held in January 2007.

Despite Lebanon's slow progress in completing WTO membership requirements, 10 out of the total 19 laws have already been enacted. However, nine laws are still pending and of these outstanding laws the competition law and market access are two chosen for this analysis. These two pending requirements were chosen based on the stakeholder assessments, and a thorough qualitative industry assessment. The quantitative assessment is focused on the competition law and market access because these were both projected to have the greatest and most immediate impacts to Lebanon's economy associated with WTO accession.

The **competition law** prohibits a dominant position if it engages in any act with an anticompetitive impact on the market; therefore, the law does not prohibit dominant position, but only the abuse of it. Since WTO membership will only govern the abuse of anticompetitive actions, increased competition from additional trading partners with WTO members is an area of concern for many Lebanese producers. As such, the competition law draft was approved by the Council of Ministers and sent to parliament on the 27 October, 2009 where it is still awaiting final decision.

With respect to **market access**, Lebanon is currently holding WTO negotiations related to goods, services, and trade related aspects of intellectual property (TRIPS) with Working Party member countries. As part of these negotiations Lebanon will ultimately reduce or eliminate tariffs across a number of sectors and goods that will have economic consequences for government revenue, imports and exports, consumption levels, etc.

Lebanon's path towards regional and global economic integration thus far has been marked by the country's membership in the Greater Arab Free Trade Agreement (GAFTA), European Union Association Agreement, European Free Trade Association (EFTA), and the Higher Coordination Council with Jordan, Syria, and Turkey. In terms of access to goods in these agreements, Lebanon has met many of the requests for further cuts in both its agricultural and non-agricultural tariff bindings. There are several outstanding issues from these agreements that will have to be settled for Lebanon to be admitted to the WTO, including tariff rates for the most protected goods, the majority of which are agricultural products.

In spite of the trade liberalization measures that resulted from these agreements, there have not been accompanying public initiatives to either boost domestic competitiveness or to help industries transition to a new tariff regime, especially critical for the agricultural and industrial sectors. As such, domestic enterprises now approach economic integration initiatives with some trepidation. In addition, the Lebanese public perceives a limited distinction between "free trade" and "trade integration" initiatives. While free trade removes all barriers to trade, such as those agreements similar to GAFTA, trade integration or preferential trade (such as membership in the WTO) is an effort to increase a country's participation in world markets by reducing some barriers while keeping in place the barriers to strategic industries or industries assessed to be most sensitive to international completion. Nevertheless, Lebanese producers are gradually becoming more aware of the opportunities offered by the different trade agreements. Significant efforts have been made to comply with international production standards and to look for international market opportunities.

## 5. STAKEHOLDER CONSULTATION

### 5.1 Methodology

The agriculture, agro-industry, maritime services, trade and manufacturing industries were identified through a literature review as those industry sectors most likely to be affected by accession. Table 1 below provides a list of the stakeholders interviewed. The interviewee guideline and a detailed summary of each of the stakeholder's perceptions and concerns regarding WTO accession are included in Appendix B of this report

**Table 1: Stakeholders Interviewed**

| Stakeholder | Industry | Region |
|---|---|---|
| **The Rene Moawad Foundation** | Agricultural development | *Lebanese rural areas* |
| **YMCA** | Agricultural development | *Lebanese rural areas* |
| **Import/Export company** | Import/Export | *South Lebanon* |
| **Dairy producer** | Agro-industry | *Bekaa region* |
| **Canned food producer** | Agro-Industry | *Mount Lebanon* |
| **Producer of household, institutional and personal care products** | Manufacturing | *Mount Lebanon* |
| **Furniture manufacturer** | Manufacturing | *Tripoli* |
| **Maritime Shipment company** | Maritime Services | *Tripoli* |
| **The American Lebanese Chamber of Commerce (AMCHAM)** | | |
| **The Chamber of Commerce, Industry and Agriculture for Beirut and Mount Lebanon (CCIABML)** | | |

The study team established an open-ended interview framework to provide stakeholders flexibility to discuss issues rather than using a question-answer format for the sessions. This framework also allowed for a considerable amount of flexibility with which interviewers could guide the discussion to ensure that the topics covered were the most relevant to each stakeholder. Key issues, concerns and misconceptions regarding WTO accession were extracted from the interviews, establishing a well-rounded pool of data that was used to inform the quantitative and overall final assessment.

### 5.2 Stakeholder Perceptions of WTO Accession

The information obtained from the stakeholder interviews was both enriching and illuminating with regard to what the stakeholders understand is needed to move Lebanon forward with sustained economic growth. Most stakeholders did not view WTO accession as a major concern, suggesting they have already "adjusted" to free trade regulations and policies through GAFTA and the EU-Lebanon Association Agreement. These existing trade agreements cover most of Lebanon's trading partners. Furthermore, Lebanese businesses are accustomed to very low customs duties with the exception of a few industries, such as the furniture industry whose major trading partners fall outside of the GAFTA and EU regions. In general, Lebanon relies heavily on imports with average customs duties less than 5%. Only 15% of all imported goods in Lebanon are subject to higher tariffs that fall between 20% and 35%. These imported goods include the furniture and agricultural related industries.

Instead, most stakeholders voiced belief that the WTO framework would further regulate trade by:

- Setting standards and regulations that will necessitate the improvement of local production such as enhanced food safety standards and quality, as well as protect the local market from non-conforming imports;
- Implementing the (already enacted) anti-dumping law (officially, the Law of Protection of National Production and its implementing decree), a main concern of Lebanese producers;
- Prohibiting monopolization and exclusivity; Lebanese markets are populated with firms that own exclusive rights to certain imported commodities, thereby significantly limiting price and product competition in these markets.

While many Lebanese producers are already exporting abroad, imposing technical standards, such as labels and certifications of food products, will ultimately help improve the quality of and add value to domestically produced goods. But most stakeholders recognized that such production standards could require added costs in the short run as firms are forced to comply with labeling and certifications.

Since increasing the quality standard of products is a main concern for Lebanese producers[3], these producers believed they should address these issues regardless of whether Lebanon becomes a member of the WTO or not. Many stakeholders voiced their beliefs that the only way for Lebanon to access foreign markets is to focus on quality and high value products and that this can be achieved by promoting a "Lebanese brand," through the specialization of and continued innovation in existing products.

Several stakeholders maintained that Lebanese firms have not taken full advantage of its trade agreements. With the exception of NGO supported agro-food producers, few have seized exporting opportunities to Europe. Several stakeholders raised this issue in the context of "lacking a trade infrastructure," which needs to be improved in order to enable exports to European markets. By this they mean the roads, ports, etc., necessary to transport Lebanese products quickly and effectively to exporting markets, while maintaining their quality.

Several stakeholders commented that Lebanon is not an attractive market for large foreign capital investments in industries, aside from tourism and financial services. However, opinions diverged when discussing the impact of WTO accession on foreign investment, as many were not convinced that membership will lead to an increase in either DI or FDI in their respective sectors. Several, including the Chamber of

[3]The WTO does not enforce global standards. Instead, it leaves each country to decide on its own level of quality standards they want to adopt. As such, Lebanese industry can collectively decide to set a relatively low level of quality standards, which applies equally to products from other countries (national treatment principle). If this is the case, Lebanese industry will "lose" out when they try to access foreign markets with higher quality standards. On the other hand, trading partners can intentionally place higher standards on Lebanese products and succeed in doing so as there is no recourse to dispute settlement that would be afforded to Lebanese producers upon Lebanon's accession to the WTO.

Commerce, disagreed. The qualitative research component of this analysis specifically addressed this issue and found that both DI and FDI increase as a result of WTO accession based on the experience of other countries' accession. The economic modeling component was able to measure the impact that the potential increases in FDI and DI are estimated to have on Lebanon's economy.

The stakeholders interviewed were also in consensus regarding market access and barriers to entry that foreign markets impose as major obstacles for local producers. Moreover, the majority of stakeholders stated their belief that political instability is a major factor discouraging potential FDI in Lebanon. Accordingly, a sensitivity analysis was performed to simulate the effects of WTO accession on DI and FDI, with varying levels of political stability.

## 6. INDUSTRIES IMPACTED

### 6.1 Agriculture

**Comment on Sector:** The fruit and vegetable subsectors constitute the core of Lebanese agriculture. Currently the government encourages agriculture exports through the implementation of the "Plan on the Development of Agricultural Export Support (Export Plus 2007-2011)," which provides subsidies to exporting producers.

**Impact from WTO Accession and Trade Liberalization**: The agricultural sector was highly impacted by changes in trade policies implemented in the framework of Lebanon's agreements with the EU and the Arab League. The deletion of most of the "agricultural calendar"[4] regulating and imposing seasonal tariffs on imports of agricultural products according to Lebanese harvest season (1997-2000) has increased the vulnerability of vegetable producers to foreign competition. As such, Lebanese farmers were unable to compete with lower cost products imported from neighboring countries, mainly Syria, Jordan and Egypt. It was stated that a further reduction in tariffs under the Taysir Agreement, the EU-Lebanon Association Agreement, or WTO accession could potentially increase the vulnerability of primary and processed goods producers[5].

Relative to targeted export markets, producers can still benefit from the unique Lebanese ecological climate and could eventually focus their production on those goods giving them a comparative advantage. While the sector may appear disadvantaged on the outset, a redirection of resources could allow the sector to reap the benefits of trade liberalization. The agricultural sector has the potential to seize export opportunities offered by Lebanon's trade agreements – including accession to the WTO. Support by the Lebanese government could result in an increase in the Ministry of Agriculture's share in the national budget. To be effective, however, it will also require significant investment in production processes and infrastructure, which many farmers are reticent to make given their perception of political instability within Lebanon.

A change in trade conditions, such as tariff and non-tariff measures, could lead – in the long term – to a restructuring of the sector towards export-oriented activities and

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[4] The "calendar" has been maintained for 10 products and is renewed based on annual request by the Lebanese government to the Arab League's Economic and Social Council.

[5] Hamade, K., Malorgio, G. and Midmore, "Combining Quantitative and Qualitative Approaches to Rural Development Analysis: The Case of Agriculture Intensification in Lebanon" Agricultural Economics Society Conference, Warwick 18-21 April 2011.

Lebanon. Ministry of Agriculture. Lebanon Agricultural Strategy Beirut: Ministry of Agriculture, 2009.

higher value-added production, as well as greater integration with the agro-industry. Steps are currently being taken by individuals in the private and public sectors to usher in such a transition; however integration also requires significant investment on the part of the private sector that could in fact be ushered in through FDI as a result of WTO accession.

Figure 1 below provides insights from the Rene Moawad Foundation (RMF) and the Young Men's Christian Association's (YMCA Lebanon), two main NGOs working with farmers in Lebanon.

**Figure 1: Insights from Stakeholder Interviews: RMF and YMCA Lebanon**

RMF and YMCA Lebanon have made similar efforts towards promoting development among rural and small-scale producers. Accordingly, they share much of the same approach to mitigating the potential negative impacts of WTO accession. Their work is a direct response to the bitter-sweet reality of the impact of trade liberalization on the Lebanese agricultural sector: liberalized trade has increased competition from imports while also opening new export opportunities.

RMF and YMCA Lebanon regard Lebanon's accession to the WTO rather negatively. They believe that Lebanese farmers will not be able to compete on price and quantity, and that accession will be detrimental in the short run. Fragmentation (with multiple small-scale farmers) and high costs of production are the main contributing factors to the Lebanese agriculture sector's weak capacity to compete. The lack of governmental support to local farmers further inhibits their ability to compete against subsidized agriculture in neighboring Arab and European countries, and it is unlikely that member countries of the WTO will be removing such subsidies in the near future. RMF and YMCA Lebanon believe that the Lebanese agricultural sector did not take advantage of existing free trade agreements such as the Taysir and Association Agreements. Despite the two organizations' efforts to educate rural, small-scale producers on standards, efficient production and the need for investment and innovation, Lebanese farmers are not yet ready to fulfill the implicit requirements – producing standardized products in exportable quantities. However, they view specialization as one possible mitigating option.

Political instability was raised as a discouraging factor. RMF and YMCA indicated that farmers are reticent to make investments that are required to adopt innovative methods. Farmers often opt to settle for their current farming practices rather than take on what they feel is a risky investment given the minimal economic guarantees or security.

### 6.2 Agro-industry

**Comment on Sector:** Lebanon's agro-industry, which is defined as those industries providing the supply, processing, packing, and distribution of farm products, was historically a competitive sector, relying particularly on exports to Lebanese expatriates in the Arab Gulf and beyond. Many of these goods are comprised of food products that still benefit from relatively high protection tariffs, such as olive oil. Another example is the dairy sector, which possesses export potential and already benefits from a strong presence in the local market.

There exist both implicit and explicit national policies to protect a number of Lebanese traditional food products. This comes under the umbrella of the proposed draft Geographical Indications Law[6], and the related standards. The Agreement to Facilitate

[6]Proposed initiatives include establishing multilateral geographical indications (Place names used to identify products which have a quality, reputation, or characteristic that is attributable to its geographic origin or association; ex. "Champagne", "Roquefort") for wines and spirits, and applying the increased level of protection for wines and spirits to other products.

and Develop Trade among Arab States (Taysir Agreements, or GAFTA) signed in 1982 has been considered by agro-industrials as readily available trade opportunities. As part of these agreements, agricultural and animal products were exempted from equivalent Arab customs duties and taxes, and non-tariff barriers imposed on imports. In the last decade, several investments have been made in the sector focusing on the local market, on import substitution, and investments to branch out into export markets where strong demand potential exists.

**Impact from WTO accession and Trade Liberalization:** Agro-industrial enterprises place importance on enhancing quality standards, and developing the quality and the image of Lebanese food, as it is seen as a means for strengthening their regional competitive advantage. Figure 2, below, presents the opinion of two large Lebanese agro-industrials on competitiveness and WTO accession.

**Figure 2: Insights from Stakeholder Interviews: Agro-Industrials**

**Dairy Production**

Interviewed stakeholders stated that WTO accession will have limited impact on local dairy producers. The main assurance for local dairy producers' competitive ability against foreign players is consumer loyalty for their traditional product produced by Lebanese companies.

Imports of similar products may sometimes be of better quality, but they are still not sufficiently 'traditional' to meet local tastes. As such, they do not pose effective competition for Lebanese producers, who target consumers seeking authenticity. Short shelf life is a natural source of protection for the fresh dairy sector. Otherwise, for non-traditional, and longer life products (cheese, yogurt, UHT milk), the only way for Lebanese producers to remain competitive is to increase quality, which necessitates further investment. This is increasingly evident in the local market, with the introduction of a vast range of products targeting niche consumer tastes. However, ongoing investment costs accompanied by the already high cost of production reduce the competitiveness of local versus imported dairy products.

An expanding real estate sector is also posing limits on the potential for industries to expand, especially the dairy business, which requires space. Therefore, even if the funding was provided, expansion is physically restricted. Indeed, ability and knowledge are in abundance and capability to innovate is not the problem. [Lebanese educational institutions cultivate a market of highly qualified and skilled labor.]. Dairy producers contend that one possible way for Lebanon to expand exports is through processing imported raw materials (fresh milk) from neighboring countries (mainly Syria), and then re-export to foreign markets.

**Food Conserves**

According to the interviewed stakeholder, the situation for food conserves (or preserved food) is similar to that of dairy production; imports are able to compete in the local markets due to their relatively lower prices. Local production faces high production costs, and the potential to expand is restricted by the availability of space. However, Lebanese agro-industrials survive in the market because of the strong demand (consumer loyalty) for "traditional Lebanese" food products which qualifies for a premium price. Accession to the WTO implies that producers have to delve further into product specialization and promotion of products with the higher value added of Lebanese agro-industrials.

Today, compliance with standards, including export testing and certifications, constitute significant additional costs for export activity. Lebanon lacks certified laboratories and these costs related to standards present a barrier to accessing certain markets.

### 6.3 Furniture Manufacturing

**Comment on Sector:** Furniture manufacturing is mainly concentrated in "industrial districts" (ad hoc industrial zones) in Tripoli and Beirut's southern suburbs. It is a relatively "artisan" sub-sector, employing individuals primarily from low income and poor households. This sub-sector is protected by relatively high tariffs and may have difficulty in adapting to trade liberalization.

**Impact from WTO Accession and Trade Liberalization:** Lebanese furniture manufacturers are concerned that Lebanon's accession to the WTO will be accompanied by a reduction in tariffs on furniture. While current tariffs on imported furniture are already set at 30%, furniture producers still have difficulties competing with imported furniture from Malaysia, China, and other countries with considerably lower production costs. This was demonstrated in a recent petition for safeguards protection filed with Lebanon's Trade Remedies Investigative Authority. If WTO accession maintains tariffs at *status quo* rates, Lebanese companies could remain competitive by relying on orders for high value and custom products such as hand carved wooden furniture.

Often, custom-made furniture orders constitute an important share of a company's turnover and offers higher profit margins. Many of these products are exported to Arab countries and to Europe. With the ongoing political instability in the region, the small family businesses that dominate the sector are experiencing a reduction in demand and revenues as a result. Furthermore, the political situation in Lebanon and Tripoli, in particular where the industry has strong bases, poses an obstacle for further investment. Business owners maintain they are reluctant to provide new investment amidst the perceived uncertain political conditions.

## 6.4 Services

The Lebanese government has reached a limit on granting additional concessions in services, especially for those considered by the WTO terms to be modes of supply 3 (commercial presence of the foreign establishment)[7] and 4 (presence of foreign natural persons on Lebanon's territory)[8]. This is evidenced by the lack of new offers or responses to government requests in recent years. Several issues still remain in the legal and maritime services sectors in particular, driven by requests from both the EU and the US, and other countries with vested interests (e.g., Japan, Australia). Trade negotiators have found it challenging to achieve domestic policy consensus with key syndicates (Beirut Bar Association) and ministries (e.g., Ministry of Transport and Public Works) maintaining their preference for status quo positions.[9]

### 6.4.1 Trade

**Comment on Sector:** The trade sector represents approximately 23% of GDP and employs approximately 22% of the labor force[10].

**Impact from WTO Accession and Trade Liberalization:** WTO accession is projected to lead to a diversification of export and import markets, opening new opportunities for Lebanese agricultural and manufacturing sectors.

WTO accession could lead to an increase in trading partners by including countries that do not currently have free or facilitated trade agreements with Lebanon and that

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[7] Foreign-owned and controlled entities establish presence through a locally-established affiliate, subsidiary, or representative office. Examples include medical services provided by a foreign-owned hospital, or banking services supplied by a foreign bank subsidiary branch.

[8] Occurs when foreign nationals supply direct service to a local consume, e.g., the temporary foreign presence of an architect moving abroad to supervise construction work.

[9] Lebanon. Ministry of Economy and Trade. http://www.economy.gov.lb/index.php/home/2

[10] Lebanon. Ministry of Social Affairs Living Condition Survey and Lebanese National Economic Accounts. Beirut: Ministry of Social Affairs,2005.

could allow the import of cheaper commodities from countries that were subject to high tariff rates prior to WTO accession. Furthermore, cheaper imported intermediate production inputs are also beneficial to domestic producers, as it helps lower production costs and thus improve relative competitiveness.

Legislation adopted in the framework of WTO accession (International Trade and Licensing Law, competition law, et. al.) can lead to a re-organization of the sector reducing monopoly status and allowing the entry of local and international firms.

### 6.4.2 Freight Transport Services

**Comment on Sector:** Lebanon ranks among the highest countries in the World Bank's Logistics Performance Index for the Middle East, ahead of Egypt, Syria and Turkey. Further improvements in the efficiency of maritime transport will lead to positive spillover effects into nearly every other sector including private investment, job creation, productivity and government revenue from the increases in port services. This is expected to be accompanied by increases in infrastructure investments (outside of ports), including roads, etc., to improve the larger infrastructure network in Lebanon.

**Impact from WTO Accession and Trade Liberalization:** Current law dictates that to participate in freight transport services, a foreign company must enter into a partnership with a local party, with the foreign company's share not exceeding 50% of the investment. Removing restrictions on foreign firms is projected to encourage more competition in the market. Furthermore, granting foreign investors' freight forwarding licenses will be an additional incentive to the reconsideration of Beirut as a regional transportation hub for their products.

### 6.4.3 Legal Services

**Comment on Sector:** Currently, a practicing lawyer in Lebanon must hold Lebanese nationality and complete three additional training requirements after obtaining a law degree. Only if these criteria are fulfilled may the candidate apply for national recognition of legal status by one of the two existing Lebanese Bar Associations. As such, these restrictions limit the possibility of any foreign legal person or firm to practice in Lebanon, even when dealing with international law related issues.

Since 2004, the EU, United States and Australia have put pressure on the Lebanese government to allow non-Lebanese lawyers to practice foreign and international law within Lebanon. To compromise on this issue, Lebanon has removed all restrictions regarding consulting with a non-Lebanese legal entity as long as the communication taking place is not through face-to-face meetings on Lebanese soil.

**Impact from WTO Accession and Trade Liberalization:** Liberalization of the Lebanese legal service sector has been subject to years of intense debate. Parties supporting pro-liberalization argue that since domestic firms can already hire international law firms not based in Lebanon, and since graduating law students often travel to work abroad, allowing a physical presence in Lebanon should not make a significant difference. They argue that potential benefits to a liberalized legal service sector could include:

- Updating the current law to require foreign law firms operating in Lebanon to employ Lebanese lawyers may create opportunities for local lawyers to expand their capabilities by engaging in foreign and international law specialization;
- Competition between foreign and local firms can actually work in favor the local market as Lebanese firms are already considered highly qualified and competitive;

- Cooperating with foreign lawyers could modernize national methods and processes, education and training regimes, ultimately expanding the capacities of Lebanese law services and render them more competitive in the international law arena.

Those opposing liberalization believe that since these services already exist, a physical presence would only bring additional competition to an already narrow market. They believe that there are sufficient numbers of law students and young lawyers who seek international exposure that are travelling to prestigious international institutions to obtain the necessary education and experience. These individuals can bring this experience back to Lebanon and satisfy the market's need for experts in international and foreign law. Furthermore, they believe that instead of offering opportunities for local talent under WTO accession, foreign firms will focus instead on satisfying whatever minimum quota is set for Lebanese employees.

#### 6.4.4 Public Administration and Privatization

**Comment on Sector:** Currently, the public administration sector represents 10% of GDP and employs 13% of the work force, equivalent to 25% of the monthly waged work force.[11]

**Impact of WTO Accession/Trade Liberalization:** Given the relative size of this sector, the impacts of WTO accession could result in significant changes to the Lebanese economy. Some believe that WTO accession will reduce customs revenues and may push the government to look for alternative tax revenues (e.g., the VAT). Any potential benefits associated with trade liberalization could thus be diminished by the tax increases.

On the other hand, the WTO accession process will speed up legislative and administrative reforms through a consolidation of standards as dictated by WTO membership requirements. This has the potential of leading to improvements in indicators such as government effectiveness, control of corruption and rule of law, and strengthening local and foreign investors' trust in the Lebanese economy. These reforms have the potential of leading to a reduction in public employees, in turn reducing the ability of the government to use public employment as an indirect (and arguably ineffective) tool for redistributing income.

Privatization of publicly owned entities may present opportunities for foreign investment without the associated link to the Lebanese government viewed as a high risk factor for many investors. For example, privatization of electricity and the telecom sectors could present opportunities for foreign investment. Figure 3, below, provides more discussion of this issue.

[11] Lebanon. Ministry of Social Affairs. Living Condition Survey and Lebanese National Economic Accounts. Beirut: Ministry of Social Affairs, 2005.

**Figure 3: Privatization and WTO Accession**

Lebanon's Working Party (WP) has identified privatization of government (semi)monopolies in several sectors to be an important reform priority. Key sectors include telecommunication, electricity, ports, and refineries. The telecom privatization plan is comprised of three stages: (1) establishment of an independent regulatory authority, (2) the sale of assets in the mobile sector (including, if necessary, the enactment of laws authorizing the sale of mobile sector's assets) and (3) the incorporation of the fixed line operator, Liban Telecom. The first step has been completed and the last two are on the verge of completion. The Higher Privatization Council has finalized contracts with international firms for the sale of mobile assets and the creation and corporatization of Liban Telecom. The government, however, still remains hesitant with regard to the pace and process for privatizing the sector.

In sectors other than telecom, progress has occurred within the privatization of electricity, ports and refineries. Most recently, the government submitted the electricity draft law to parliament requesting an increase in national power capacity. Privatization has been raised primarily in the context of allowing non-government owned power plants to feed into the electricity grid. However, this will depend on the implementation modality that will be adopted to build and operate the additional capacity. Parliamentary deliberations are now underway, but this has come after much delay.

### 6.4.5 Summary of Stakeholder Input

The majority of stakeholders interviewed do not view WTO accession as a major concern. Industry sectors are already dealing with free trade regulations and policies through GAFTA and the EU-Lebanon Association Agreement, which cover most of Lebanon's trading partners. Nonetheless, many stakeholders believe not all benefits from these trade agreements are being taken advantage of and lack of access to capital investments, outside of the tourism and financial services sectors, is a significant detriment to growth.

Specifically, market access and competition were the primary issues voiced by stakeholders as areas of concern. Those industries associated with manufacturing, agriculture, agro-industry and furniture believe the requirements associated with WTO accession will increase their cost of doing business through reductions in the current tariff structure. However, the stakeholders place importance on enhancing quality standards and strengthening their competitive advantage through marketing their goods as "luxury products local to Lebanon." Given more public support to both the general trade infrastructure, and industry-specific needs (financing, standards-setting and certification, transfer of knowledge, etc.), many service related industries view WTO accession requirements as a means for improving the sector through better standards and the quality of services.

Both manufacturing and service-related sectors maintain that political instability is a major factor discouraging potential FDI and inhibiting much needed access to capital. To address these concerns, a sensitivity analysis was performed to simulate the effects of WTO accession on DI and FDI, with varying levels of political stability. The results are presented below.

## 7. THE OXFORD ECONOMICS (OE) MODEL

The study team used a model of the Lebanon economy developed by the firm Oxford Economics, Ltd. This section presents the main characteristics of the model. Additional detail can be found in Appendix D.

The Oxford Economics (OE) model[12] takes an approach between what econometricians call a "statistical vector auto-regression (VAR) model" at one end of the macro-economic modeling spectrum, and a computable general equilibrium (CGE) model on the other end. This means simply that the OE model forecasts well both short-run behavior and long-run relationships by integration of the statistical components of the model. The main advantage of the OE model is that it provides both a forecasting tool and a tool for policy analysis.

The "core" of Oxford's suite of models is 44 robust country models, plus a number of more limited models, producing estimates of key economic indicators only, such as Gross Domestic Product (GDP) and employment, for another 33 countries. There are also six trading blocs of countries to provide complete global coverage. The country models are fully interlinked via trade, prices, exchange rates and interest rates, with the blocs completing "all-the-world" coverage. Model variables are divided into demand and supply, core and non-core. Coverage of core variables is standard across all country models; non-core coverage is determined by data availability and country-specific requirements. Core demand variables include all the aggregate expenditure components, at constant and current prices, monetary policy variables and financial variables[13]. The demand non-core includes disaggregated consumption and investment, as well as important indicator variables such as retail sales. Core supply consists of variables determining the natural levels of output, unemployment and real wages. Prices are also disaggregated in the core supply block. Non-core supply disaggregates employment and nominal earnings. Separate blocks build up the government, personal and corporate sector flow accounts, while the G7 energy model is also available in certain country models.

The model for a country comes pre-loaded with historical data and a baseline forecast out approximately ten years. The number of years of the forecast is dependent upon the availability of historical data and expectations concerning the volatility of the country's economy as well as the global economy. Data sources include the World Bank, the Asia Development Bank, in-country sources, and others. It is important to note that all data used for the baseline forecast can be both verified and changed if needed or desired.

Each policy or spending decision that one wants to evaluate using the model is put through the following steps:

1. The policy or spending option is deconstructed into its major cost or spending components;
2. Each component is "mapped" to a particular input variable in the model and the "baseline value" of that variable is changed (increased or decreased) by the cost or spending change reflective of the prospective policy or spending change;
3. The model is "run" with the new input values to produce a new forecast; and
4. The new forecast of the economy is compared to the original baseline forecast so that differences in the values for GDP, employment,

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[12] This section contains information provided by Oxford Economics both on their website and in discussions with Booz Allen Hamilton, in addition to other published source materials.

Oxford Economics. 1981-2012. http://www.oxfordeconomics.com/

[13] While the OE model(s) contain monetary and financial variables, they are not "financial" models meaning that analyses of public financial management alternatives are limited.

government revenues, etc., between the baseline forecast and the new forecast can be evaluated. These differences constitute the "impacts" to the economy that would be expected to result from the policy or spending change.

The OE model was selected for this analysis because of the reputation of the model in terms of accuracy, its widespread use globally, and it's interconnectedness with similar models for many other economies in the vendor's suite of models, thereby facilitating analysis of exports and imports.

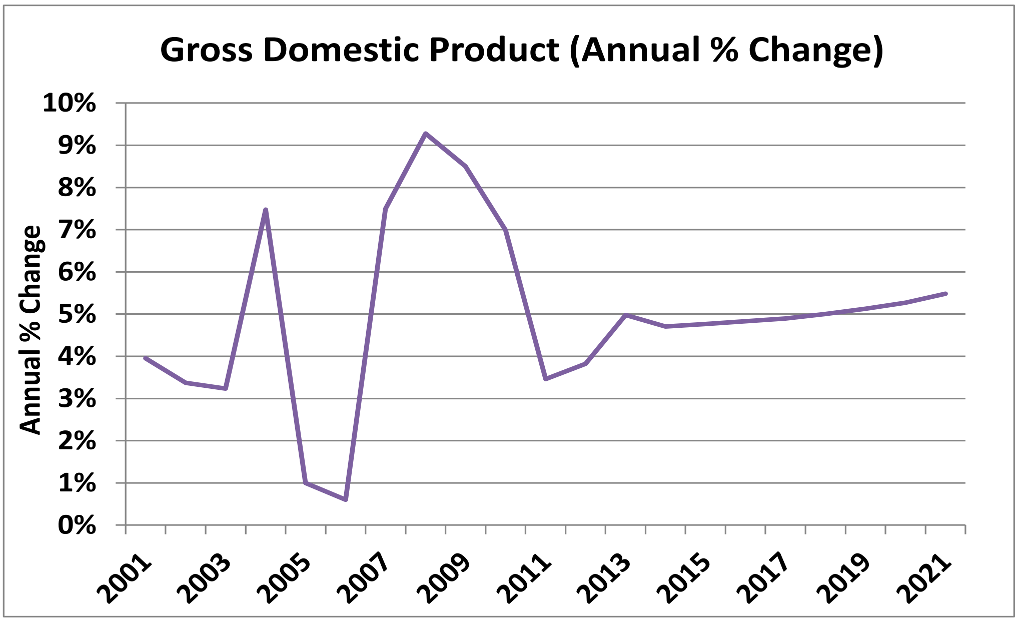
## 8. OXFORD ECONOMICS MODEL BASELINE FORECAST FOR THE LEBANESE ECONOMY

The basis of the analysis of Lebanon's accession to the WTO using the OE model is the comparison of the "what if" accession scenarios to the baseline forecast produced by the model. The OE forecast of the Lebanese economy is based on variant levels of GDP, interest rates, foreign direct investment, domestic investment, employment, customs and excise duties, value added tax (VAT) rates, balance of payments, imports, exports, etc. between the years 2011-2021. The current baseline forecast does not include within its forecast any assumptions associated with Lebanon's WTO accession. As an example, Customs and Excise Duties and Value Added Taxes are not projected to change going forward between 2012 and 2021 from the current levels seen in 2011. Overall, the outlook for Lebanon's economy as projected by the baseline forecast in the OE model is very positive with all leading indicators trending upward (improving) over the study period.

### 8.1 Gross Domestic Product (GDP)

Lebanon's GDP has been volatile since 2000, but is projected to stabilize and grow at a positive rate between 2011 and 2021. Significant increases between 2002 and 2006 are in line with the economic boom that impacted the global economy. A significant drop in 2006 is attributed specifically to the war with Israel, with annual GDP growth rebounding through the end of 2007 and into early 2008. Lebanon's annual GDP growth has since decreased significantly as a result of the economic recession attributed to the global financial crisis between 2007 and 2009. Although the Lebanese financial industry is considered to be one of the most regulated financial sectors in the world, the Lebanese economy was impacted by decreases in global demand and reductions in tourism. Going forward, the OE model takes a conservative view on growth with the baseline forecast projecting Lebanon's GDP to increase by approximately 26.5 LBP trillion (approximately $17 billion) on a nominal basis, between 2011 and 2021. This projection translates to a healthy average annual GDP growth rate of 4.8 %.

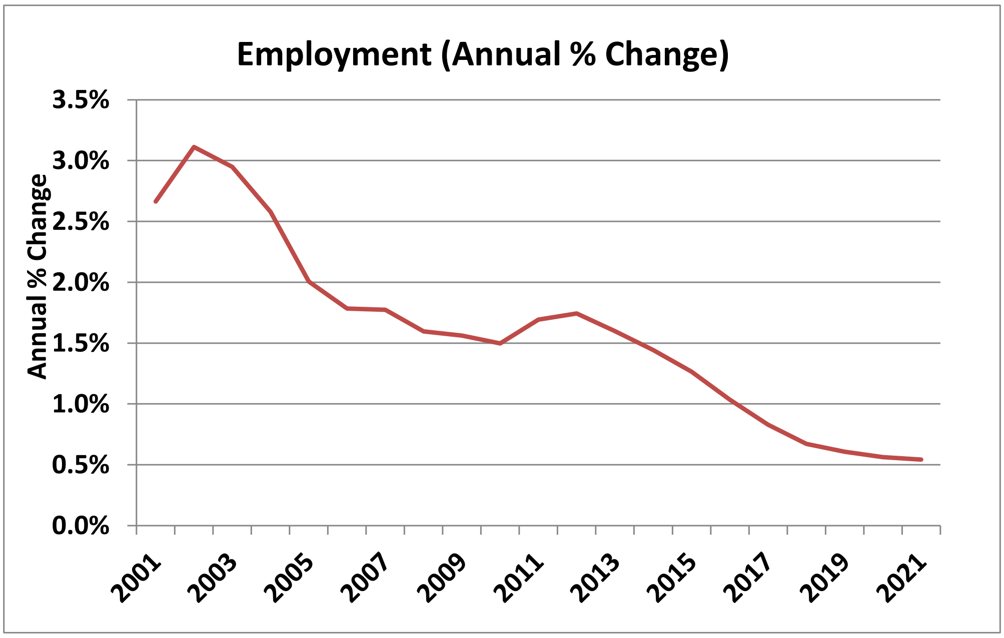
**Figure 4: OE Historical Baseline Forecast - Lebanon GDP (Annual % Change)**




### 8.2 Employment

Lebanon's total private and public sector employment is projected to increase from about 1.3 million people in 2010 to just fewer than 1.5 million people in 2021. As seen in Figure 5 below, this is representative of an employment growth rate that has been steadily declining from its peak in 2002 of approximately 3%, to a projected 0.5% growth rate in 2021. The OE projection is equivalent to an average annual growth rate of approximately 1.1 % between 2011 and 2021. To put this in perspective, Lebanon's total population is projected to grow at an average annual growth rate of approximately 0.7 % over the same time period, implying that Lebanon's available work force will be growing at a higher rate than its population over the same time period, another positive outlook.

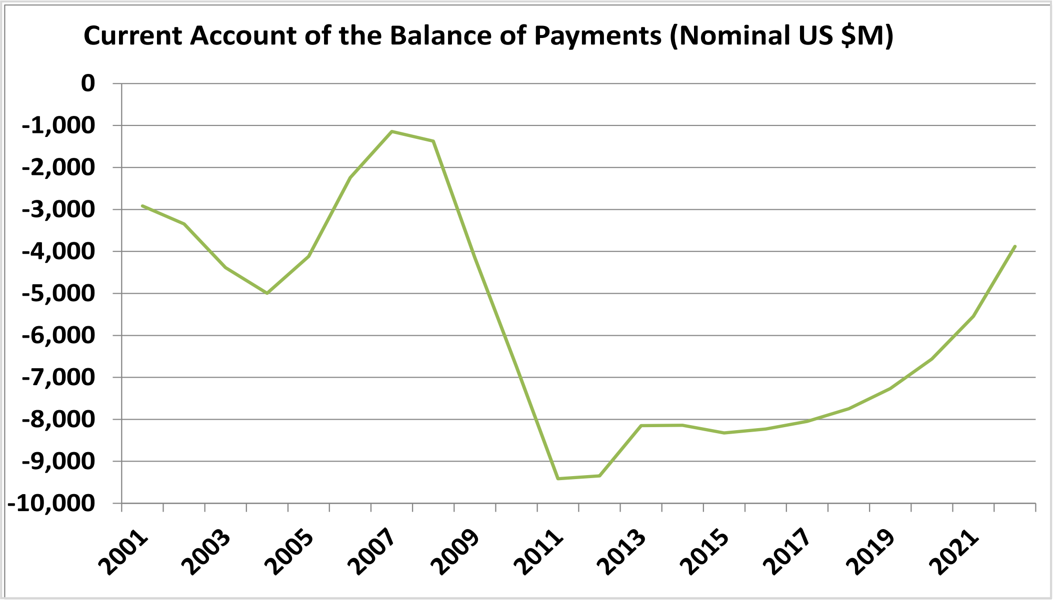
**Figure 5: OE Historical and Baseline Forecast - Lebanon Employment (Annual % Change)**



### 8.3 Current Account Balance of Payments

Lebanon's current account balance[14] is projected to improve from approximately a negative $9.3 billion in 2011 to approximately a negative $3.9 billion in 2021 under the baseline forecast. However, as seen in Figure 6 below, given the projected annual growth in GDP over this time period, this decline translates to an average annual deficit reduction of 7.3 % between 2011 and 2021. In other words, as highlighted in the following sections, while imports are projected to continue to dominate the Lebanese economy, export growth is on an upward trend and is expected to exceed imports near term.

**Figure 6: OE Historical and Baseline Forecast – Current Account Balance of**




**Payments (Nominal US $M)**

### 8.4 Imports and Exports

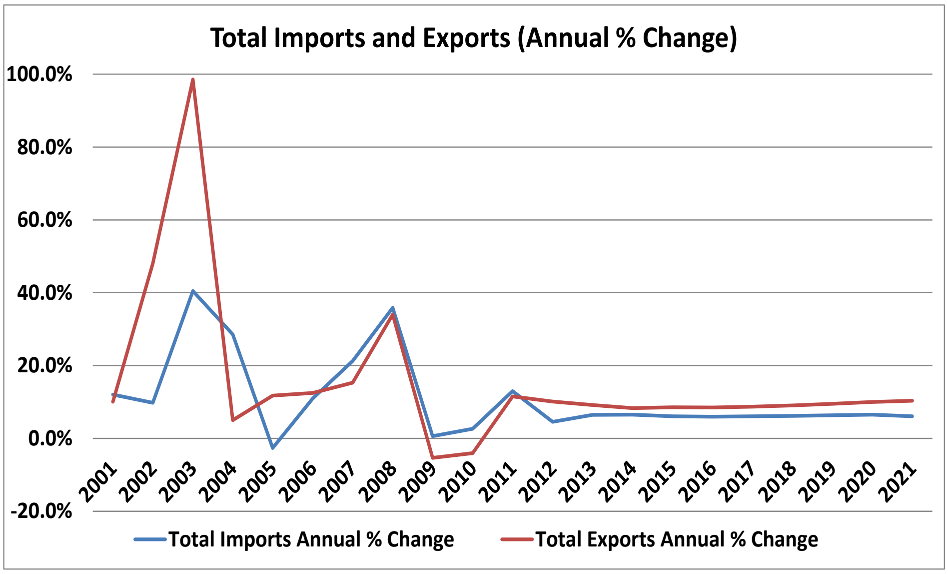
Over the last 10 years, Lebanon's imports have shown significant volatility. Total value of Lebanese imports increased from approximately $7.5 billion to $30.7 billion from 2001-2010 on a nominal basis. As seen in Figure 7 below, this translates to an average annual growth rate of approximately 15.9%. Going forward, the OE model projects total imports into Lebanon will increase from approximately $36 billion to $63 billion from 2011 to 2021 on a nominal basis. This translates to an average annual increase of 6.7% between 2011 and 2021.

Exports have shown significant volatility and have outpaced imports relative to annual growth over the same prior 10 year period. Total value of Lebanese exports increased from approximately $3.4 billion to approximately $21 billion between 2001 and 2010. As seen in Figure 8 below, this translates to an average annual growth rate of approximately 22.6%. The OE model projects Lebanese exports will increase from

[14] The balance of payments is an accounting of a country's international transactions over a certain time period, typically a calendar quarter or year. It shows the sum of the transactions—purely financial ones, as well as those involving goods or services—between individuals, businesses and government agencies in that country and those in the rest of the world.

approximately $23 billion to approximately $56 billion from 2011 to 2021 on a nominal basis. As seen in Figure 7 below and validated through Figure 11 showing the projected current account balance, this translates into an average annual increase of 9.4% between 2011 and 2021, outpacing the growth in imports over this time period.

**Figure 7: OE Historical and Baseline Forecast – Total Imports and Exports (Annual % Change)**




Imports of goods are projected to be slightly greater than services, representing approximately 55% of total imports between 2011 and 2021. Majority of imports are projected to come specifically from the manufacturing sectors and non-tourism related service sectors.

**Figure 8: OE Historical and Baseline Forecast – Imports of Goods and Services as a % of Total Imports**

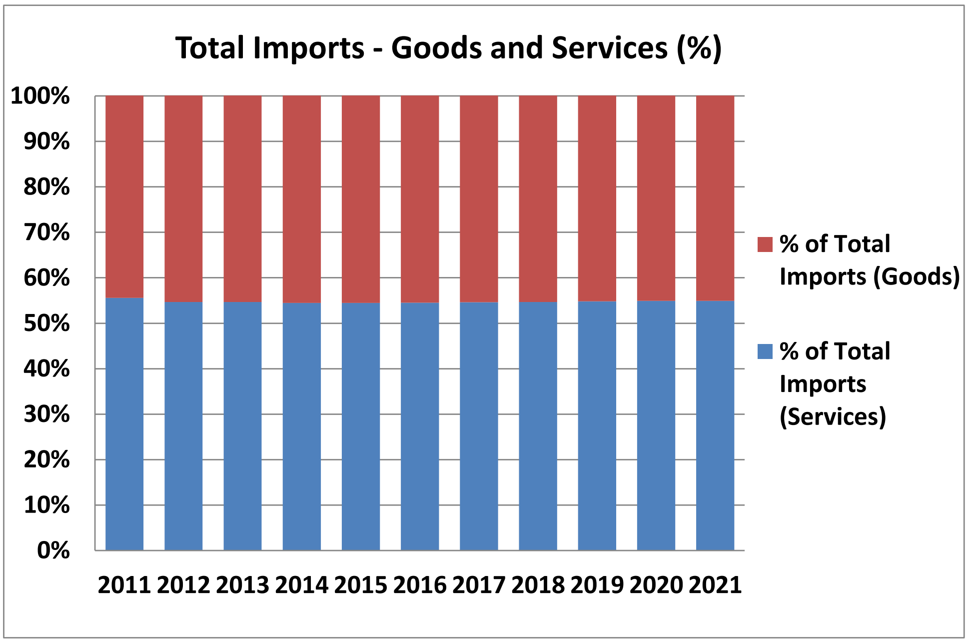
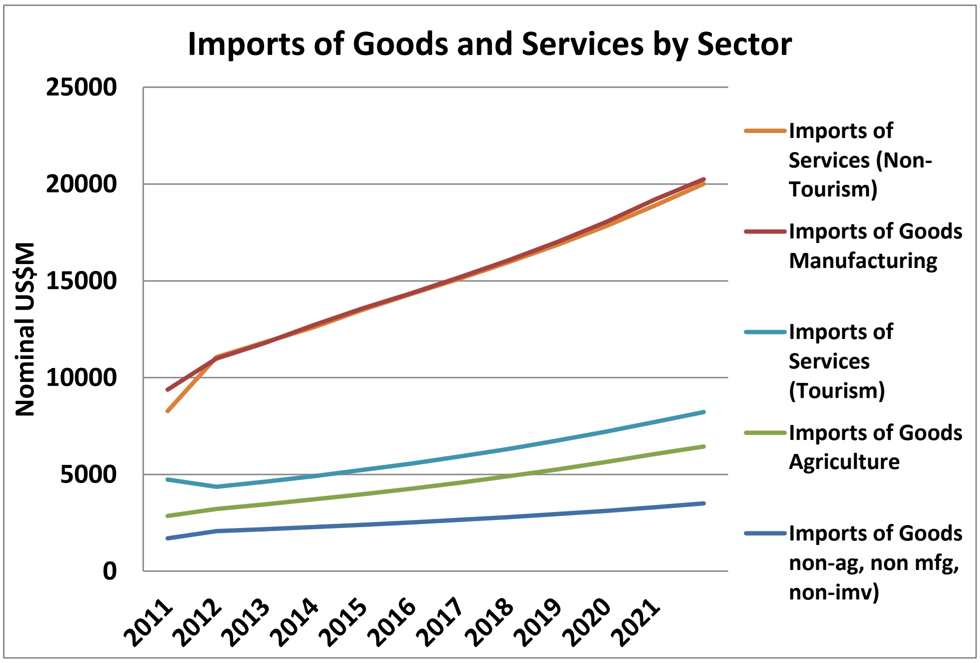


**Figure 9: OE Historical and Baseline Forecast – Imports of Goods and Services by Sector (Nominal US $M)**




Conversely, Lebanon will continue to export significantly more services than goods, with services representing 77% of total exports. As such, the majority of exports are in the tourism and non-tourism related service sectors of the economy, with tourism projected to overtake the non-tourism related sectors (Figure 11), as the nation continues to recover from the war of 2006.

**Figure 10: OE Historical and Baseline Forecast – Exports of Goods and Services as a % of Total Exports**

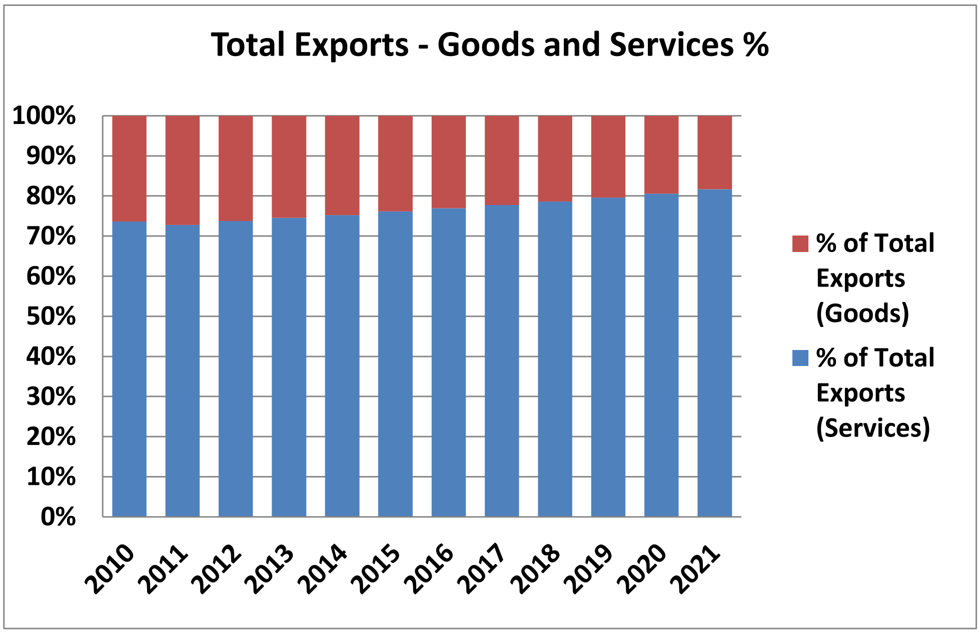
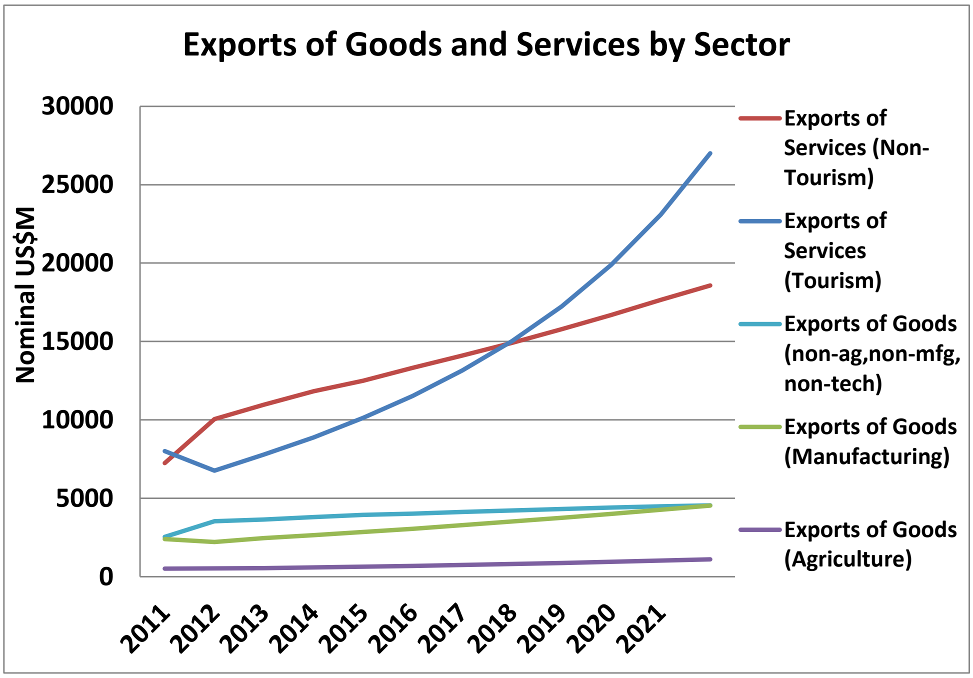


**Figure 11: OE Historical and Baseline Forecast – Exports of Goods and Services by Sector (Nominal US$M)**




## 9. DESCRIPTION OF THE QUANTITATIVE ANALYSIS

To quantify the anticipated impacts of Lebanon's WTO accession, an analysis was performed using the OE model of Lebanon.

### 9.1 Quantitative Analysis Assumptions

To estimate the impact of WTO accession on Lebanon's economy, the focus of this analysis was on the competition law and changes to market access required of full WTO membership. These are projected to represent the primary and near-term impacts on the Lebanese economy resulting from WTO accession.

The specific questions evaluated with the quantitative analysis are:

1.) **What is the projected impact on Lebanon's economy associated with passage of the new competition law?**

2.) **What is the projected impact on Lebanon's economy associated with increases in market access?**

3.) **What is the projected impact on Lebanon's economy associated with a simultaneous passage of the new competition law and increases in market access?**

### 9.2 Quantitative Analysis Methodology

Resulting from the passage of the competition law, small and medium sized enterprises (SMEs) are projected to receive increased access to funding in the form of DI and FDI, while reducing the market share accruing to monopolistic firms that currently represent 19% of GDP. To simulate changes associated with the introduction of the competition law, we changed the baseline values of the following variables within the OE Lebanon model:

- Domestic investment (DI)
- Foreign Direct Investment (FDI)
- Regional prices through the "Consumer Price Index" (CPI).

Simultaneously, market access negotiations are projected to reduce or eliminate tariffs across a number of sectors in Lebanon that in turn will impact public revenue, imports, exports, consumption levels, etc. Subsequently, from a projected reduction in government revenues associated with tariff reductions, the Lebanese government is also considering increasing the Value Added Tax (VAT) from 10% to either 12% or 16%. To simulate changes associated with increases in market access, we changed the baseline values of the following variables:

- Customs and Excise Duties, Effective Tax Rate
- Effective VAT Rate.

### 9.3 Scenario Development Methodology

To answer the three questions outlined in Section 9.1 above, we developed five scenarios, using combinations of the five variables associated with the passage of the competition law and market access negotiations:

- **Scenario 1 – increases in market access (12% VAT)**
    - Import tariff reduction between 2012 and 2021
    - Standard VAT tax rate increase (from 10-12%) between 2012 and 2021
- **Scenario 2 - increases in market access (16% VAT)**
    - Import tariff reduction between 2012 and 2021
    - Standard VAT tax rate increase (from 10-16%) between 2012 and 2021
- **Scenario 3 – passage of the competition law**
    - Domestic price reduction between 2012 and 2021
- **Scenario 4 – simultaneous passage of the competition law and increases in market access (12% VAT)**
    - Import tariff reduction between 2012 and 2021
    - Standard VAT tax rate increase (from 10-12%) between 2012 and 2021
    - Domestic price reduction between 2012 and 2021
    - Domestic investment increase between 2012 and 2021
    - FDI increase between 2012 and 2021
- **Scenario 5 - simultaneous passage of the competition law and increases in market access (16% VAT)**
    - Import tariff reduction between 2012 and 2021
    - Standard VAT tax rate increase (from 10-16%) between 2012 and 2021
    - Domestic price reduction between 2012 and 2021
    - Domestic investment increase between 2012 and 2021
    - FDI increase between 2012 and 2021

The following sections show in detail the changes that were made to the input variables for each scenario. These changes are presented in tabular form for each scenario.

### 9.4 Scenario 1 - Increases in Market Access (12% VAT)

This scenario measures the economic impacts associated with increases in market access. Associated with this policy change are anticipated direct impacts to customs duties and increases in the VAT. The following methodology steps through the changes made in the OE Lebanon model to simulate these direct impacts resulting from increases in market access.

**Reduction in Customs Duties**

Market access negotiations are projected to reduce or eliminate tariffs across a number of sectors in Lebanon resulting in changes in government revenue, imports, exports, consumption levels, etc. Import tariff reductions required for countries undergoing WTO accession have been historically at approximately 50%.[15] Using the current baseline forecast within the OE Lebanon model outlined in Table 2 below, we reduce customs duties by 50%, as shown in Table 3. Customs duties total 5%, as such, a reduction of 50% in the customs duties would equate to only a 2.5% reduction in the OE Lebanon model baseline forecast.

**Table 2: Oxford Economics Lebanon Baseline Forecast - Customs and Excise Duties, effective tax rate (2010-2021)**

| Customs and Excise duties, effective tax rate | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Q1 | 10% | 8% | 8% | 8% | 8% | 8% | 8% | 8% | 8% | 8% | 8% | 8% |
| Q2 | 12% | 8% | 8% | 8% | 8% | 8% | 8% | 8% | 8% | 8% | 8% | 8% |
| Q3 | 11% | 8% | 8% | 8% | 8% | 8% | 8% | 8% | 8% | 8% | 8% | 8% |
| Q4 | 9% | 8% | 8% | 8% | 8% | 8% | 8% | 8% | 8% | 8% | 8% | 8% |
| Average | 11% | 8% | 8% | 8% | 8% | 8% | 8% | 8% | 8% | 8% | 8% | 8% |

**Table 3: Scenario 1 – Changes to OE Lebanon Model Baseline Forecast (Customs and Excise Duties)**

| Customs and Excise duties, effective tax rate reduction | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|
| Q1 | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% |
| Q2 | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% |
| Q3 | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% |
| Q4 | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% |
| Average | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% |

**Increase in the Value Added Tax (VAT)**

To recoup foregone government revenues resulting from reductions in customs duties, a bill has been proposed to increase the current VAT from the standard rate of 10% to 12%, should tariffs on imports be reduced as a result of the WTO accession.[16]

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[15] Dessus, Sebastien, and Joey R. Ghaleb. "Trade and Competition Policies for Growth in Lebanon: A General Equilibrium Analysis." Review of Middle East Economics and Finance 4th ser. 4.1 2008. The Berkeley Electronic Press, 14 Oct. 2008: http://www.bepress.com/rmeef/vol4/iss1/art4/.

Tariff reduction would naturally result from the full implementation of the EuroMed and GAFTA agreements. As these two blocks account for approximately 50 percent of total imports, one could consider that these two agreements would broadly entail halving tariff protection, except in agriculture and processed food sectors. As Lebanon is pursuing WTO accession, it is likely that granting MFN treatment to all its members would leave in the long term little tariff protection. We thus make a conservative assumption that Lebanon will reduce its top rates on tariffs in the long run by 50%.

16 Graham, Patrick. "Lebanon Raises VAT to 12 pct. in 2012 Draft Budget". Thompson Reuters 4 Oct. 2011: http://www.reuters.com/article/2011/10/04/lebanon-budget-idUSL5E7L42R320111004.

### Table 4: Oxford Economics Lebanon Baseline Forecast – Effective VAT Rate (2010-2021)

| Effective VAT Rate | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Q1 | 8% | 7% | 7% | 7% | 7% | 7% | 7% | 7% | 7% | 7% | 7% | 7% |
| Q2 | 8% | 7% | 7% | 7% | 7% | 7% | 7% | 7% | 7% | 7% | 7% | 7% |
| Q3 | 8% | 7% | 7% | 7% | 7% | 7% | 7% | 7% | 7% | 7% | 7% | 7% |
| Q4 | 8% | 7% | 7% | 7% | 7% | 7% | 7% | 7% | 7% | 7% | 7% | 7% |
| Average | 8% | 7% | 7% | 7% | 7% | 7% | 7% | 7% | 7% | 7% | 7% | 7% |

To simulate this change we take the 2012 effective tax rate baseline of 7%, as calculated within the OE model (Table 4), as a percentage of the standard VAT tax rate of 10% to arrive at a ratio of 0.7 (7%/10%). This ratio is applied to the increased standard VAT rate of 12% to calculate the estimated effective tax rates (8%) associated with this VAT increase in 2012. To represent an increase in the VAT, the effective VAT tax rate of 8% is modeled as a direct input in the OE Lebanon model between 2012 and 2021. This change, as shown in Table 5, represents a 1% increase from the OE Lebanon model baseline between 2012 and 2021.

### Table 5: Scenario 1 – Changes to OE Lebanon Model Baseline Forecast (Effective VAT)

| Effective VAT Rate Increase | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| Q1 | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 1% |
| Q2 | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 1% |
| Q3 | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 1% |
| Q4 | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 1% |
| Average | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 1% |

### 9.4.1 Scenario 2 - Increases in Market Access (16% VAT)

This scenario is very similar to Scenario 1, also measuring the economic impact associated with increases in market access. Again, we simulate direct impacts to customs duties and increases in the VAT. However, in this case to recoup foregone government revenues resulting from a reduction in tariffs, we assume the Lebanese government chooses to increase the VAT rate from 10% to 16%. To simulate this potential change, the 0.7 ratio calculated in Scenario 1 is applied to the increased standard VAT rate of 16% to calculate the estimated effective tax rate (11%) associated with this VAT increase to represent an increase in the VAT, the effective VAT tax rate of 11% is incorporated as a direct input in the OE Lebanon model between 2012 and 2021. This change, as shown in Table 6 below, represents a 4% increase from the OE Lebanon model baseline forecast between 2012 and 2021.

### Table 6: Scenario 2 – Changes to OE Lebanon Model Baseline Forecast (Effective VAT Rate)

| Effective VAT Rate Increase | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| Q1 | 4% | 4% | 4% | 4% | 4% | 4% | 4% | 4% | 4% | 4% |
| Q2 | 4% | 4% | 4% | 4% | 4% | 4% | 4% | 4% | 4% | 4% |
| Q3 | 4% | 4% | 4% | 4% | 4% | 4% | 4% | 4% | 4% | 4% |
| Q4 | 4% | 4% | 4% | 4% | 4% | 4% | 4% | 4% | 4% | 4% |
| Average | 4% | 4% | 4% | 4% | 4% | 4% | 4% | 4% | 4% | 4% |

### 9.4.2 Scenario 3 - Passage of the Competition Law

This scenario measures the economic impact associated with passage of the new competition law in Lebanon. Associated with this policy change are anticipated direct impacts to regional prices, and increases in DI and FDI. The following approach steps through the changes made in the OE Lebanon model to simulate these direct impacts resulting from a decision by the Lebanese government to pass the new competition law.

**Price Reduction**

Passage of the new competition law in Lebanon is projected to lead to increases in imports and a reduction in the barriers to entry across numerous industry sectors. In turn, reductions to barriers are projected to reduce regional prices for consumers. Research indicates that imperfect competition currently inflates annual price levels by approximately 5%.[17] Using the current baseline forecast of the OE Lebanon model outlined in Table 7 below, we reduce the levels of Lebanon's Consumer Price Index (CPI) by 5% (e.g., average 2015 = 129.47 * 0.95 = 123) between 2012 and 2021.

**Table 7: Oxford Economics Lebanon Baseline Forecast – Consumer Price Index (2010-2021)**

| CPI - Consumer Price Index (1998=100) | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Q1 | 109 | 115 | 118 | 122 | 125 | 128 | 131 | 135 | 138 | 142 | 145 | 152 |
| Q2 | 110 | 116 | 119 | 122 | 126 | 129 | 132 | 136 | 139 | 143 | 147 | 152 |
| Q3 | 110 | 117 | 120 | 123 | 127 | 130 | 133 | 137 | 140 | 144 | 148 | 152 |
| Q4 | 114 | 118 | 121 | 124 | 128 | 131 | 134 | 138 | 142 | 145 | 149 | 152 |
| Average | 110 | 116 | 120 | 123 | 126 | 129 | 133 | 136 | 140 | 143 | 147 | 152 |

Table 8 below represents the actual change made to the CPI baseline within the OE Lebanon model to represent this change between 2012 and 2021.

**Table 8: Scenario 3 - Changes to OE Lebanon Model Baseline Forecast (CPI)**

| CPI - Consumer Price Index (1998=100) Reduction | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| Q1 | -6 | -6 | -6 | -7 | -7 | -7 | -7 | -8 | -8 | -8 |
| Q2 | -6 | -6 | -6 | -7 | -7 | -7 | -7 | -8 | -8 | -8 |
| Q3 | -6 | -6 | -6 | -7 | -7 | -7 | -7 | -8 | -8 | -8 |
| Q4 | -6 | -6 | -6 | -7 | -7 | -7 | -7 | -8 | -8 | -8 |
| Average | -6 | -6 | -6 | -7 | -7 | -7 | -7 | -8 | -8 | -8 |

**FDI and DI Increase**

Small and medium size enterprises (SMEs) represent 95% of all business entities and employ over 90% of the Lebanese labor force, but only receive approximately 16% of all loans from commercial banks.[18] Resulting from a passage of the new competition law, availability of capital specifically for SMEs is projected to increase in the form of DI and FDI. Furthermore, WTO accession can provide a signal to investors that a country's government is open to world markets and liberalization policies, which would be interpreted as higher levels of political stability, leading to increases in FDI.[19]

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[17]. Dessus, Sebastien, and Joey R. Ghaleb. "Trade and Competition Policies for Growth in Lebanon: A General Equilibrium Analysis." Review of Middle East Economics and Finance 4th ser. 4.1 2008. The Berkeley Electronic Press, 14 Oct. 2008: http://www.bepress.com/rmeef/vol4/iss1/art4/.

[18]. "The Status of Bank Lending to SMEs in the Middle East and North Africa Region: The Results of a Joint Survey of the Union of Arab Banks and the World Bank." The World Bank, The Union of Arab Banks January 2011.http://siteresources.worldbank.org/INTMNAREGTOPPOVRED/Resources/MENAFlagshipSMEFinance2_3_11.pdf

[19] Büthe, T. and Milner, H. "The Politics of Foreign Direct Investment into Developing Countries: Increasing FDI through Policy Commitment via Trade Agreements and Investment Treaties." American Political Science

The OE baseline forecast for DI and FDI is shown in Tables 9 and 10 below.

### Table 9: Oxford Economics Lebanon Baseline Forecast – Domestic Investment - Constant Prices (US $M) - (2010-2021)

| Domestic Investment (Constant Price) US$M | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Q1 | 1,316.8 | 1,599.2 | 1,803.1 | 1,877.7 | 2,013.2 | 2,179.8 | 2,372.3 | 2,578.5 | 2,798.5 | 3,023.5 | 3,259.4 | 3,424.5 |
| Q2 | 1,302.1 | 1,695.1 | 1,843.1 | 1,923.8 | 2,067.3 | 2,243.5 | 2,441.3 | 2,652.3 | 2,875.0 | 3,101.7 | 3,340.6 | 3,506.1 |
| Q3 | 1,342.0 | 1,732.4 | 1,843.3 | 1,949.2 | 2,099.7 | 2,282.7 | 2,486.6 | 2,700.7 | 2,924.8 | 3,156.4 | 3,394.5 | 3,560.2 |
| Q4 | 1,486.1 | 1,778.6 | 1,856.5 | 1,982.7 | 2,140.8 | 2,330.7 | 2,537.6 | 2,757.3 | 2,983.4 | 3,217.1 | 3,457.1 | 3,623.3 |
| Total | 5,447.0 | 6,805.2 | 7,346.0 | 7,733.4 | 8,320.9 | 9,036.7 | 9,837.7 | 10,688.8 | 11,581.8 | 12,498.7 | 13,451.6 | 14,114.1 |

### Table 10: Oxford Economics Lebanon Baseline Forecast – Foreign Direct Investment - Constant Prices (US $M) - (2010-2021)

| Foreign Direct Investment (Constant Price) US$M | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Q1 | 1,446.5 | 1,476.9 | 1,527.3 | 1,556.7 | 1,588.0 | 1,620.0 | 1,652.7 | 1,686.0 | 1,720.0 | 1,754.6 | 1,790.0 | 1,826.0 |
| Q2 | 1,505.4 | 1,490.9 | 1,532.5 | 1,564.5 | 1,596.0 | 1,628.1 | 1,660.9 | 1,694.4 | 1,728.6 | 1,763.4 | 1,798.9 | 1,835.2 |
| Q3 | 1,511.9 | 1,505.4 | 1,539.7 | 1,572.3 | 1,604.0 | 1,636.3 | 1,669.3 | 1,702.9 | 1,737.2 | 1,772.2 | 1,807.9 | 1,844.3 |
| Q4 | 1,466.1 | 1,520.2 | 1,548.9 | 1,580.1 | 1,612.0 | 1,644.5 | 1,677.6 | 1,711.4 | 1,745.9 | 1,781.1 | 1,817.0 | 1,853.6 |
| Total | 5,930.0 | 5,993.3 | 6,148.4 | 6,273.6 | 6,400.0 | 6,528.9 | 6,660.5 | 6,794.7 | 6,931.6 | 7,071.3 | 7,213.8 | 7,359.1 |

Countries with at least 10 years of post WTO accession data were identified to allow us to construct a weighted average increase in DI and FDI from one year prior to WTO accession through 10 years after WTO accession.[20] This weighted average translates to a 73% and a 123% increase in DI and FDI, respectively. We convert these estimates into average annual increases (6.7% and 11.2%, respectively) for the period of 2012-2021, and combine them with the tariff and tax component changes from Scenario 2, to simulate the increase in DI and FDI as shown in Tables 11 - 12 below.

### Table 11: Scenario 3 - Changes to OE Lebanon Model Baseline Forecast (Foreign Direct Investment - Constant Price LBP bn)

| Domestic Investment Increase (Constant Price) LBP bn | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| Q1 | 103 | 216 | 348 | 503 | 685 | 893 | 1131 | 1397 | 1694 | 1978 |
| Q2 | 106 | 221 | 356 | 515 | 701 | 913 | 1153 | 1420 | 1718 | 1999 |
| Q3 | 106 | 224 | 362 | 525 | 714 | 930 | 1174 | 1446 | 1747 | 2032 |
| Q4 | 107 | 229 | 371 | 539 | 734 | 958 | 1210 | 1492 | 1804 | 2102 |
| Total | 422 | 890 | 1437 | 2082 | 2834 | 3694 | 4668 | 5755 | 6963 | 8111 |

### Table 12: Scenario 3 - Changes to OE Lebanon Model Baseline Forecast (Domestic Investment – Constant Price LBP bn)

| Foreign Direct Investment Increase (Constant Price) LBP bn | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| Q1 | 171 | 348 | 533 | 725 | 924 | 1131 | 1346 | 1570 | 1802 | 2042 |
| Q2 | 171 | 350 | 535 | 728 | 929 | 1137 | 1353 | 1578 | 1811 | 2052 |
| Q3 | 172 | 352 | 538 | 732 | 933 | 1143 | 1360 | 1585 | 1820 | 2063 |
| Q4 | 173 | 353 | 541 | 736 | 938 | 1148 | 1367 | 1593 | 1829 | 2073 |
| Total | 688 | 1403 | 2147 | 2921 | 3724 | 4559 | 5426 | 6326 | 7260 | 8230 |

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Association, Hilton Chicago and the Palmer House Hilton, Chicago, IL: August 8, 2004. http://www.allacademic.com/meta/p59852_index.html

[20] The World Bank.1960-2010. http://data.worldbank.org/indicator

### 9.4.3 Scenario 4 - Simultaneous Passage of the Competition Law and Increases in Market Access (VAT 12%)

This scenario measures the economic impact associated with a simultaneous passage of the competition law and increases in market access in Lebanon. Associated with this policy change are anticipated direct impacts in the form of a reduction in regional prices, reduction in customs duties, increases in the VAT and increases in DI and FDI. Building off our assumptions from Scenarios 1 and 2, we assume an increase in the VAT to 12% from the original baseline of 10%. This change, as explained in Scenario 2, represents a 1% increase in the OE Lebanon model's estimated effective VAT rate between 2012 and 2021. Tables 13-17 represent the changes simulated as part of Scenario 4 using the OE Lebanon model.

**Table 13: Scenario 4 - Changes to OE Lebanon Model Baseline Forecast (Customs and Excise Duties)**

| Customs and Excise duties, effective tax rate reduction | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| Q1 | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% |
| Q2 | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% |
| Q3 | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% |
| Q4 | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% |
| Average | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% |

**Table 14: Scenario 4 - Changes to OE Lebanon Model Baseline Forecast (Effective VAT rate)**

| Effective VAT Rate Increase | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| Q1 | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 1% |
| Q2 | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 1% |
| Q3 | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 1% |
| Q4 | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 1% |
| Average | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 1% |

**Table 15: Scenario 4 - Changes to OE Lebanon Model Baseline Forecast (CPI)**

| CPI - Consumer Price Index (1998=100) Reduction | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| Q1 | -6 | -6 | -6 | -7 | -7 | -7 | -7 | -8 | -8 | -8 |
| Q2 | -6 | -6 | -6 | -7 | -7 | -7 | -7 | -8 | -8 | -8 |
| Q3 | -6 | -6 | -6 | -7 | -7 | -7 | -7 | -8 | -8 | -8 |
| Q4 | -6 | -6 | -6 | -7 | -7 | -7 | -7 | -8 | -8 | -8 |
| Average | -6 | -6 | -6 | -7 | -7 | -7 | -7 | -8 | -8 | -8 |

**Table 16: Scenario 4 - Changes to OE Lebanon Model Baseline Forecast (Domestic Investment)**

| Domestic Investment Increase (Constant Price) LBP bn | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| Q1 | 121 | 253 | 408 | 589 | 802 | 1047 | 1326 | 1637 | 1986 | 2318 |
| Q2 | 124 | 259 | 417 | 604 | 821 | 1070 | 1351 | 1664 | 2013 | 2343 |
| Q3 | 124 | 263 | 424 | 615 | 837 | 1090 | 1376 | 1695 | 2047 | 2382 |
| Q4 | 125 | 268 | 435 | 632 | 860 | 1122 | 1418 | 1748 | 2114 | 2464 |
| Total | 495 | 1043 | 1684 | 2440 | 3321 | 4330 | 5471 | 6745 | 8161 | 9507 |

### Table 17: Scenario 4 - Changes to OE Lebanon Model Baseline Forecast (FDI)

| Foreign Direct Investment Increase (Constant Price) LBP bn | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| Q1 | 171 | 348 | 533 | 725 | 924 | 1131 | 1346 | 1570 | 1802 | 2042 |
| Q2 | 171 | 350 | 535 | 728 | 929 | 1137 | 1353 | 1578 | 1811 | 2052 |
| Q3 | 172 | 352 | 538 | 732 | 933 | 1143 | 1360 | 1585 | 1820 | 2063 |
| Q4 | 173 | 353 | 541 | 736 | 938 | 1148 | 1367 | 1593 | 1829 | 2073 |
| Total | 688 | 1403 | 2147 | 2921 | 3724 | 4559 | 5426 | 6326 | 7260 | 8230 |

#### 9.4.4 Scenario 5 - Simultaneous Passage of the Competition Law and Increases in Market Access (VAT 12%)

Scenario 5 is very similar to Scenario 4, also measuring the economic impact associated with a simultaneous passage of the competition law and increases in market access in Lebanon. We simulate direct impacts to customs duties, VAT, regional prices, DI and FDI. However in this case to recoup foregone government revenues resulting from a reduction in tariffs, we assume the Lebanese government chooses to increase the VAT rate from 10% to 16%. Tables 18 - 22 represent the changes simulated as part of Scenario 5 using the OE Lebanon model.

### Table 18: Scenario 5 - Changes to OE Lebanon Model Baseline Forecast

| Customs and Excise duties, effective tax rate reduction | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| Q1 | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% |
| Q2 | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% |
| Q3 | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% |
| Q4 | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% |
| Average | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% | -2.5% |

### Table 19: Scenario 5 - Changes to OE Lebanon Model Baseline Forecast (Effective VAT)

| **Effective VAT Rate Increase** | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| Q1 | 4% | 4% | 4% | 4% | 4% | 4% | 4% | 4% | 4% | 4% |
| Q2 | 4% | 4% | 4% | 4% | 4% | 4% | 4% | 4% | 4% | 4% |
| Q3 | 4% | 4% | 4% | 4% | 4% | 4% | 4% | 4% | 4% | 4% |
| Q4 | 4% | 4% | 4% | 4% | 4% | 4% | 4% | 4% | 4% | 4% |
| Average | 4% | 4% | 4% | 4% | 4% | 4% | 4% | 4% | 4% | 4% |

### Table 20: Scenario 5 - Changes to OE Lebanon Model Baseline Forecast (CPI)

| CPI - Consumer Price Index (1998=100) Reduction | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| Q1 | -6 | -6 | -6 | -7 | -7 | -7 | -7 | -8 | -8 | -8 |
| Q2 | -6 | -6 | -6 | -7 | -7 | -7 | -7 | -8 | -8 | -8 |
| Q3 | -6 | -6 | -6 | -7 | -7 | -7 | -7 | -8 | -8 | -8 |
| Q4 | -6 | -6 | -6 | -7 | -7 | -7 | -7 | -8 | -8 | -8 |
| Average | -6 | -6 | -6 | -7 | -7 | -7 | -7 | -8 | -8 | -8 |

**Table 21: Scenario 5 - Changes to OE Lebanon Model Baseline Forecast (Domestic Investment)**

| Domestic Investment Increase (Constant Price) LBP bn | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| Q1 | 121 | 253 | 408 | 589 | 802 | 1047 | 1326 | 1637 | 1986 | 2318 |
| Q2 | 124 | 259 | 417 | 604 | 821 | 1070 | 1351 | 1664 | 2013 | 2343 |
| Q3 | 124 | 263 | 424 | 615 | 837 | 1090 | 1376 | 1695 | 2047 | 2382 |
| Q4 | 125 | 268 | 435 | 632 | 860 | 1122 | 1418 | 1748 | 2114 | 2464 |
| Total | 495 | 1043 | 1684 | 2440 | 3321 | 4330 | 5471 | 6745 | 8161 | 9507 |

**Table 22: Scenario 5 - Changes to OE Lebanon Model Baseline Forecast (FDI)**

| Foreign Direct Investment Increase (Constant Price) LBP bn | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| Q1 | 171 | 348 | 533 | 725 | 924 | 1131 | 1346 | 1570 | 1802 | 2042 |
| Q2 | 171 | 350 | 535 | 728 | 929 | 1137 | 1353 | 1578 | 1811 | 2052 |
| Q3 | 172 | 352 | 538 | 732 | 933 | 1143 | 1360 | 1585 | 1820 | 2063 |
| Q4 | 173 | 353 | 541 | 736 | 938 | 1148 | 1367 | 1593 | 1829 | 2073 |
| Total | 688 | 1403 | 2147 | 2921 | 3724 | 4559 | 5426 | 6326 | 7260 | 8230 |

### 9.4.5 Sensitivity Analysis

Results of the stakeholder interviews suggested that "political stability" may have a direct impact on the levels of DI and FDI in Lebanon. To incorporate political stability as a factor in measuring the economic impacts associated with WTO accession, the study team performed sensitivity analysis around the estimates of projected DI and FDI growth.

Sensitivity analysis is performed specifically on the results associated with Scenario 5, as this is the all-encompassing scenario (including changes to all five variables outlined in our methodology). T following data set and methodology were used.

***Methodology:*** The **World Bank's WGI** incorporates six dimensions of government: voice and accountability, political stability and absence of violence/terrorism, government effectiveness, regulatory quality, rule of law, and control of corruption.

**Table 23: World Banks' WGI**

| Concept Index Measured | Representative Source |
|---|---|
| ▸ Armed conflict<br>▸ Violent demonstrations<br>▸ Social Unrest<br>▸ International tensions / terrorist threat<br>▸ Orderly transfers | Economist Intelligence Unit Risk-wire & Democracy Index |
| ▸ Threat of terrorism in the country imposes significant costs on business | World Economic Forum Global Competitiveness Report |
| ▸ Frequency of political killings, disappearances, and/or tortures<br>▸ Political terror scale | Cingranelli Richards Human Rights Database and Political Terror Scale |
| ▸ Security Risk Rating | iJET Country Security Risk Ratings |
| ▸ Conflicts of ethnic, religious, regional nature<br>▸ Violent actions by underground political organizations<br>▸ Violent social conflicts<br>▸ External public security | Institutional Profiles Database |
| ▸ Government stability<br>▸ Internal conflict<br>▸ External conflict<br>▸ Ethnic tensions | Political Risk Services International Country Risk Guide |
| ▸ Degree of civil unrest – violent demonstrations, civil war, etc.<br>▸ Sustained threat of terrorism<br>▸ Number of sources of terrorism<br>▸ Degree of terror threat that is localized<br>▸ Likelihood of active groups to target or affect businesses | Global Insight Business Conditions and Risk Indicators |

To measure the economic impact of political stability in Lebanon, the study team calculated weighted averages of political stability from the same list of countries used to project increases in DI and FDI for Lebanon post-WTO accession.

The first weighted average calculated was for the 25 countries with 10 years of post WTO accession **FDI data**. This resulted in a political stability pre-accession score of -0.02, and a -0.05 score post WTO accession, both reflective of moderate levels of political stability. The second weighted average was for the 17 countries with 10 years of post WTO accession **DI data**. Similarly, this resulted in declining scores of 0.12 pre-WTO accession and -0.07 post-WTO accession. In both instances, political stability scores worsened after WTO accession, but remained within the *Moderate Political Stability* ranking and may be a representative of other changes occurring in the global economy. Further research and analysis is needed to identify what correlation, if any, exists between political stability and WTO accession. However, results of the quantitative analysis suggested that political stability does not have a significant impact on the projected results associated with WTO accession. A majority of countries that have undergone WTO accession saw significant increases in both GCF and FDI post WTO accession. If we assume that similar growth in GCF and FDI is expected for Lebanon, the level of stability impacts the benefits associated with WTO accession only slightly, as these stem primarily from increases in investment.

**Scenario 5 Low**

To forecast the impact of political stability on DI and FDI in Lebanon, the study team took Lebanon's average of the six indices from 1996 to 2010, and compared the score to other countries in the database. The analysis found that Lebanon is approximately 15% (.75/5) and 13.9% (.69/5) lower on the political stability scale than the countries identified to estimate the growth in DI and FDI. In view of these results, we simulated two alternative scenarios assuming low and medium levels of political stability, simulating the following changes made to the OE Lebanon model baseline, shown below in Table 24 and Table 25, respectively.

For the "low" scenario, growth estimates for DI and FDI were reduced by 15% and 13.9%, respectively. For this conservative approach, annual growth in FDI is reduced from approximately 15% to approximately 9.5%, 10 years after WTO accession. Annual growth in DI is also reduced from approximately 6.7% to approximately 5.8%, 10 years after WTO accession.

**Table 24: Scenario 5 Low - Changes to OE Lebanon Model Baseline Forecast (Domestic Investment)**

| Domestic Investment Increase (Constant Price) LBP bn | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| Q1 | 103 | 216 | 348 | 503 | 685 | 893 | 1131 | 1397 | 1694 | 1978 |
| Q2 | 106 | 221 | 356 | 515 | 701 | 913 | 1153 | 1420 | 1718 | 1999 |
| Q3 | 106 | 224 | 362 | 525 | 714 | 930 | 1174 | 1446 | 1747 | 2032 |
| Q4 | 107 | 229 | 371 | 539 | 734 | 958 | 1210 | 1492 | 1804 | 2102 |
| Total | 422 | 890 | 1437 | 2082 | 2834 | 3694 | 4668 | 5755 | 6963 | 8111 |

**Table 25: Scenario 5 Low - Changes to OE Lebanon Model Baseline Forecast (FDI)**

| Foreign Direct Investment Increase (Constant Price) LBP bn | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| Q1 | 151 | 307 | 470 | 639 | 815 | 997 | 1187 | 1384 | 1588 | 1800 |
| Q2 | 151 | 308 | 472 | 642 | 819 | 1002 | 1193 | 1391 | 1596 | 1809 |
| Q3 | 152 | 310 | 474 | 645 | 823 | 1007 | 1199 | 1398 | 1604 | 1818 |
| Q4 | 153 | 312 | 477 | 648 | 827 | 1012 | 1205 | 1405 | 1612 | 1827 |
| Total | 606 | 1237 | 1893 | 2574 | 3283 | 4019 | 4783 | 5576 | 6400 | 7254 |

### Scenario 5 Medium

Of the six indicators for which data was collected, the *political stability and absence of violence/terrorism* indicator lowered Lebanon's (average rating of -1.8 between 2006 and 2010) overall political stability score. This is likely a result of the 2006 War. To project how growth may appear if violence and terrorism decreased to a level similar to other nations that have undergone WTO accession, we simulated another scenario (entitled Scenario 5 – Medium Political Stability) taking an average of this indicator from both lists of countries associated with our estimates of DI and FDI, as a proxy for a level that Lebanon could realistically attain post WTO accession. We substituted this new average score into the original political stability equation to find that Lebanon would be 10.7% (0.54/5) and 9.5% (0.48/5) lower on the political stability scale than those countries we identified to estimate the growth in FDI and DI. As such, to simulate the medium alternative analysis, growth estimates for FDI and domestic investment were reduced by 10.7% and 9.5%, respectively. This approach resulted in a small reduction in FDI's annual growth rate from 11.2% 10 years after WTO accession, to approximately 10.5%. Domestic investment is also reduced slightly, from an annual growth of 6.7% to approximately 6.1%. Tables 26 and 27 below identify the model inputs used in the OE Lebanon model to simulate these changes.

**Table 26: Scenario 5 Medium- Changes to OE Lebanon Model Baseline Forecast (Domestic Investment)**

| Domestic Investment Increase (Constant Price) LBP bn | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| Q1 | 110 | 230 | 370 | 535 | 728 | 950 | 1202 | 1485 | 1801 | 2102 |
| Q2 | 112 | 235 | 379 | 548 | 745 | 970 | 1226 | 1509 | 1826 | 2125 |
| Q3 | 113 | 238 | 385 | 558 | 759 | 989 | 1248 | 1537 | 1857 | 2160 |
| Q4 | 114 | 243 | 394 | 573 | 780 | 1018 | 1286 | 1585 | 1918 | 2235 |
| Total | 449 | 946 | 1527 | 2213 | 3012 | 3926 | 4961 | 6117 | 7401 | 8621 |

**Table 27: Scenario 5 Medium- Changes to OE Lebanon Model Baseline Forecast (FDI)**

| Foreign Direct Investment Increase (Constant Price) LBP bn | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| Q1 | 160 | 326 | 499 | 679 | 866 | 1060 | 1262 | 1471 | 1688 | 1914 |
| Q2 | 161 | 328 | 502 | 682 | 870 | 1065 | 1268 | 1478 | 1697 | 1923 |
| Q3 | 161 | 330 | 504 | 686 | 875 | 1071 | 1274 | 1486 | 1705 | 1933 |
| Q4 | 162 | 331 | 507 | 689 | 879 | 1076 | 1281 | 1493 | 1714 | 1942 |
| Total | 644 | 1315 | 2012 | 2737 | 3490 | 4272 | 5085 | 5928 | 6803 | 7712 |

## 9.5 Data

The primary sources used for this analysis were the World Bank's World Development Indicators (WDI)[21] and the World Bank's Worldwide Governance Indicators (WGI)[22].

To project anticipated growth in DI (Gross Capital Formation - GCF) and FDI, data was pulled from the World Bank's WDI database. Impacts to FDI and GCF in these countries are used as proxies for projections of DI and FDI growth in Lebanon for the 10 years following WTO accession. Ten years of historical data with respect to increases in FDI (Figure 26) and GCF (Figure 27) for countries that have undergone WTO accession are included in Appendix C.

To measure the relative level of political stability in Lebanon and compare this to the proxy countries used to project potential FDI and GCF growth associated with Lebanon's WTO accession, we used the World Bank's WGI of six broad dimensions of government. These include:

- *Voice and Accountability* – civilian participation in government selection, freedom of expression, association and media
- *Political Stability and Absence of Violence/Terrorism* – likelihood of government destabilization/overthrow by violent, unconstitutional, politically-motivated, or terrorist means
- *Government Effectiveness* – quality of public and civil services and their degree of objectivity from political interest, quality of policy formation and implementation, and credibility of policy commitment from the government
- *Regulatory Quality* – government capacity to create and implement policies and regulations that foster private sector development
- *Rule of Law* – crime and violence, faith and compliance in societal rules; contract enforcement quality, property rights, law enforcement, judicial systems

[21] The World Bank. 1960-2010.http://data.worldbank.org/indicator

[22]. The World Bank Group. 1996-2010. http://info.worldbank.org/governance/wgi/index.asp

- *Control of Corruption* – petty and grand corruption, degree of public power used for private gain, elite and private interest "capture" of state

The above six aggregate indicators are based on 30 underlying data sources reporting the perceptions of governance of a large number of survey respondents and expert assessments worldwide. For each of these indexes, countries are given a score that ranges from -2.5 (weak level of political stability) to 2.5 (strong level of political stability) for governance performance. A score of 0 is thus reflective of a country with moderate levels of political stability. To put this in perspective, in 2010 the United States received an average score of 1.19, reflective of a nation with a moderate to strong level of political stability.

## 10. RESULTS OF THE QUANTITATIVEANALYSIS

Results are presented for four of the five scenarios simulated as part of this analysis (Scenarios 1, 2, 3, and 5). Sensitivity analysis was performed specifically on the results associated with Scenario 1 and 5 as these both included increases in DI and FDI associated with passage of the competition law. Results presented in this section for Scenarios 1 and 5 assume a medium level of political stability. Results for Scenario 4 and the sensitivity analysis that we performed on Scenario 5 assuming low, medium and high levels or political stability are included in full detail in Appendix D of this report.

### 10.1 Scenario 1 and 2 Results (GDP and Employment)

**Scenario 1 GDP and Employment:**

Increases in market access increase Lebanon's GDP by a total of approximately LBP 400 billion, or an annual increase of LBP 40 billion between 2012 and 2021, representing an average annual increase of approximately 0.07%. This compares to an average annual growth rate in GDP of approximately 4.8 % as projected in the OE Lebanon model baseline between 2012 and 2021.

The impact on Lebanon's employment is insignificant with a total increase of approximately 50 jobs, or an average annual increase of approximately 0.004%. This compares to an average annual growth rate in employment of approximately 1.1 % as projected in the OE Lebanon model baseline between 2012 and 2021.

Impacts are small because the (US $M nominal) value of Lebanon's imports is already on average 30% more than they will export between 2012 and 2021. Currently average customs duties are already less than 5%, with only 15% of imported goods falling between a 20 and 35% tariff. In addition, a 2% increase in the VAT is not projected to have a significant impact on disposable personal income, and thus consumer spending, at the aggregate level.

**Scenario 2 GDP and Employment:**

Increases in market access, assuming an increase in the VAT to 16%, reduces Lebanon's GDP by a total of approximately LBP 1.6 trillion, or an annual average of LBP 160 billion between 2012 and 2021. This is associated with a minimal average annual decrease of approximately 0.27%. This compares to an average annual growth rate in GDP of approximately 4.8 % as projected in the OE Lebanon model baseline between 2012 and 2021.

The impact on Lebanon's employment is also very small, with a total reduction of approximately 400 jobs, or an average annual reduction of approximately 0.03%. This compares to an average annual growth rate in employment of approximately 1.1% as projected in the OE Lebanon model baseline between 2012 and 2021.

Figures 12 and 13 depict the average annual growth rates in GDP and employment for the Lebanese economy associated with Scenarios 2 and 3. Impacts to the Lebanese economy are small, and indicate that the effects of a 50% reduction in tariff rates and an increase in the VAT to 12% would effectively cancel each other out, while a 16% VAT outweighs any of the benefits associated with reductions in tariffs. This is directly attributed to reductions in disposable personal income, as consumers are forced to pay higher prices for goods, thus decreasing consumer expenditures and overall demand for domestic goods.

**Figure 12: Scenario 1 and 2, GDP, Annual % Change**

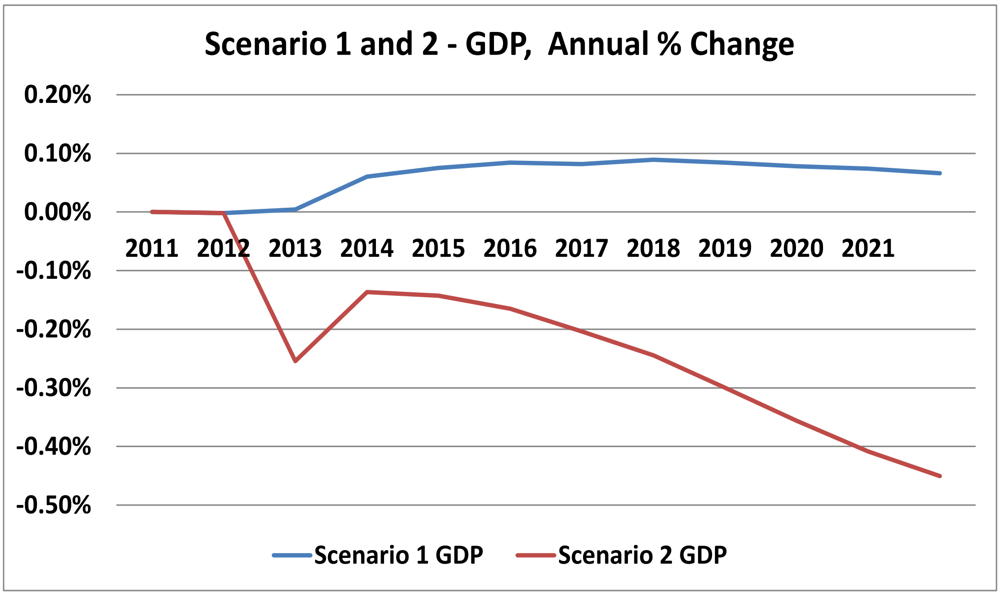
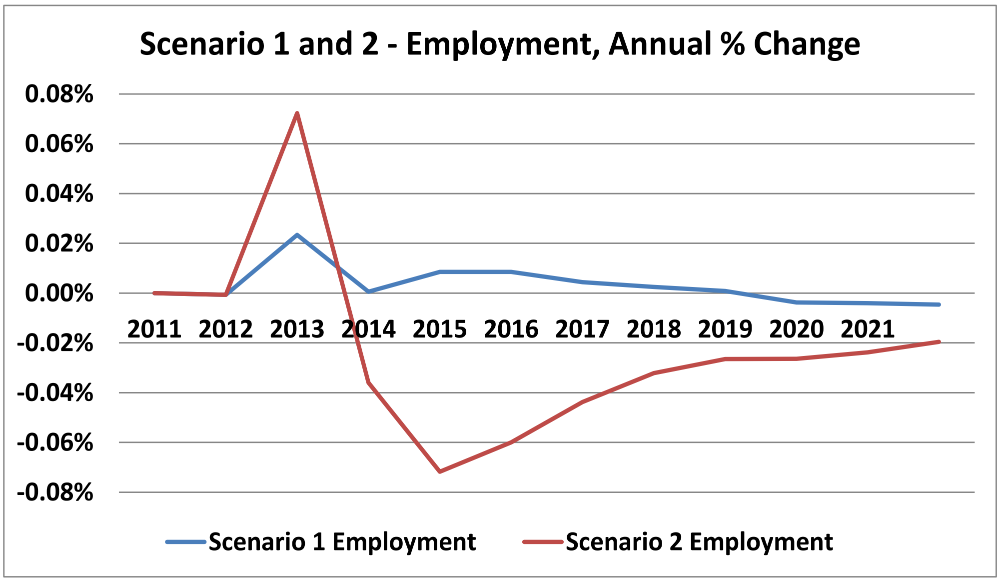



**Figure 13: Scenario 1 and 2, Employment, Annual % Change**



### 10.2 Scenario 3 Results (GDP and Employment)

**GDP and Employment:** Passage of the new competition law in Lebanon increases GDP by a total of approximately LBP 64.5 trillion, or an annual average of approximately LBP 6.45 trillion between 2012 and 2021. This translates to an average annual increase of approximately 10.7%. This compares to an average annual growth rate in GDP of approximately 4.8 % as projected in the OE Lebanon model baseline between 2012 and 2021.

Lebanon's employment increases in total by approximately 15,000 jobs, or an average annual increase of approximately 0.96%. This compares to an average annual growth rate in employment of approximately 1.1 % as projected in the OE Lebanon model baseline between 2012 and 2021.

Figures 14 and 15 depict the percentage growth rate in GDP and employment for the Lebanese economy over the study period. Impacts to the Lebanese economy are minimal but positive, resulting from increases in disposable personal income, and increases in domestic demand for goods and services.

**Figure 14: Scenario 3 Results –GDP, Annual % Change**

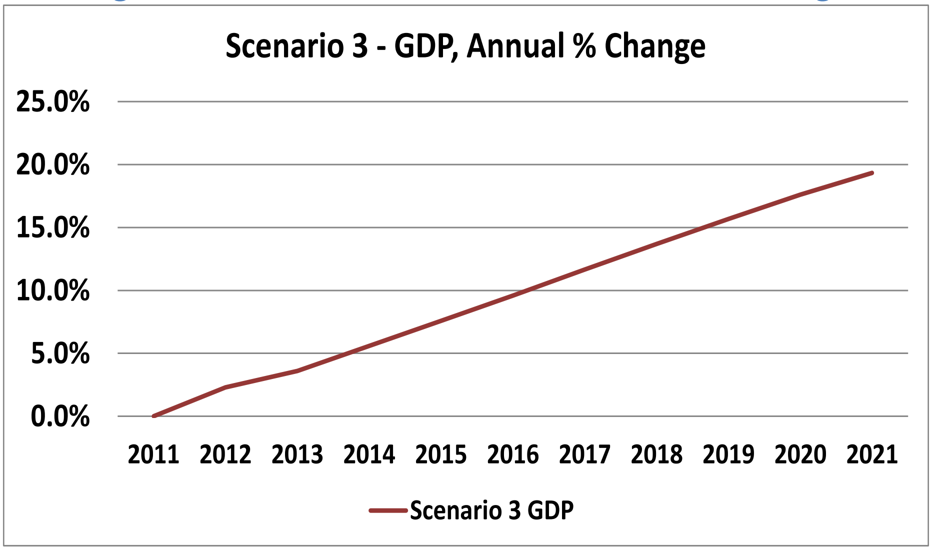
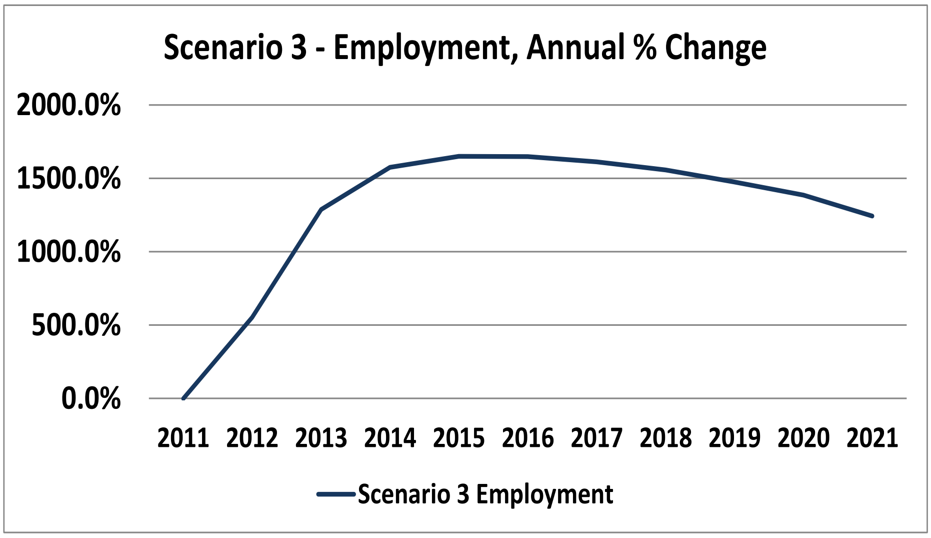



**Figure 15: Scenario 3 Results –Employment, Annual % Change**



### 10.3 Scenario 5 – Simultaneous Passage of the Competition Law and Increases in Market Access (16% VAT)

#### 10.3.1 Scenario 5 - Results (GDP and Employment)

A simultaneous passage of the new competition law and increases in market access increase GDP by a total of approximately LBP 64.7 trillion or an average of LBP 6.47 trillion per year, representing an average annual increase of approximately 10.7%. This compares to an average annual growth rate in GDP of approximately 4.8 % as projected in the OE Lebanon model baseline between 2012 and 2021.

Lebanon's employment over this time period increases in total by approximately 14,000 jobs, representing an average annual increase of approximately 0.96%. This compares to an average annual growth rate in employment of approximately 1.1 % as projected in the OE Lebanon model baseline between 2012 and 2021

Figures 16 and 17 depict the growth rate in GDP and employment associated with a simultaneous passage of the competition law and increases in market access. Impacts to GDP are significant, directly attributed to increases in FDI and DI, as well as are increases in disposable personal income, consumer expenditures, and increases in productivity and output by Lebanese firms. However, the growth in employment on a percentage basis lags behind GDP significantly, explained by major increases in imports, and a relatively low unemployment rate, compared to other developing countries, of approximately 7.9% projected for the Lebanese economy between 2012 and 2021.

**Figure 16: Scenario 5 Medium - GDP, Annual % Change**

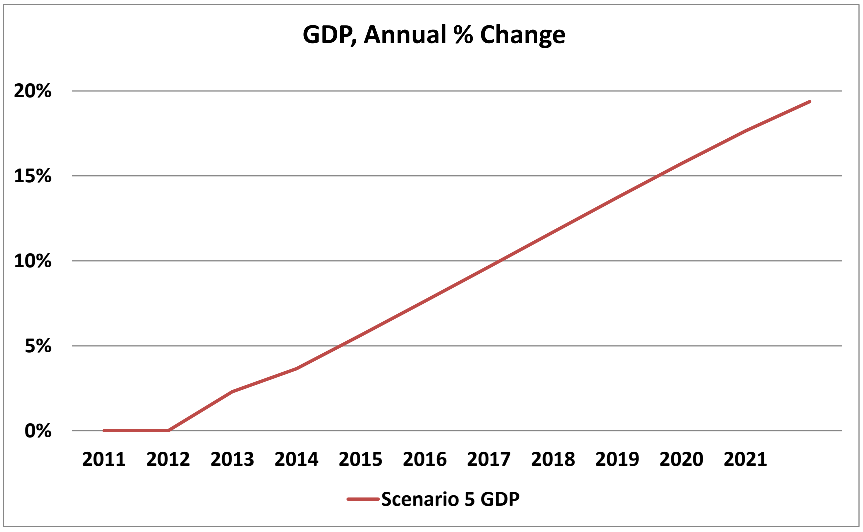
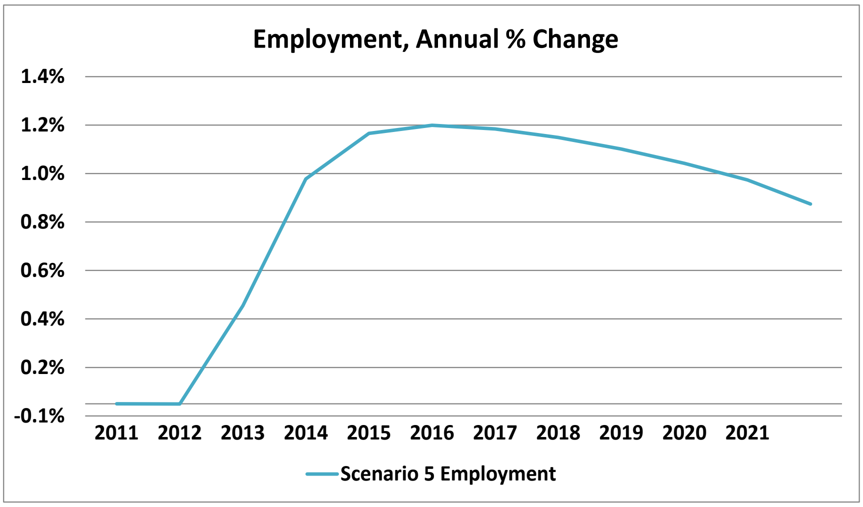


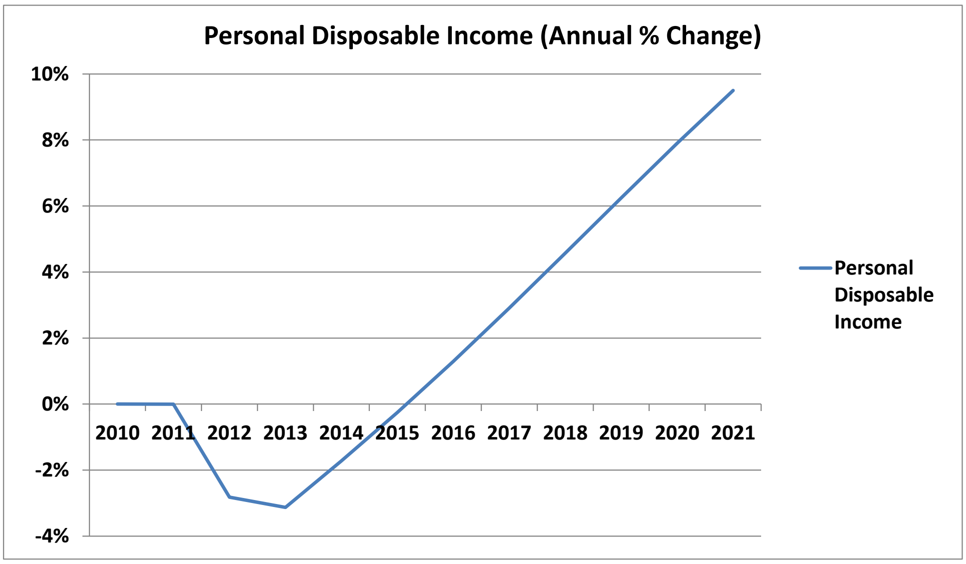

**Figure 17: Scenario 5 Medium - Employment, Annual % Change**



### 10.3.2 Scenario 5 – Results (Disposable Personal Income)

In the short term, disposable personal income is reduced initially as domestic employers are forced to lower production costs and wages to compete with relatively cheaper imports. As seen in Figure 18 below, disposable personal income initially falls below the OE Lebanon model baseline, decreasing by approximately 1.3% between 2012 and 2016 on an average annual basis. This trend does not last, however, as domestic producers eventually increase production levels to meet growing domestic demand. This results in additional increases in employment, increases in wages, and thus an overall increase in disposable personal income. Disposable personal income recovers positively above the baseline increasing on an average annual basis by approximately 5.4% between 2016 and 2021. This compares to an average annual growth rate in disposable personal income of approximately 7.9%[23] as projected in the OE Lebanon model baseline between 2012 and 2021.

**Figure 18: Scenario 5 Medium - Personal Disposable Income, Annual % Change**




### 10.3.3 Scenario 5 –Results (Total Imports and Exports)

**Imports:** Assuming a simultaneous passage of the competition law and increases in market access, average annual imports increase in total by LBP 77 trillion or approximately LBP 7.7 trillion per year between 2012 and 2021. As seen in Figure 19, this equates to an average annual increase of approximately 14% over this time period, directly attributed to increases in consumer demand and increases in market access associated with reductions in tariffs. This compares to an average annual growth rate in imports of approximately 6 % as projected in the OE baseline between 2012 and 2021.

**Exports:** Conversely, exports are projected to decrease by LBP 3.1 trillion or approximately LBP 310 billion per year between 2012 and 2021. As seen in Figure 19, this equates to an average annual reduction of approximately 0.71% over this time period. This compares to an average annual growth rate in exports of approximately 9% as projected in the OE baseline between 2012 and 2021.

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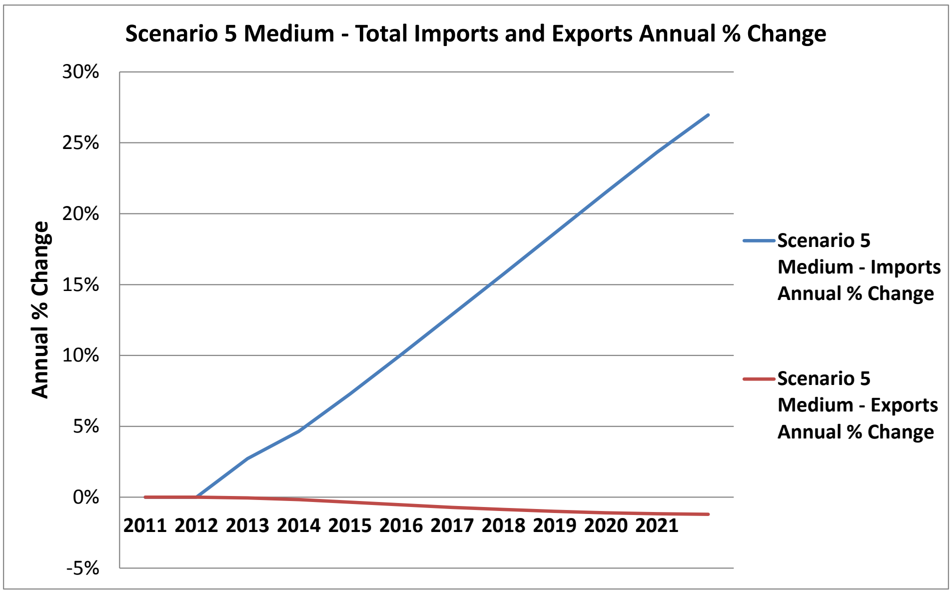
[23] United Nations Development Programme's Millennium Development Goals for Lebanon. 2000-2015. http://www.undp.org.lb/WhatWeDo/MDGs.cfm

This is a direct result of increases in consumer expenditures, as domestic producers ramp up production levels to meet increasing demand, while international producers take advantage of reductions in tariffs and increases in disposable personal income.

**Figure 19: Total Imports and Exports, Annual % Change**




#### 10.3.4 Scenario 5 –Results (Imports and Exports of Goods and Services)

As shown in Figures 20 and 21 below, and reflective of the relative competitiveness of the Lebanese services sector, imports for goods significantly outpace imports for services, while bearing the majority of the reduction in exports between 2012 and 2021. This can be directly attributed to domestic firms ramping up production to meet increased demand from increases in disposable personal income.

**Figure 20: Scenario 5 Medium - Imports, Annual % Change**

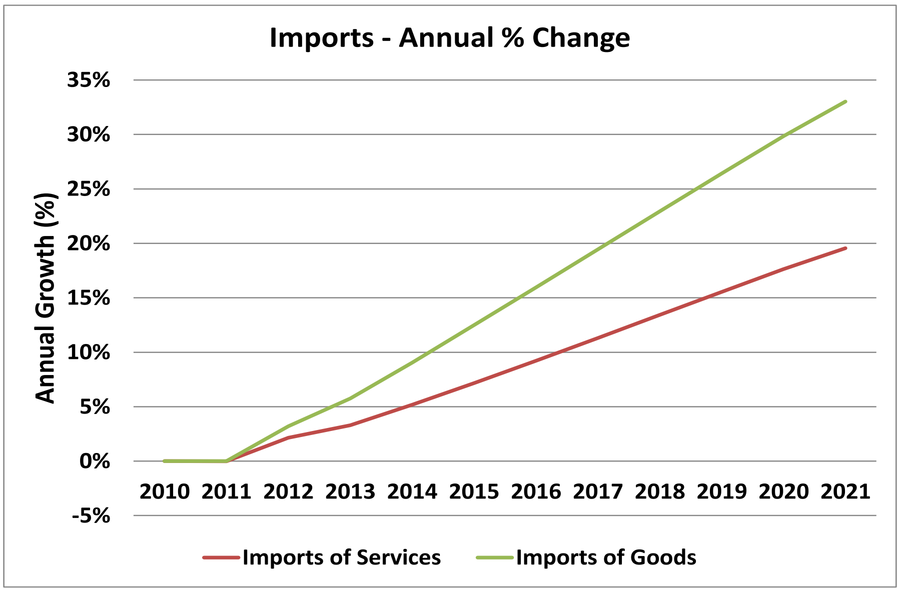
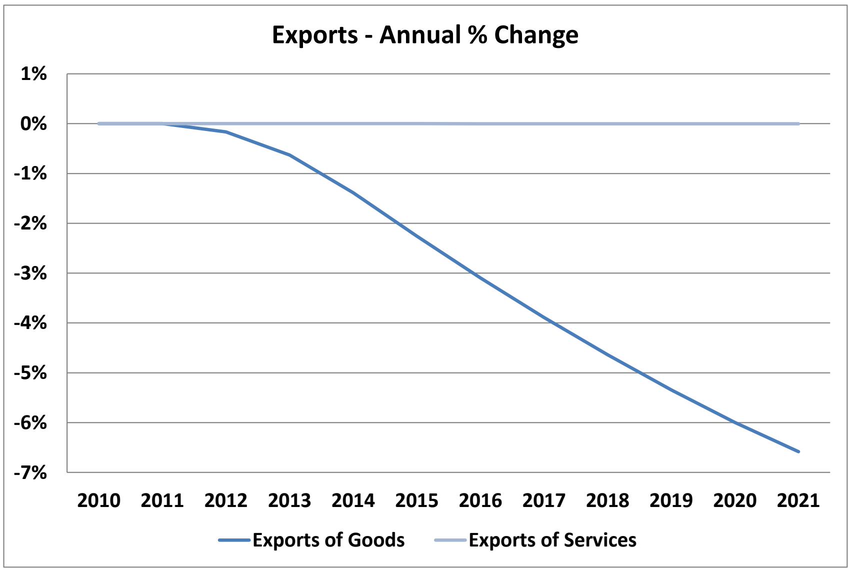


**Figure 21: Scenario 5 Medium - Exports, Annual % Change**

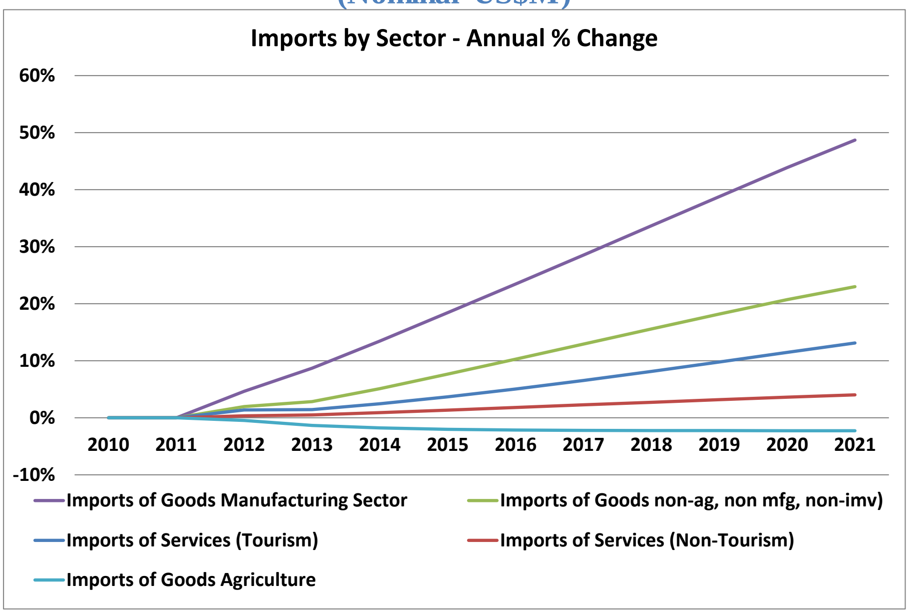



As seen in Figure 22, changes in manufacturing imports are most significant, increasing on an average annual basis by approximately 22% between 2012 and 2021. This compares to an average annual growth rate in manufacturing imports of approximately 7 % as projected in the OE Lebanon model baseline between 2012 and 2021.

This can be attributed to increases in DI and FDI used to rebuild and improve domestic infrastructure necessary for industries to transport goods and services to consumers. Tourism is also projected to increase as employment and disposable personal income increase over the long term.

Conversely, agricultural exports are reduced over this time period, decreasing on an average annual basis by approximately 1.9% between 2012 and 2021. This compares to an average annual growth rate in agricultural goods exports of approximately 7 % as projected in the OE Lebanon model baseline between 2012 and 2021. This change is directly attributed to domestic producers selling more of their goods domestically in response to increases in domestic consumer demand and expenditures associated with increases in disposable personal income.

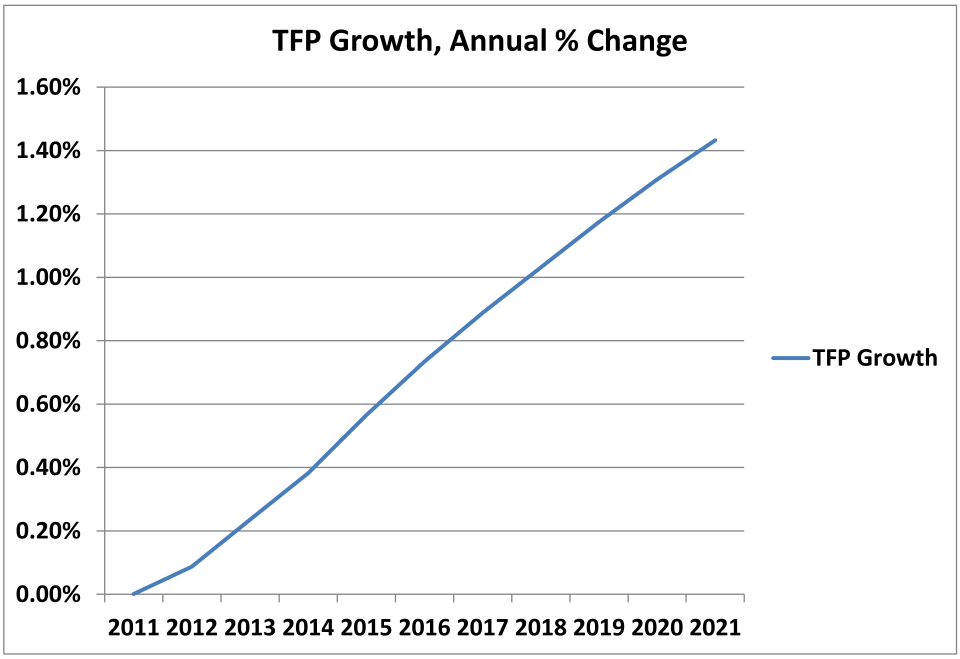
**Figure 22: Scenario 5 Medium - Imports of Goods and Services (Nominal US$M)**



### 10.3.1 Scenario 5 –Results (Total Factor Productivity)

Although exports are not projected to increase in the short term post-WTO accession, this is not reflective of the technological growth and competitiveness of Lebanese firms over this time period. Total Factor Productivity (TFP) is used as a measure of an economy's long-term technological change or technological dynamism. As seen in Figure 23 below, WTO accession will increase TFP in Lebanon post-WTO accession by an average annual basis of approximately 0.8%. This compares to average annual growth in TFP of approximately 3.2% in the baseline forecast.

Figure 23: Scenario 5 - TFP Growth, Annual % Change

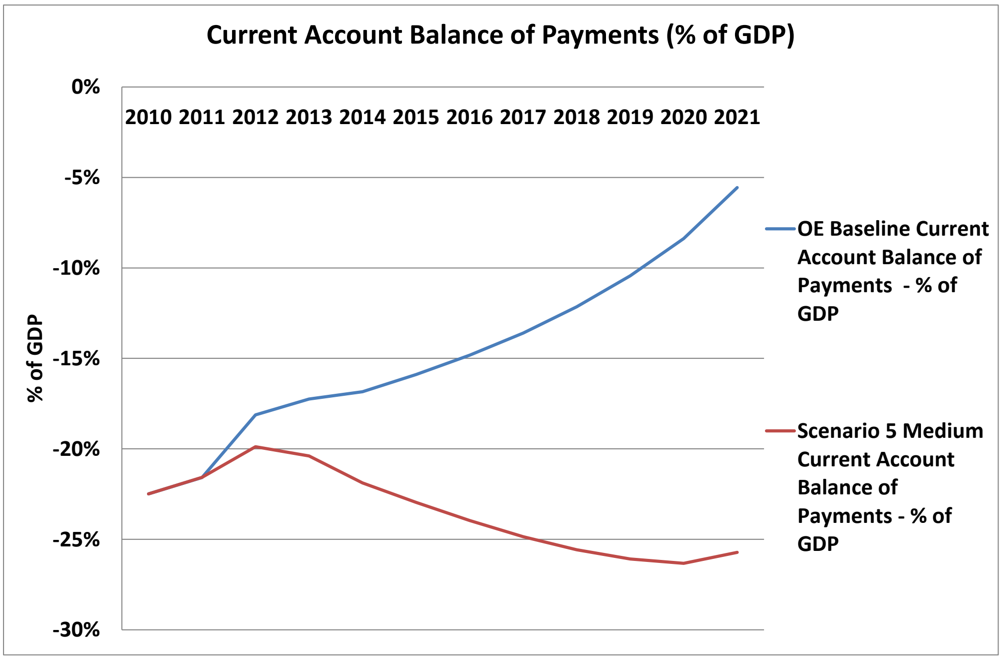



As confirmed in the stakeholder assessments, increases in the availability of capital through DI and FDI will allow domestic producers to innovate, specialize or diversify depending on the industry sector, and to market their products in such a way that they can compete in the global economy. This is representative of an overall trend associated with increases in Lebanon's TFP. In the short term, reduced exports and a significant influx of investment result in deterioration in the current account. In the long term, productivity improvements are expected to result in significant increases in domestic output and increases in Lebanon's global footprint.

### 10.3.2 Scenario 5 –Results (Current Account Balance of Payments)

Significant increases in imports with a minimal reduction in exports result in a temporary but significant deterioration in the current account balance of payments. As seen in Figure 24 below, the current account balance as a percentage of GDP decreases on an average annual basis by approximately 10% between 2012 and 2021.

**Figure 24: Scenario 5 Medium - Current Account Balance of Payment**




### 10.4 Results Summary

**Increases in market access assuming a 16% VAT** reduces GDP and employment minimally. The reduction is primarily associated with increases in the VAT and increases in consumer prices, thus reducing disposable personal income, consumer spending and domestic production over the long term. Imports are not impacted significantly by a reduction in tariffs because the (US $M nominal) value of Lebanon's imports is already on average 30% more than they will export between 2012 and 2021. Currently average customs duties are already less than 5%, with only 15% of imported goods falling between a 20 and 35% tariff.

- Lebanon's GDP is reduced by a total of approximately LBP 1.6 trillion, or an annual average of LBP 160 billion (0.27%) between 2012 and 2021. This compares to an average annual growth rate in GDP of approximately 4.8 % as projected in the OE Lebanon model baseline between 2012 and 2021.
- Lebanon's employment is reduced by total of approximately 400 jobs, or an average annual reduction of approximately 0.03%. This compares to an average annual growth rate in employment of approximately 1.1 % as projected in the OE Lebanon model baseline between 2012 and 2021.

**Passage of the Competition Law** increases GDP and employment significantly, with the majority of growth associated primarily with increases in DI and FDI.

- Lebanon's GDP increases by a total of approximately LBP 64.5 trillion, or an annual average of approximately LBP 6.45 trillion (10.7%) between 2012 and 2021. This compares to an average annual growth rate in GDP of approximately 4.8 % as projected in the OE Lebanon model baseline between 2012 and 2021.
- Lebanon's employment increases in total by approximately 15,000 jobs, or an average annual increase of approximately 0.96%. This compares to an average annual growth rate in employment of approximately 1.1 % as projected in the OE Lebanon model baseline between 2012 and 2021.

**Simultaneous passage of the competition law and increases in market access** increase GDP and employment significantly, with the majority of growth associated primarily with increases in DI and FDI. Growth in GDP is projected to be slightly higher than passage of the competition law on its own, increasing by approximately LBP 20 million in total between 2012 and 2021. Employment increases by approximately 1000 fewer jobs than with passage of the competition law on its own, resulting from an increase in the VAT, increasing the prices that consumers have to pay for their products, and resulting in a relatively mitigated increase in regional demand and domestic production.

- **Lebanon's GDP** increases by a total of approximately LBP 64.7 trillion, or an annual average of LBP 6.47 (10.7%) trillion between 2012 and 2021. This compares to an average annual growth rate in GDP of approximately 4.8% as projected in the OE Lebanon model baseline between 2012 and 2021.
- **Lebanon's employment** increases in total by approximately 14,000 jobs between 2012 and 2021, representing an average annual increase of approximately 0.96%. This compares to an average annual growth rate in employment of approximately 1.1% as projected in the OE Lebanon model baseline between 2012 and 2021.
- **Disposable personal income** falls initially below the OE Lebanon model baseline, decreasing on average annual basis by approximately 1.3% between 2012 and 2016. This trend does not last, however, as domestic producers increase production levels to meet growing domestic demand. Disposable personal income then increases on an average annual basis by approximately 5.4% between 2016 and 2021.
- Changes to **imports** are observed primarily in the manufacturing goods sector, increasing on an average annual basis by approximately 22% between 2012 and 2021. Conversely, majority of the change in exports is felt in the agricultural goods sector. Agricultural exports decrease on an average annual basis by approximately 1.9% between 2012 and 2021, which is directly attributed to domestic producers selling more of their goods domestically in response to increases in domestic consumer demand and expenditures associated with increases in disposable personal income.
- Significant increases in **imports** and a reduction in **exports** result in a short term but significant deterioration in the **current account balance of payments** between 2012 and 2021. This is synonymous with an average annual deficit increase of approximately 10% each year between 2012 and 2021.

In summary, the table below presents the results of the scenarios constructed to estimate the impact of WTO accession on Lebanon's economy. The summary results mainly focus on the analysis on the competition law and changes to market access required of full WTO membership. The specific questions evaluated with the quantitative analysis are:

- **What is the projected impact on Lebanon's economy associated with increases in market access? (Table 27 - Scenario's 1 and 2)**
- **What is the projected impact on Lebanon's economy associated with passage of the new competition law? (Table 27 - Scenario 3)**
- **What is the projected impact on Lebanon's economy associated with a simultaneous passage of the new competition law and increases in market access? (Table 27 - Scenarios 4 and 5)**

## Table 28: Summary of Baseline Data and Results

| Summary Table | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Baseline** | **2011** | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** | **2021** | **Average** |
| GDP Annual Growth | 3.5% | 3.8% | 5.0% | 4.7% | 4.8% | 4.8% | 4.9% | 5.0% | 5.1% | 5.3% | 5.5% | 4.8% |
| Employment Annual Growth | 1.7% | 1.7% | 1.6% | 1.4% | 1.3% | 1.0% | 0.8% | 0.7% | 0.6% | 0.6% | 0.5% | 1.1% |
| Current Account of the Balance of Payments Annual | -0.7% | -12.8% | -0.1% | 2.3% | -1.1% | -2.3% | -3.7% | -6.2% | -9.7% | -15.5% | -30.0% | -7.3% |
| Total Imports Annual | 13.0% | 4.6% | 6.5% | 6.5% | 6.1% | 6.0% | 6.1% | 6.2% | 6.3% | 6.5% | 6.1% | 6.7% |
| Total Exports Annual | 11.5% | 10.1% | 9.2% | 8.3% | 8.5% | 8.5% | 8.7% | 9.0% | 9.5% | 10.0% | 10.3% | 9.4% |
| Personal Disposable Income | 9.2% | 7.7% | 7.6% | 7.9% | 8.1% | 8.3% | 8.5% | 8.7% | 8.9% | 9.1% | 10.1% | 8.5% |
| Results by Scenario | | | | | | | | | | | | |
| **Percentage Change from Baseline** | **2011** | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** | **2021** | **Average** |
| ***Scenario 1*** | | | | | | | | | | | | |
| GDP, constant prices | -0.002% | 0.004% | 0.060% | 0.075% | 0.084% | 0.082% | 0.089% | 0.084% | 0.078% | 0.074% | 0.066% | 0.07% |
| Employment , constant prices | -0.001% | 0.023% | 0.001% | 0.009% | 0.009% | 0.004% | 0.002% | 0.001% | -0.004% | -0.004% | -0.005% | 0.004% |
| ***Scenario 2*** | | | | | | | | | | | | |
| GDP, constant prices | -0.002% | -0.254% | -0.136% | -0.143% | -0.165% | -0.204% | -0.244% | -0.300% | -0.356% | -0.409% | -0.450% | -0.27% |
| Employment, constant prices | -0.001% | 0.072% | -0.036% | -0.072% | -0.060% | -0.044% | -0.032% | -0.026% | -0.026% | -0.024% | -0.020% | -0.03% |
| ***Scenario 3*** | | | | | | | | | | | | |
| GDP, constant prices | 0.00% | 2.29% | 3.61% | 5.58% | 7.58% | 9.60% | 11.65% | 13.68% | 15.68% | 17.61% | 19.34% | 10.7% |
| Employment , constant prices | 0.00% | 0.40% | 0.92% | 1.11% | 1.15% | 1.13% | 1.10% | 1.05% | 0.99% | 0.93% | 0.83% | 0.96% |
| ***Scenario 4*** | | | | | | | | | | | | |
| GDP, constant prices | 0.00% | 2.30% | 3.65% | 5.63% | 7.62% | 9.65% | 11.70% | 13.73% | 15.72% | 17.65% | 19.37% | 10.7% |
| Employment , constant prices | 0.00% | 0.40% | 0.93% | 1.12% | 1.15% | 1.13% | 1.10% | 1.05% | 0.99% | 0.92% | 0.82% | 0.96% |
| ***Scenario 5*** | | | | | | | | | | | | |
| Personal Disposable Income | 0.00% | -2.82% | -3.13% | -1.72% | -0.26% | 1.29% | 2.91% | 4.57% | 6.24% | 7.90% | 9.50% | 2.45% |
| Import (total) | 0 | 3% | 5% | 7% | 10% | 13% | 16% | 19% | 21% | 24% | 27% | 14% |
| Imports of Goods Manufacturing Sector | 0.00% | 4.66% | 8.69% | 13.46% | 18.44% | 23.47% | 28.55% | 33.67% | 38.80% | 43.87% | 48.69% | 23.8% |
| Imports of Goods Agriculture | 0.00% | -0.47% | -1.33% | -1.78% | -2.01% | -2.13% | -2.20% | -2.23% | -2.25% | -2.25% | -2.26% | -1.9% |
| Exports (total) | 0 | -0.04% | -0.16% | -0.34% | -0.54% | -0.72% | -0.87% | -0.99% | -1.09% | -1.16% | -1.21% | -0.71% |
| Exports of Goods (Manufacturing) | 0.17% | 0.13% | -0.70% | -1.79% | -2.88% | -3.92% | -4.91% | -5.84% | -6.71% | -7.49% | -33.96% | -2.83% |
| Exports of Goods (agri sector) | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | -0.01% | 0.00% |
| TFP Growth | 0.00% | 0.09% | 0.23% | 0.38% | 0.56% | 0.73% | 0.89% | 1.03% | 1.17% | 1.31% | 1.43% | 0.78% |
| Current Account Balance of Payments as % of GDP | 0% | -2% | -3% | -5% | -7% | -9% | -11% | -13% | -16% | -18% | -20% | -10% |

## 11. COMPARING LEBANON WITH OTHER COUNTRIES THAT HAVE UNDERGONE TRADE LIBERALIZATON

As countries adjust to an influx of capital inflows, currency appreciation, and changing trade supply and demand structures, it is common for import growth to surpass export growth in the short term. A study of 40 countries by the International Monetary Fund[24] on the effect of trade liberalization on imports and exports found that post-liberalization, exports increased approximately 19.5% to 24.1%, while imports increased approximately 23.8% to 30.6%, increasing the trade deficit an average of 4.3% to 6.5%.[25] Below are several factors that explain these imbalances:

- **Tariff Cuts -** Customs duties have a more pronounced impact on imports than exports. Lowering restrictions increases the value of imports over exports, inclining more countries to "cut and bind" their tariffs at the maximum rate possible. The preferential duty-free treatment given to imports gives way to increased market security for traders and investors.[26] This is not as much of a concern for Lebanon as current average customs duties are already less than 5%, with only 15% of imported goods falling between a 20% and 35% tariff. In addition, a 2% increase in the VAT to recoup some of the lost government revenues is not projected to have a significant impact on disposable personal income, and thus consumer spending as a whole.
- **Entering New Markets -** Increasing exports requires more effort and time than increasing imports. Export growth necessitates new market capture, sufficient production capacity and increased competition so as to ensure that domestic producers are able to develop products required of them from global markets. This requires resource reallocation and greater production processes, whereas imports primarily require domestic demand. As an example, Gambia's export trade tapered off after their WTO accession 1996, when they were unable to compete with regional competition and lower import prices.[27]
- **Increasing Income Elasticity of Demand -** Economic growth, currency appreciation, and increases in national income levels are often followed by an increase in imports, for personal items as living standards increase or for capital equipment as industries expand. This is seen in our analysis through increases in personal disposable income, and thus increases in consumer expenditures. For example, Gambia's import peak was due to a surge in domestic investment projects, such as road construction, similar to what can be expected in Lebanon as the nation's infrastructure outside of Beirut would require some refurbishment to start realizing the benefits of WTO accession. India also experienced a widening trade deficit as their imports grew faster to meet its domestic demand and respond to increasing oil prices.[28]
- **Global Supply Chains -** While the income elasticity of demand is roughly equal for imports and exports, price elasticity of demand is greater for imports

[24] Refer to Appendix C for full list of Countries
[25] International Monetary Fund, "The Impact of Trade Liberalization on the Trade Balance in Developing Countries."January 2008.
[26] World Trade Organization. *Tariffs: more bindings and closer to zero*. n.d. <http://www.wto.org/english/thewto_e/whatis_e/tif_e/agrm2_e.htm>.
[27] World Trade Organization. "Trade Policy Review Report by the Secretariat:The Gambia." 2004. <www.wto.org/english/tratop_e/tpr_e/s127-1_e.doc - 2004-02-05>.
[28] World Trade Organization. "Trade Policy Report: India." 2011. http://www.wto.org/english/tratop_e/tpr_e/tp349_e.htm>.

than for exports. In other words, as disposable personal income in Lebanon increases, the change in demand for exports and imports will likely remain the same. However, as domestic prices decrease, as is expected to happen in Lebanon resulting from passage of the competition law, demand for imports is expected to increase at a greater rate than the demand for exports since domestic prices are not likely to have any impact the global economy.

- **Exchange Rate Fluctuations:** An initial effect of trade liberalization is exchange rate appreciation, which has an inverse effect on export growth. Economies with strong export capabilities, such as China, are not immune from this decrease in export growth.

Emerging market economies are oftentimes characterized by the above effects. However, while the above conditions are common for short term effects of trade liberalization, the long term effects of trade liberalization on average reduce the trade deficit, level out the trade balance, and increase gross national income per capita.[29] (See Table 29)

**Table 29: Economic Indicators Before and After Trade Liberalization (1975-2004)**

| General Indicators | Before | After |
|---|---|---|
| Gross National Income Per Capita (US$, Atlas Method) | 981.37 | 1624.45 |
| Inflation (% Annual) | 29.39 | 25.91 |
| Fiscal Balance (% of GDP) | -4.43 | -1.86 |
| Growth in External Debt (% Annual) | 10.42 | -1.54 |
| Current Account Balance (% of GDP) | -5.69 | -3.39 |
| Real Effective Exchange Rate (2000=100) | 152.84 | 102.35 |
| Terms of Trade (2000=100) | 115.45 | 103.05 |
| Imports of Goods and Services (% of GDP) | 29.42 | 35.01 |
| Regression Variables | | |
| Growth in GDP Per Capita (% Annual) | 0.92 | 2.11 |
| Investment (% GDP) | 20.41 | 21.22 |
| Export of Goods and Services (% of GDP) | 23.88 | 29.53 |
| Industrial Value Added (% of GDP) | 27.54 | 26.67 |
| Exports Concentration (Herfindahl-Hirschmann Index) | 0.36 | 0.31 |
| Manufacturing Exports (% of Merchandise Exports) | 26.16 | 41.60 |

**Source: World Development Indicators (2006)**

In the long run, however, imported inputs to production processes eventually increase exports, potentially increasing their competitive standing in global markets. Export companies are able to realize cost savings through outsourcing and modernization of production processes to global standards. Following Vietnam's trade liberalization, their agricultural industry was able to maintain a higher export growth rate and establish itself in the global export supply chain. They were able to realize this success from importing biological technology and outsourcing science and technology support.[30] Once exports

[29] Refer to Appendix C for list of sample countries

[30] Vietnam. Ministry of Industry and Trade in Partnership with the European Commission Comprehensive Evaluation of Increased Key Imports-Exports and Regulatory Changes Resulting from Vietnam's WTO Membership, Vietnam: May 2008

from emerging market economies receive a "growth push" in the initial years following trade liberalization, after 30 years imports and exports have both increased by approximately 6 basis points (See Table 30). The reason for this late gain in momentum is from initial undervaluation of product quality and value from external markets. [31]

### Table 30: Import, Export, and Trade Balance to GDP Ratios, Before and After Trade Liberalization, 1970 - 2004

| Country | Imports/GDP (%) | | Exports/GDP (%) | | Trade Balance/GDP (%) | |
|---|---|---|---|---|---|---|
| | Before | After | Before | After | Before | After |
| Argentina | 6.2 | 9.1 | 8.1 | 11.5 | 2.0 | 2.4 |
| Benin | 27.6 | 28.8 | 10.3 | 18.6 | -17.4 | -10.2 |
| Brazil | 7.5 | 9.1 | 8.1 | 9.7 | 0.6 | 0.6 |
| Cameroon | 16.8 | 15.6 | 15.5 | 18.1 | -1.3 | 2.5 |
| Chile | 18.6 | 24.4 | 18.8 | 24.4 | 0.3 | 0.0 |
| China | 11.5 | 20.1 | 11.4 | 22.4 | -0.1 | 2.3 |
| Colombia | 12.2 | 15.2 | 11.7 | 13.2 | -0.4 | -2.0 |
| Costa Rica | 31.3 | 35.7 | 24.3 | 29.5 | -7.0 | -6.2 |
| Ecuador | 17.9 | 21.9 | 21.1 | 22.6 | 3.3 | 0.7 |
| Gambia, The | 52.1 | 54.5 | 26.8 | 8.4 | -25.4 | -46.2 |
| Ghana | 22.7 | 42.2 | 22.0 | 26.5 | -0.7 | -15.7 |
| Guatemala | 17.3 | 24.6 | 15.4 | 14.0 | -2.0 | -10.6 |
| Guinea-Bissau | 37.9 | 29.7 | 9.5 | 28.6 | -28.4 | -1.1 |
| Guyana | 69.9 | 81.0 | 62.9 | 71.2 | -7.0 | -9.9 |
| Honduras | 29.7 | 44.7 | 25.8 | 24.8 | -3.9 | -19.8 |
| India | 6.9 | 11.4 | 5.4 | 9.2 | -1.5 | -2.2 |
| Indonesia | 15.6 | 24.0 | 22.0 | 34.3 | 6.4 | 10.3 |
| Jamaica | 40.5 | 42.2 | 24.1 | 14.5 | -16.4 | -27.7 |
| Kenya | 26.3 | . | 17.0 | . | -9.3 | . |
| Malaysia | 47.0 | 83.0 | 52.4 | 97.7 | 5.4 | 14.7 |
| Mali | 22.2 | 29.6 | 10.4 | 20.5 | -11.8 | -9.0 |
| Mauritania | 31.6 | 32.6 | 36.3 | 26.7 | 4.7 | -6.0 |
| Mexico | 8.9 | 24.1 | 9.0 | 22.0 | 0.0 | -2.1 |
| Morocco | 24.8 | 32.2 | 15.3 | 20.8 | -9.4 | -11.3 |
| Nepal | 15.4 | 28.8 | 5.9 | 10.6 | -9.5 | -18.3 |
| Nicaragua | 34.8 | 41.6 | 21.2 | 14.9 | -13.5 | -26.7 |
| Nigeria | 23.4 | 23.8 | 29.4 | 40.3 | 5.9 | 16.6 |
| Pakistan | 17.5 | 17.3 | 11.6 | 14.2 | -5.9 | -3.1 |
| Paraguay | 13.3 | 31.1 | 9.3 | 15.1 | -4.0 | -15.9 |
| Peru | 11.7 | 13.6 | 13.8 | 12.1 | 2.1 | -1.5 |

[31] International Monetary Fund, "Changing Patterns of Global Trade", June 2011.

| | | | | | | |
|---|---|---|---|---|---|---|
| **Philippines** | 27.0 | 49.0 | 19.8 | 46.0 | -7.3 | -2.9 |
| **Sri Lanka** | 31.1 | 38.9 | 22.4 | 29.7 | -8.8 | -9.1 |
| **Thailand** | 32.5 | . | 28.2 | . | -4.3 | . |
| **Tunisia** | 35.2 | 43.3 | 22.0 | 30.7 | -13.2 | -12.6 |
| **Turkey** | 10.5 | 21.0 | 5.6 | 13.6 | -4.9 | -7.5 |
| **Uganda** | 13.4 | 22.5 | 12.7 | 8.5 | -0.7 | -14.0 |
| **Uruguay** | 14.4 | 17.5 | 13.8 | 13.8 | -0.6 | -3.6 |
| **Venezuela** | 17.8 | 15.6 | 24.8 | 27.3 | 7.0 | 11.7 |
| **Zambia** | 27.7 | 31.9 | 35.6 | 26.5 | 8.0 | -5.4 |
| **Average** | **23.8** | **30.6** | **19.5** | **24.1** | **-4.3** | **-6.5** |
| **Before < After** | 33 | | 28 | | 15 | |
| **Before > After** | 4 | | 9 | | 22 | |

**Source: International Monetary Fund, "The Impact of Trade Liberalization on the Trade Balance in Developing Countries", January 2008**

Exchange rate fluctuations are another natural cycle that eventually balances the trade deficit. The greater number of imports relative to exports begins to lower the exchange rate, as seen in Table 29. The outcome of this is an increased global demand for cheaper exports and a pull back on imports as they become relatively more expensive in the domestic market. This was the case for Croatia, where following an initial period of currency appreciation and high levels of imports, the currency devalued and export prices dropped in foreign currency terms, while import prices rose in local currency.[32] Historically the Lebanese pound has been pegged to the US dollar currently valued at 1507.5LBP to 1 US Dollar. To see the benefits associated with a reduced exchange rate, Lebanon's Central Bank may need to consider allowing the LBP to devalue against the dollar thus making their exports more attractive to foreign markets.

The global supply chain generally has advanced economies at the top with higher levels of exports, and less advanced economies at the bottom with higher levels of imports, as seen in the table below. As countries and economies evolve from increased access to input materials and respond to a larger market, their operations improve and they move up the value chain.

## 12. CONCLUSION AND SUGGESTIONS FOR FURTHER ANALYSIS

The results of this analysis indicate that WTO accession will deliver long term gains to Lebanon. Concerns by stakeholders about reductions in tariffs and increases in Value Added Taxes (VAT) associated with increases in market access from WTO accession are unfounded in the long run. Changes in imports are minimal in comparison to the baseline because average customs duties in Lebanon are already less than 5%, too low on its own to keep international importers from supplying their goods to the Lebanese market. Furthermore, given the level of domestic prices, increases in the VAT, while notable, are not projected to have a significant impact on the Lebanese economy in the long run.

While imports associated with WTO accession are projected to increase, they are attributed to passage of the new competition law, and specifically to increases in FDI

[32] International Monetary Fund, "The Effects of Exchange Rate Change on the Trade Balance in Croatia", April 2004.

and DI. Based on historical data from other developing countries that have undergone WTO accession, investment is expected to increase after WTO accession.

Near term increases in exports are unlikely. As validated by the stakeholder assessment, with significant trade agreements already in place between Lebanon, the EU, U.S. and neighboring Arab countries, firms that interested in exporting their products are already doing so.

Although exports are not projected to increase in the short term, total factor productivity or TFP is projected to increase between 2012 and 2021. This is a favorable outcome as TFP is a measure of the productivity or relative contribution of factors used in production and higher values of TFP are associated with greater efficiencies in the use of such inputs to production relative to the output generated. As confirmed by the quantitative analysis and stakeholder assessments, any increases in the availability of capital through DI and FDI will allow domestic producers to innovate, specialize or diversify depending on the industry sector, and to market their products in such a way that they can compete in the global economy. At the present time, however, domestic industries are reticent to invest in their production process because of the perceived political instability within Lebanon and the belief that such instability will mitigate the gains from added investment. In addition, many are convinced that WTO accession will not result in increased FDI. Our research indicated that based on the experiences of 25 developing countries that have undergone WTO accession since 1995; FDI is projected to increase significantly. In the long term, increases in productivity will result in increased domestic output and exports, improving the Lebanese private sector’s global footprint.

Based on this analysis, the upside potential of WTO accession, particularly the passage of the competition law and increases in market access, as indicated by the estimated changes in GDP, employment, disposable personal income, TFP, and investment significantly outweighs any negatives, e.g., deterioration in the current account, short term increases in imports. However, further economic analysis on which specific industry sectors and regions of Lebanon are least equipped for the competition that will result from WTO accession would better prepare both the public and private sectors and help mitigate any short term negative impacts.

# APPENDIX A – ACCESSION PROCESS TIMELINE, ENACTED LAWS AND PENDING LAWS

### Table 31: Accession Process Timeline

| Date | Initiative |
| --- | --- |
| December, 1948 | Lebanon entered the GATT trade agreement. |
| 28 February , 1948 | Lebanon denounces their membership with the GATT trade agreement allegedly for the purpose of revising Lebanon's economic relations and foreign trade policies with other countries. |
| 1 August, 1994 | The Council of Ministers amends the Internal Regulation of the Order of Pharmacists. |
| 29 December, 1994 | Lebanon requests joining the GATT- Verbal Note. |
| 5 November, 1998 | Lebanon requests an observer status in the WTO. |
| January, 1999 | Lebanon requests to join the WTO. |
| February 1999 | Lebanon requests membership to the WTO according to Article 12 of the Marrakesh Agreement. |
| 14 April, 1999 | The WTO General Council decides to establish a Working Party for Lebanon to follow-up on and support Lebanon's accession to the WTO.<br><br>The WTO General Council grants Lebanon Observer Status. |
| 20 September, 2000 | Lebanese Government adopts a framework to reform Lebanon's legal and regulatory environment, to conform to the WTO's Multilateral Agreements.<br><br>Decision No. 76 is adopted. |
| 15 October, 2000 | Lebanon finalizes the Accession Master Plan. |
| 1999-2001 | Lebanon's Ministry of Economy and Trade prepares the Memorandum of Foreign Trade Regime (MFTR). |
| June, 2001 | Lebanon submits the MFTR to the WTO. |
| 22 July, 2002 | Parliament ratifies the Telecommunications Law. |
| 14 October, 2002 | First Working Party meeting is held; 150 questions are answered regarding the Memorandum of Foreign Trade Regime.<br><br>Lebanon participates in unofficial meetings with USA, Australia, EU and Cuba to discuss the (MFTR). |
| 4-5 December, 2003 | Second Working Party meeting is held; further questions are answered and negotiations ceased at a heated debate on agricultural subsidies in Lebanon. The Secretariat begins to prepare the Factual Summary Report.<br><br>3 of the 11 service sectors (Education, Sports and Leisure, and Transportation), representing 50 out of the 130 sub-service sectors are included in Lebanon's offers. |
| 8-9 July, 2004 | Lebanon's third Working Party meeting is held; questions related to the Factual Summary are answered.<br><br>100 revised service proposals are submitted concerning all 11 sectors. |
| 4 March, 2005 | The Council of Ministers issues a decree establishing the Telecommunications Regulatory Authority (TRA). |
| 2-3 March, 2006 | Lebanon's fourth Working Party meeting is held.<br><br>Investigation into a unified tax law and a local investment protection law begins. Privatization and anti-monopolistic policies are discussed.<br><br>Working Party stresses the importance of removing fixed price regulations on commodities (i.e. bread and petroleum gas) and proceeds with efforts in compliance with Article III (National Treatment on Internal Taxation and Regulation) and Article XI (General Elimination of Quantitative Restrictions of GATT 1994). |
| 13 April, 2006 | The Council of Ministers removes discriminatory tobacco tax exemptions. |
| 16 October, 2006 | The Ministry of Economy & Trade cancels previous decisions on profitability controls. |

| | |
|---|---|
| **20 October, 2006** | The Council of Ministers removes unjustified import licenses for silk, juices and pajamas. |
| **28 October, 2006** | Parliament ratifies Law on Plant Quarantine. |
| **31 October, 2006** | Parliament ratifies the Law on Anti-dumping, Countervailing and Safeguard Measures. |
| **28 April, 2007** | The Ministry of Labor removes restrictions on import/export activities for non-Lebanese. |
| **3 May, 2007** | Lebanon's fifth Working Party meeting is held.<br><br>Working Party begins drafting Final Report. |
| **27 September, 2007** | Lebanon removes import licenses for wheat and wheat derivatives. |
| **9 October, 2007** | The Council of Ministers approves the decree of implementation of the Trade Remedies Law. |
| **26 February, 2009** | Lebanon's sixth Working Party meeting is held. |

## Table 32: List of Enacted Laws

| Law | WTO Agreement(s) | Status of the Law |
|---|---|---|
| **Law on Anti-dumping, Countervailing and Safeguard Measures (Trade Remedies Law)** | Agreement on Anti-Dumping<br><br>Agreement on Safeguards<br><br>Agreement on Subsidies and Countervailing Measures | Ratified by Parliament on 31 October, 2006. |
| **Implementing Decrees of Trade Remedies Law** | Agreement on Anti-Dumping<br><br>Agreement on Safeguards<br><br>Agreement on Subsidies and Countervailing Measures | The implementing Decrees of the Draft Law were approved by the Council of Ministers on Oct. 9, 2007. |
| **Law on Plant Quarantine: "SPS & Plant Quarantine" Law 778** | Agreement on SPS | Ratified by Parliament and published in the Official Gazette on 28/10/2006. |
| **Legislation to deal with discrimination in tax exemptions for tobacco** | Article III of GATT | Discrimination removed through Council of Ministers Decision 27 dated 13 April, 2006 to implement the excise duties on locally produced tobacco products. |
| **Legislation to remove unjustified import licenses** | Agreement on Import Licensing Procedures | Inconsistency with WTO Agreement removed. Unjustified import licenses imposed by Decision No. 1/33 Ministry of Industry, dated 28 October, 1977 on silk, juices and pajamas falling under HS 051199, 20091190, 20091990, 20093090, 20097090, 500100, 500390, 500400, 620721, 620722, 620729, 620821, 620822, 620829 were removed by Minister of Industry Decision 75/1 dated 20 October, 2006. |
| **Transfers the regulatory activities of the Regie Libanaise des Tabacs et Tombacs to the government** | | Law 157 dated 27 December, 1995 has transferred the regulatory activities of the Regie to the Government. Accordingly, the commercial functions of the Regie are totally separate from the Government's regulatory activities. |
| **Cancelling Ministry of Economy and Trade Decisions on profitability controls** | None | Decisions No. 277/1 of 15 June, 1972 and No. 75 of 27 April, 1983 on profitability controls have been repealed by Minister of Economy and Trade Decision 263/1/A.T. dated 16 October, 2006. |
| **Article 7 of the Internal Regulation of the Order of Pharmacists dated 4 November 1958) authorizes the setting of minimum prices** | Article XI of the GATT. | Repealed by Article 80 of Decree No. 394 dated 1 August, 1994 which amended the Internal Regulation of the Order of Pharmacists dated 4 November, 1958. |
| **Amending Decision No. 147/1 dated 3 December 2002 to remove the restriction on foreign natural persons to engage in import/ export activity** | | Restriction removed. MOL new Decision 29/1 dated April 28, 2007. |
| **Removal of Import License on Wheat and derivatives** | None | Decision 38/1 dated 27/9/2007 removed the import license on Wheat and wheat derivatives. |

| | | |
|---|---|---|
| **New telecom decrees establishing a regulatory body** | None | The Telecommunications Regulatory Authority (TRA) has been established under the Telecommunications Law No. 431 dated July 22, 2002.<br><br>Decree 14264 on Administrative and Financial Regulations was enacted on 4/3/2005. |

## Table 33: Pending Laws

| Law | WTO Agreement(s) | Status of the Law |
|---|---|---|
| **International Trade and Licensing Law** | Agreement on Import Licensing Procedures | Currently pending approval by last Parliamentary Committee (Administration and Justice) before being sent to General Parliamentary Assembly for ratification. |
| **General Food Law** | Agreement on SPS | Draft Law was approved by Council of Ministers on 12 June 2006 and was transferred to Parliamentary Committees. |
| **Law on Standards, Technical Regulation and Conformity Assessment Procedures (revised version)** | Agreement on TBT | Currently under review in Joint Committee sub-committee. |
| **Law on Standards, (revised version)** | Agreement on TBT | Revised Draft sent to Council of Ministers July 2009. |
| **Law on Animal Quarantine** | Agreement on SPS | Law already approved by the Agriculture Parliamentary Committee on 5 November, 2003. |
| **Removal of NSSF Certificate requirement for importing/exporting activity of established traders** | None | The draft decree cancelling article 65.2 of NSSF Decree 13955 dated 26/9/1963, thus removing the requirement to produce the clearance certificate from NSSF for import/export activity is currently in Parliament. |
| **Amendments to the Budget Law to unify/transform the *ad valorem* fees for services rendered** | Article VIII of the GATT | Approved by Minister of Finance (letter 2106 dated 12 November 2005). Table 9 of draft Budget law 2008 has been amended cancelling import license fees.<br><br>The budget Law 2008 was approved by Council of Ministers on 27/10/2007 and sent to Parliament for ratification. |
| **Competition Law** | None | Draft approved by the Council of Ministers and sent to parliament on the 27 October, 2009. |
| **Additional IPR legislation to modernize Law No. 2385/24 "Laws and Systems of Commercial and Industrial Property":**<br><br>- **The Law on Trademarks (TM)**<br>- **The law on Geographical Indications (GIs)**<br>- **The Law on Unfair Competition (UC)**<br>- **The Law on Industrial Designs (ID)** | TRIPS | The Draft Law on TM was approved by the Council of Ministers and sent to Parliament 27 October, 2007.<br><br>The draft law on GIs was approved by the Council of Ministers and sent to Parliament May 21, 2007.<br><br>The draft Law on UC was sent on 31 March 2006 to the Ministry of Public Health for completion and comments.<br><br>The draft Law on IDs was approved by the Council of Ministers and sent to Parliament 27 October, 2007. |

# APPENDIX B – STAKEHOLDER INTERVIEW GUIDELINE AND RESULTS

## A. STAKEHOLDER INTERVIEW GUIDELINE

### 1.) Main changes over the past 10 years

According to you what were the main changes that affected your business over the last decade (2000-2010)?

### 2.) Lebanon trade agreements and policies

Did the following policies (EuroMED partnership agreement (2002), GAFTA agreement (2005), 2000 – 2003 unilateral tariff reductions) affect your Business and how?

**Additional questions / check list if necessary:**

- What are the changes? (Change type of product production, quality, volume, partners, outlets etc…)
- How did you make use of these changes? Did any government entity or association support you?
- How long did it take for these changes to take place?
- Have these changes rendered favorable results? Were there tradeoffs? What are they?
- Were your competitors able to make these changes?

### 3.) Lebanon accession to the WTO

What do you perceive to be the biggest impact of Lebanon's accession to the WTO, in general terms with an emphasis on your own business?

Do you think WTO accession will force you to undertake changes in your businesses operations?

**Additional questions / check list if necessary:**

- What are the changes? (Change type of product production, quality, volume, partners, outlets etc…)
- Have you already planned for these changes? Do you expect help from the Government?
- Do you expect positive results? What do you think the tradeoffs could be?
- What do you think your competitors will do?

### 4.) Legislation, regulations and standards

The WTO accession process envisages the enactment and the implementation of several laws and regulations (Import licensing law, competition law, geographical indicators law and others). Will these changes affect your business? How?

What kind of legislation and/or regulation would you want to be implemented?

**Additional questions / check list if necessary:**

- What are the changes? (Change type of product production, quality, volume, partners, outlets etc…)
- Are you under any certification schemes (ISO, and other standards)? What is useful? How?
- Are these laws beneficial to your overall competitiveness? How?

**5.) Competitiveness, Capital and labor mobility**

Do you anticipate that your business will be competitive post WTO accession?

If not, will you be able to move your capital to another sector? Do your workers have the skills to find jobs in another sector?

**6.) Expectations for the future**

What are you expectations for the future? What are your demands? What do you think needs to be changed for your company/industry to benefit further?

**7.) Question for Interviewer Team**

Do you have any questions you would like to ask us?

## B. STAKEHOLDER INTERVIEW RESULTS

***The following section presents the stakeholder opinions, perceptions and feedback on Lebanon's WTO accession. This does not represent the opinion of USAID, Booz Allen Hamilton, nor the Lebanese Economic Association.***

### Rene Moawad Foundation and YMCA

*Stakeholder's profile*

The Rene Moawad Foundation (RMF) is a Lebanese non-profit and non-governmental organization that aims to build long-term sustainability through the development of civil society, capacity building and democracy. Since the establishment of the RMF's Agricultural Center of the North (CAN) in 1996, major efforts have been directed towards the rural areas of Lebanon, helping improve the socio-economic conditions of farmers and helping them hone their competitive edge. The RMF addresses a wide range of issues in agriculture, including high costs of production, standards and quality control, lack of commercial structures, and public policy. In addition to the agriculture sector, the RMF directs and sponsors projects focused on the development of education, health, economy and human rights, targeting women, youth, and the underprivileged.

The "Young Men's Christian Association" (YMCA Lebanon), works as a non-partisan NGO directing its efforts towards people in-need, regardless of race, religion or beliefs. The YMCA has several active departments including child rights, entrepreneurship, environment, agriculture and women's empowerment. Similar to the RMF, the YMCA had specific initiatives towards the rural and agricultural sector of Lebanon.

Since the YMCA began its efforts in the agricultural sector in 1995, they have had a significant impact on the sector's product and market development by improving agricultural practices and the livelihood of rural women in Lebanon. The YMCA has worked with rural farmers to modernize their agricultural practices, making them consistent with global market standards and regulations. The YMCA has opened commercial markets to rural women by educating them on how to transform their traditional home processed food products into marketable, exportable, labeled and standardized items. The YMCA has opened business opportunities for female entrepreneurs, giving them independence and empowerment. By standardizing the agricultural processes and encouraging entrepreneurship, the YMCA has been a driving force in building Lebanon's agricultural sector as an international competitor.

*Impact on stakeholders and their feedback on WTO requirements*

For the past 15 years, the RMF and the YMCA have made similar efforts towards promoting development amongst rural and small-scale agricultural producers. Accordingly, they have consistent opinions on the potential negative impacts of WTO accession, and the roadblocks to fulfilling WTO requirements.

The RMF and the YMCA expect that the Lebanese agricultural sector will be unable to compete with the increased import competition from trade liberalization due to fragmentation and high costs of production. Fragmentation, the existence of multiple small-scale farmers, creates overwhelming market competition and low profit margins due to low sale volumes. The RMF and the YMCA's negative viewpoint on WTO accession is based upon Lebanon's current struggle to establish itself with neighboring Arab and European countries as a result of the European Union Association Agreement and GAFTA agreements. Local farmers lack government support to compete against subsidized agriculture in neighboring Arab and European countries, which will become an even greater problem when Lebanon is to compete with WTO member countries who are government subsidized.

While WTO accession may be detrimental in the short run, the RMF and the YMCA believe that a combination of technology innovation, and high quality products targeted at niche markets (local and export), is the only way for the Lebanese agricultural sector to be competitive. Specialization in high quality products and/or value-carrying labels (i.e. rural women cooperative, handmade and/or traditional recipes labels and brands, etc…) has already begun to open niche export markets.

While Lebanese farmers are aware of the potential export opportunities associated with such trade agreements, the RMF and the YMCA have found that they are not yet ready to fulfill implicit requirements, such as producing standardized products in exportable quantities.

The RMF and the YMCA have helped farmers and small food producers adopt recognized standards and improved production methods such as standardized recipes for food cooperatives and Global Good Agricultural Practices (GAP) standards for particular products, e.g. the olive oil industry. However, the entire agriculture market is still premature and underdeveloped to conform to international conditions. The RMF and the YMCA raise political instability as a factor discouraging the sector's adaptation of innovative farming practices. With limited security guarantees and an unstable political situation, farmers are forced settle for their current farming practices rather than take on what they feel is a risky investment

**Import / Export Company**

*Stakeholder's profile*

The interviewed stakeholder, referred to in the following sections as "The Company", is a marketing and distribution firm that aims to become a leading agricultural supplier in the region through compliance with high international standards and cutting edge technology. Since its inception in 2010, the Company has expanded its business from large-scale production of various fruits, vegetables and poultry products to include commercial operations. The commercial line markets a unified brand of fruits and vegetables using produce that is internally produced in addition to high quality products from external producers.

*Impact on stakeholders and their feedback on WTO requirements*

The Lebanese agricultural sector can be conceptually divided into two sides:

- Small-scale agri-businesses, who are trying to find their place in the general trend towards high quality products; and
- Large vertically integrated companies focusing on agricultural production, postharvest handling and trade.

The Company is categorized as the latter, a fast capital accumulation entity. The large companies are faced with challenges and opportunities if WTO accession is to take place. A challenge for The Company will be holding on to the local market from an influx of imports that are produced and sold at a lower cost. For example, The Company has already stopped providing fresh oranges to local agro-industrials since the latter have opted for production of juices that are made from lower-priced and Brazilian-made concentrate. An additional challenge is the high transportation costs required to distribute foreign products. The lack of freight channels and high cost of airfreight services have hindered Lebanon's progress in the European market.

However, their existing large scale productions and present adaptation to trade regulations will enable them compete with global quality standards at a faster pace than small-scale businesses. Opportunities for specialization in certain crops, animal products, or specific high value markets in Europe such as fresh herbs to Finland have been very successful. Additionally, a narrowing local market demand could be offset by the premium price paid for Lebanese exports in the Gulf region.

According to the interviewee, WTO accession – and the implementation of the trade agreements with Europe and the Arab countries – could offer significant opportunities to expand the Lebanese agricultural sector. In spite of these benefits, the political situation is discouraging, and further investments at this time are too risky to consider.

**Dairy Producers**

*Stakeholders' profile*

The interviewed dairy producer has established itself as one of Lebanon's main producers of milk, dairy, and juice products. It began operations from their own farms and manufacturing plant in the Bekaa region, launching itself as the sole provider of Ultra-high-temperature (UHT) milk in Lebanon via a franchise agreement with a foreign dairy company. Current products are intended for the local market, with no export operations.

*Impact on stakeholders and their feedback on WTO requirements*

The interviewee feels that WTO accession will have minimal shocks on the local dairy producers due to customer loyalty and product shelf life. The national cheese and yogurt products cannot be replicated by outside producers. Although imports could be of better quality, they will compete outside of the ethnic food market, and different ingredients will not appeal to Lebanese tastes nor provide the local market with the authenticity, heritage, or tradition they seek. An additional buffer to WTO accession market shock will be the short product shelf life of fresh dairy.

The main challenge for Lebanese dairy producers will be competing with high quality, low cost imports of non-traditional and long life products such as cheese, yogurt, and UHT milk. To compete on quality will require capital investments, which will decrease margins and be difficult for many small producers. To compete on price will require additional capital investments in very limited real estate to expand and take advantage of economies of scale. Therefore, even if the funding was provided, expansion is restricted. This lessens the net impact of having Lebanese educational institutions that cultivate a market of highly qualified and skilled labor. Indeed, ability and knowledge are in abundance and capability to innovate is not the problem. Investment cost and the lack of real estate in Lebanon will force many producers who have no available funds to exit the market.

This stakeholder believes that WTO accession will benefit Lebanon's dairy producers if they re-export cheap imports from neighboring countries. Importing raw materials such as fresh milk, processing the products locally, and then re-exporting these products abroad will lower production costs and increase profit margins. Given that Syria would be the closest and most cost-effective source; this producer believes that WTO accession and transparent trade agreements with Syria would be beneficial.

**Canned Food Producer**

*Stakeholder's profile*

The canned food producer is one of Lebanon's leading processed food manufacturers and a large foreign exporter. Since its market entrance in the late 1970's, the interviewee has grown its business to manufacture over 100 products, exporting a third of its production to the Arab Gulf, Europe, and North America. The producer has effectively penetrated foreign markets through membership in a large agro-industrial partnership, and vertical integration of their processing company and distribution group.

*Impact on stakeholders and their feedback on WTO requirements*

The interviewee sees WTO accession as an opportunity to serve the demand for traditional Lebanese products, yet finds a challenge in competing with import quality and price. Of important note is that Lebanon's traditional product demand is slowly narrowing due to an eroding reputation and brand image. To keep this competitive advantage Lebanese agro-industrial's will need to invest in modern brand management practices to keep pace with international brands, and they must further specialize their products to promote the novelty of purchasing Lebanese products. According to the producer, locally produced goods will struggle to compete with imports on price and quality. Lebanese producers have a high cost of production which constrains their ability to lower prices. Also, the space for industry expansion is quickly diminishing which prevents them from gaining economies of scale through increased production.

The interviewee believes that WTO accession will make production costs cheaper and propel sales of Lebanese traditional products by expanding their international export markets. Low-cost imports of raw materials will benefit manufacturers with reduced production costs. Lebanese agro-industrials continue to maintain presence in the market because of the local and foreign demand for "traditional Lebanese" food products, which currently fetch a premium market price. The combination of cheaper imported raw materials and a larger export market will increase profit margins and sales volume.

The interviewee believes that Lebanon has cost and feasibility barriers to meeting WTO requirements. Compliance with standards, including export testing and certifications, constitute significant additional costs for export activity. Lebanon lacks certified laboratories required for compliance, which creates a barrier to accessing certain markets. For example, the profit margin from exporting to countries like Iraq, who demand quality control checks, is greatly decreasing, making such exports less cost-effective.

An additional issue will be the transition from ISO Lebanese standards to WTO global standards. The interviewee indicates that Lebanese standards are "more lenient" relative to global standards, allowing local producers to "cut corners", while still guaranteeing a minimum quality of the product.

The interviewee suggested that in the absence of accredited laboratory and certification bodies in Lebanon, it might be more efficient for agro-industrials to import certified raw materials and export finished products. This could be further promoted through WTO accession.

**Producer of Household, Institutional and Personal Care Products**

*Stakeholder's profile*

Established in the early 1970's, this stakeholder has become one of Lebanon's largest manufacturing companies in consumer goods, producing personal hygiene disposables, household tissues and plastics, janitorial supplies and medical disposables. The production is ISO certified and the company has a marketing and product innovation department.

*Impact on stakeholders and their feedback on WTO requirements*

The interviewee does not expect WTO accession to have a significant impact on its business. The basis for this opinion is the already low custom duties (3% to 5% on more than 85% of imported products), the existence of free trade agreements with Lebanon's major partners (EU and MENA), and the high bulk density of household products which are not easily transportable. Given the nature of the product, the firm does not export and competing imports are limited, mitigating potential impacts of WTO accession. With little focus on expansion into export trade, business initiatives have resulted in the opening of additional manufacturing plants in the region.

According to the company's head consultant, Lebanese law permits complete foreign ownership of industrial plants, therefore foreign companies could expand operations in the same way that local businesses had previously. Business operations could be negatively impacted if foreign companies with more capital opened manufacturing plants in Lebanon. However, Lebanon is a very small market with relatively high real estate and production costs, making it unattractive for foreign industrial investors. If however, WTO accession imports were to gain some of the local market share, responding by opening additional manufacturing facilities for local producers will also be difficult due to high real estate costs. This handicaps the local industry and limits local expansion and will require local producers to open manufacturing plants in neighboring countries in order to expand.

**Family-Run Furniture Manufacturer**

*Stakeholder's profile*

Located in the furniture district of Tripoli, this interviewee is a small family run furniture business that has been in operation for over 40 years. The manufacturer specializes in the Lebanese traditional style of furniture which can be bought through a show room or custom-made. Production involves natural wood and intricate designs. .

*Impact on stakeholders and their feedback on WTO requirements*

Custom-made furniture constitutes an important share of the company's turnover and offers the largest profit margins. Part of this production is exported to Arab countries and to Europe, and usually to Lebanese expatriates. WTO accession induced export opportunities would have a positive impact on the industry. However, investment and demand for Lebanese furniture are being negatively affected by the increasing political instability in the Arab region. In particular, the political situation in Lebanon and in Tripoli poses an obstacle for foreign and domestic investment. This furniture manufacturer is reticent about new investments and/or bank loans in such turbulent political conditions.

The furniture manufacturer believes that the tariff reductions associated with WTO accession will have a direct negative impact on their industry which is already under pressure from political instability. Currently, small family businesses in Lebanon struggle to compete with the 30% import tariff on furniture from Malaysia, China, and other countries whose prices are considerably lower than those of Lebanese producers. If WTO accession maintains tariffs at the *status quo*, the company can only remain competitive by relying on orders for high value-added and customized pieces.

**Maritime Services Company**

*Stakeholder's profile*

The stakeholder is a family-run and privately owned shipping company based in Tripoli that provides its services mainly across the Mediterranean on the maritime lines between southern Europe and North Africa, as well as from and to the port of Beirut. The company specializes in the transport and shipment of cargo by sea, and handles transport and shipment as well as freight forwarding, chartering, brokerage and customs clearance for all types of goods. Since its establishment in the early 1980's, it has grown from one to five ships, despite mentioning difficulties in accessing credit.

*Impact on stakeholders and their feedback on WTO requirements*

The stakeholder believes that WTO accession will not have a significant impact on their business, as they are already successfully competing with international maritime companies in Southern Europe and Northern Africa. In the Syrian dominated ports of Tripoli and Tartous, the interviewee is unable to offer as low prices but is able to compete on quality and more dependable services. Liberalizing the market in Lebanon and removing the restriction on complete foreign ownership of maritime service companies in this sector are not seen as a threat either; according to the interviewee, the Lebanese market and ports are not attractive to foreign ship-owners.

The main challenges for the Lebanese maritime service industry is the political instability and the difficulty in gaining access to finance. They have lost many business opportunities due to the unrest in Tunisia, Egypt and Libya. Moreover, the difficulty in accessing credit to expand their fleet is perceived as the main obstacle to further growth.

**MENA Food Safety Associates (MEFOSA)**

*Stakeholder's profile*

MENA Food Safety Associates (MEFOSA) is a privately owned consulting company established to help companies gain access into international markets. MEFOSA assists companies in developing a competitive edge whilst complying with local and foreign government regulations. MEFOSA audits and adjusts client companies' procedures and practices, and provides training services in internationally renowned standardized systems, granting them certified acknowledgment of the quality and safety of their products.

*Impact on stakeholders and their feedback on WTO requirements*

MEFOSA believes that the Euro-med partnership, the GAFTA agreement and WTO accession will open many doors and will allow for tremendous benefits to this firm.

Based on their 10 years of experience helping Lebanese SMEs comply with international standards, Lebanon will have difficulties complying with WTO requirements due to costs and misconceptions. Many SMEs have stopped working with MEFOSA because they were unable or unwilling to make the costly investments required to comply with international standards, such as renovating a factory. Also, misconceptions and vague understandings of trade agreements have made Lebanese firms indifferent towards the benefits of trade liberalization.

**CCIABML and the American Lebanese Chamber of Commerce (AmCham)**

*Stakeholders' profile*

The Chamber of Commerce, Industry and Agriculture of Beirut and Mount Lebanon (CCIABML) was established in 1887 and is now Lebanon's primary, and largest economic organization, representing about two thirds of the economy. The Chamber's two main focus areas are promoting the country's exports, and developing Lebanon's ability to attract foreign investment by facilitating contacts between Lebanese and foreign business establishments. Both goals of the Chamber necessitate its direct involvement in Lebanon's negotiations with the WTO. With over 10,000 Lebanese member firms, of which most are SMEs, the CCIABML acts as the major representative of Lebanon's private sector. It is an independent legal semi-public entity managed by a board of 24 members, 16 are elected by the Chamber's General Assembly and 8 are appointed by the government.

The American Lebanese Chamber of Commerce (AmCham) is global non-profit organization supported by the U.S. Department of Commerce. In Lebanon, the AmCham is legally recognized by the Ministry of Economy & Trade and is the official liaison office for trade between Lebanon and the United States, Lebanon's leading trade partner. The AamCham has been responsible for several breakthrough agreements between Lebanon and the United States, and continues to lobby for facilitated trade in hopes of further developing economic, industrial, financial and tourism relations between the two countries. The AmCham provides a platform for trade negotiations amongst Lebanese and American entrepreneurs, exporters and policy makers, from the heart of Beirut.

*Impact on stakeholders and their feedback on WTO requirements*

According to the CCIABML and the AmCham, the existing trade agreements have given Lebanon many opportunities. The country would greatly benefit from WTO accession and the requirements for membership. However, many of these benefits have gone unrealized by Lebanon due to negative misconceptions about WTO accession and foreign trade involvement.

The Lebanese market is filled with firms which own exclusive rights to certain imported commodities and prohibit competition. WTO accession will prohibit monopolization and exclusivity, creating a healthier business environment and benefiting small companies.

As a result of previously unsuccessful trade agreements, Lebanon has little interest in putting effort into WTO requirements when they have yet to receive major benefits from prior agreements. For example, the unsystematic implementation of GAFTA did not impose anti-dumping regulations, a main concern of Lebanese producers, causing many bilateral agreements, such as Egypt and Jordan, to be de facto. Also, there are still many export obstacles that remain in regards to the EU-Lebanon Association Agreement such as transport and shipment facilities, food safety regulations, and standardized packaging requirements.

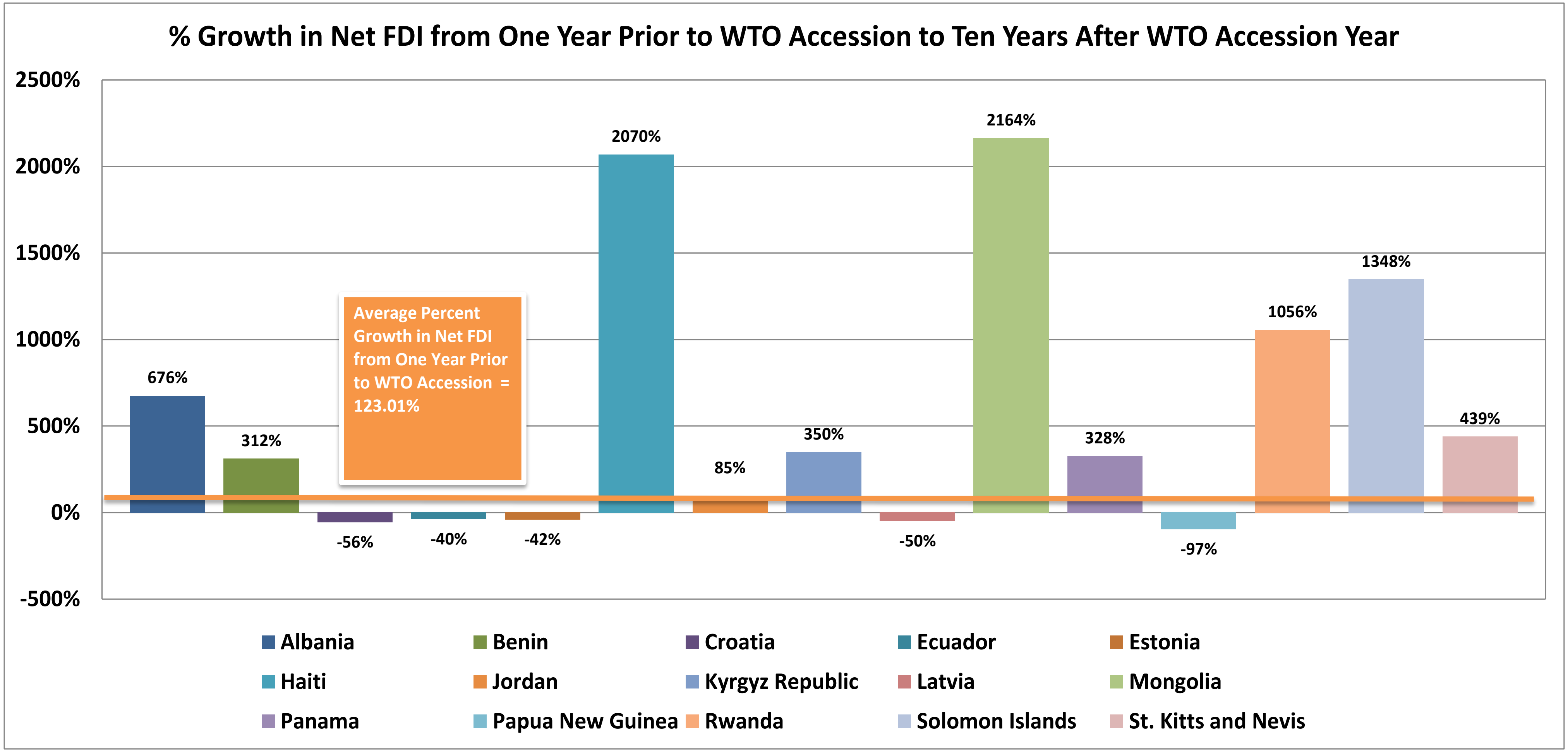
There is a misconception that foreign involvement will be a detriment to the local economy. It is perceived that WTO accession will completely open the Lebanese market and wipe out local production. In reality, WTO requirements will set standards and regulations that will necessitate the improvement of local production as well as protect the local market from non-conforming imports. Furthermore, Lebanon already imports in abundance and WTO accession is not going to change that. Average customs duties are already less than five per cent. Only 15% of imported goods fall between the 20 to 35% tariff range.

According to the CCIABLM and AmCham, Lebanese producers are already able to export to countries that impose strict regulations as well as ones that do not. Attaining labels and certification are an added value for Lebanese products. While this may negatively impact local producers who are unable to comply with these regulations, this is the natural process of market economics. In the long run, building international competition will be healthy for the Lebanese economy.

The CCIABLM and AmCham Lebanon believe that WTO membership will facilitate foreign investment. Complying with WTO requirements will give foreign investors the confidence and security to invest in Lebanon.

## APPENDIX C - DATA TABLES

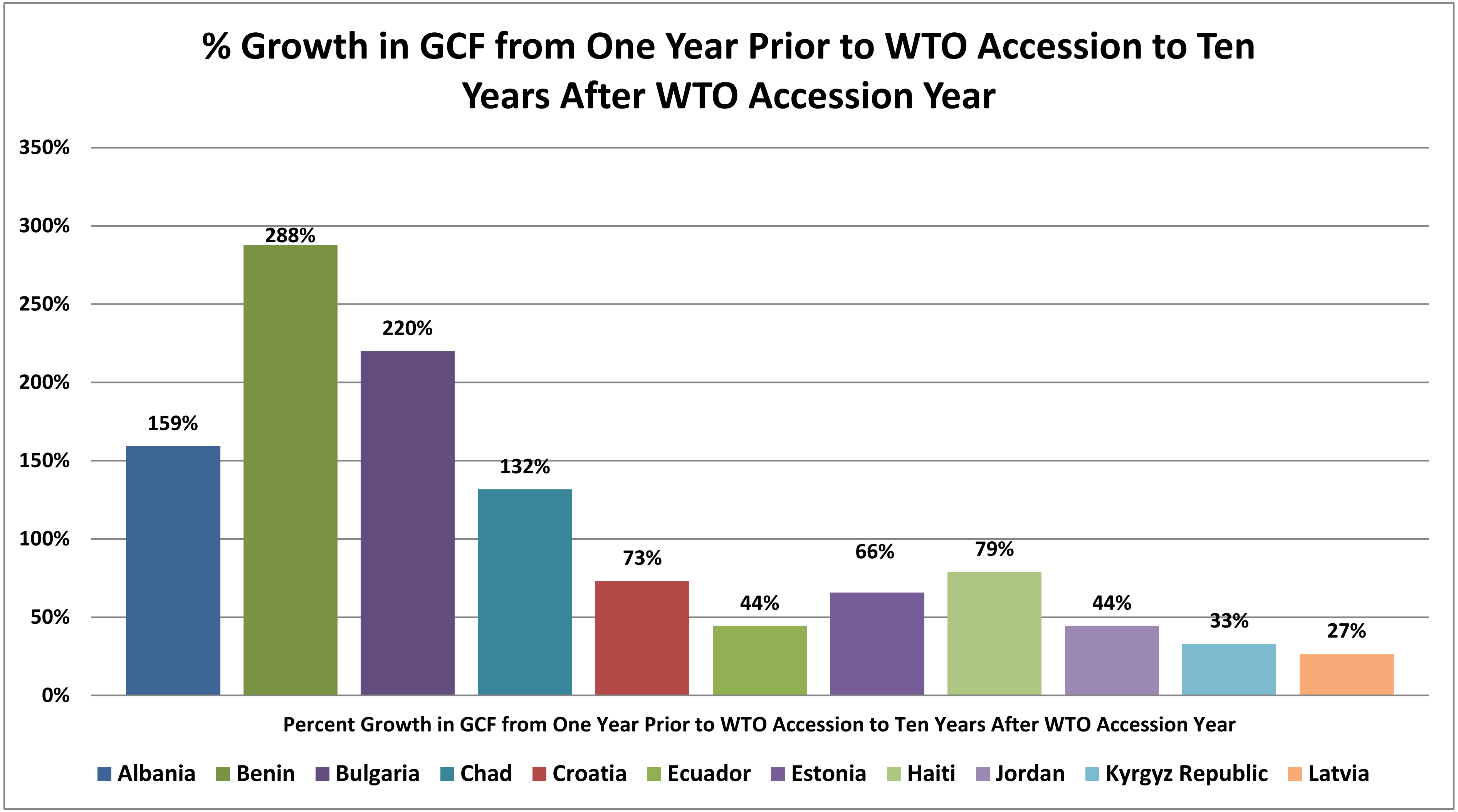
Figure 25: % Growth in Net FDI for 10 Years Following WTO Accession



## Table 34: FDI Countries' World Political Stability Index in Year of WTO Accession

| Country | Voice & Accountability | Political Stability & Absence of Violence and Terrorism | Government Effectiveness | Regulatory Quality | Rule of Law | Control of Corruption | World Bank Political Stability Index in Year of WTO Accession (Countries Pre-2001) |
|---|---|---|---|---|---|---|---|
| Albania | -0.28 | -0.61 | -0.83 | -0.27 | -1.24 | -0.83 | -0.68 |
| Angola | -1.65 | -2.11 | -0.84 | -1.45 | -1.60 | -1.16 | -1.47 |
| Benin | 0.13 | 0.97 | -0.41 | -0.20 | -0.15 | -0.93 | -0.10 |
| Croatia | 0.41 | 0.24 | 0.31 | -0.05 | 0.05 | -0.21 | 0.13 |
| Ecuador | -0.15 | -0.78 | -0.63 | -0.19 | -0.47 | -0.91 | -0.52 |
| Estonia | 0.96 | 0.76 | 0.77 | 1.34 | 0.58 | 0.67 | 0.85 |
| Fiji | -0.12 | 0.82 | -0.14 | -0.01 | 0.21 | 0.44 | 0.20 |
| Gambia, The | -1.28 | 0.43 | -0.61 | -0.94 | 0.14 | -0.44 | -0.45 |
| Georgia | -0.26 | -0.94 | -0.73 | -0.42 | -1.15 | -0.88 | -0.45 |
| Grenada | 0.46 | 0.84 | 0.65 | 0.52 | 0.19 | 0.90 | 0.59 |
| Haiti | -0.86 | -0.93 | -1.21 | -1.05 | -1.49 | -1.11 | -1.11 |
| Jordan | -0.25 | -0.11 | -0.04 | 0.25 | 0.38 | 0.03 | 0.04 |
| Kyrgyz Republic | -0.73 | -0.23 | -0.13 | -0.08 | -0.68 | -0.49 | -0.39 |
| Latvia | 0.71 | 0.36 | 0.23 | 0.74 | 0.16 | -0.30 | 0.32 |
| Mongolia | 0.50 | 0.28 | -0.30 | -0.11 | -0.05 | -0.24 | 0.01 |
| Panama | 0.50 | 0.24 | 0.36 | 0.82 | -0.17 | -0.16 | 0.26 |
| Papua New Guinea | 0.12 | -0.77 | -0.28 | -0.50 | -0.68 | -0.35 | -0.41 |
| Rwanda | -1.52 | -2.07 | -1.20 | -1.47 | -1.52 | -0.93 | -1.45 |
| Solomon Islands | 1.03 | 0.97 | #N/A | #N/A | #N/A | #N/A | -0.22 |
| St. Kitts and Nevis | 0.96 | #N/A | #N/A | #N/A | #N/A | #N/A | 0.12 |

**Figure 26: Percent Growth in GCF Ten Years after WTO Accession**



## Table 35: GCF Countries' World Bank Political Stability Index in Year of WTO Accession

| Country | Voice & Accountability | Political Stability & Absence of Violence and Terrorism | Government Effectiveness | Regulatory Quality | Rule of Law | Control of Corruption | World Bank Political Stability Index in Year of WTO Accession (Countries Pre-2001) |
|---|---|---|---|---|---|---|---|
| Albania | -0.28 | -0.61 | -0.83 | -0.27 | -1.24 | -0.83 | -0.68 |
| Angola | -1.65 | -2.11 | -0.84 | -1.45 | -1.60 | -1.16 | -1.47 |
| Benin | 0.13 | 0.97 | -0.41 | -0.20 | -0.15 | -0.93 | -0.10 |
| Bulgaria | 0.39 | -0.21 | -0.31 | -0.12 | -0.35 | -0.78 | -0.23 |
| Chad | -1.04 | -1.05 | -0.67 | -1.30 | -0.93 | -0.93 | -0.99 |
| Congo, Dem. Rep | -1.90 | -2.91 | -1.97 | -2.41 | -2.15 | -1.90 | -2.21 |
| Congo, Rep. | -1.66 | -1.69 | -1.19 | -1.22 | -1.54 | -1.14 | -1.41 |
| Croatia | 0.41 | 0.24 | 0.31 | -0.05 | 0.05 | -0.21 | 0.13 |
| Ecuador | -0.15 | -0.78 | -0.63 | -0.19 | -0.47 | -0.91 | -0.52 |
| Estonia | 0.96 | 0.76 | 0.77 | 1.34 | 0.58 | 0.67 | 0.85 |
| Fiji | -0.12 | 0.82 | -0.14 | -0.01 | 0.21 | 0.44 | 0.20 |
| Gambia, The | -1.28 | 0.43 | -0.61 | -0.94 | 0.14 | -0.44 | -0.45 |
| Georgia | -0.26 | -0.94 | -0.73 | -0.42 | -1.15 | -0.88 | -0.45 |
| Grenada | 0.46 | 0.84 | 0.65 | 0.52 | 0.19 | 0.90 | 0.59 |
| Haiti | -0.86 | -0.93 | -1.21 | -1.05 | -1.49 | -1.11 | -1.11 |
| Jordan | -0.25 | -0.11 | -0.04 | 0.25 | 0.38 | 0.03 | 0.04 |
| Kyrgyz Republic | -0.73 | -0.23 | -0.13 | -0.08 | -0.68 | -0.49 | -0.39 |
| Latvia | 0.71 | 0.36 | 0.23 | 0.74 | 0.16 | -0.30 | 0.32 |

## APPENDIX D - THE STRUCTURE OF A TYPICAL OXFORD ECONOMICS MODEL

A typical OE model is designed and calibrated to reflect the important features and behavior of an economy. It is built around a conventional macroeconomic framework that identifies both the key components of aggregate demand and the evolution of productive capacity in an economy. Productive capacity is affected by both government spending and investment, and also by factors such as institutional quality, technological change (both are inputs to total factor productivity) and educational attainment. Imbalances between demand and supply then exert inflationary pressure in the economy, with feedbacks to competitiveness, real incomes and government spending power. The key components of a typical OE model include:

- **Supply:** potential output for multiple industry sectors, capital stock, population;
- **Demand:** private and government consumption, investment, stock building;
- **Sectoral output:** sectoral GDP identified for main sectors: agricultural, manufacturing, utilities, construction, transport and communications, trade, public services and other services (data permitting);
- **Prices and the labor market:** inflation measures, average earnings, relative unit labor costs, employment, unemployment;
- **Financial sector:** exchange rates, interest rates, money supply;
- **Government finances:** detailed consolidated government revenues (including non-oil revenues) and expenditures, government budget position and financing;
- **Trade and balance of payments:** oil and non-oil exports/imports, current account, foreign direct investment, reserves, and assets.

The equation coefficients in a typical OE model are determined through a range of different calibration techniques:

- **Statistical estimation:** when data permit the use of econometrics;
- **Simple ratios:** for example, assuming general revenues grow in line with GDP;
- **Research from other studies on the economy:** for example, the inflation equation may be based on research from such studies;
- **Estimates of other countries:** for example, input-output coefficients estimated using production structure borrowed from other countries and then adjusted to reflect data available for a particular country; typically parameterization of the supply-side uses output from cross-country studies;
- **Alignment with economic theory:** for example, the permanent income hypothesis would suggest that if household income rises by 10 %, then this would be expected to feed through into a 10 % rise in consumption.

This method, which Oxford Economics has successfully applied in many economies (e.g., Azerbaijan, Egypt, UAE, and Algeria), is necessary to take account of relatively limited time series data available, concerns about data robustness, the changes in the economy's structure and the role of the shadow economy. But it should be emphasized that this type of calibration is not a mechanical process, but one that relies much more on knowledge and experience. It is, however, a systematic process; Oxford Economics' approach to calibrating a model can be thought of as a manual, iterative process, drawing on all available evidence from theory and research on the country and other comparable countries to produce what is the best representation of the economy.

***The supply-side*:** The supply side of the model is based on a production function approach in which the evolution of factor inputs (capital and labor), technological progress and institutional capacity/quality determine potential growth. The basic framework in most of the empirical literature on economic growth is a growth accounting approach which looks at the evolution of labor, capital and technological progress and their contribution to overall growth. In a standard Cobb-Douglas production function approach, output is determined by technological progress (A), capital (K,) and L is the labor force, H is a measure of educational attainment (adjusting for the quality of the labor force), J is a measure of the quality of capital and α is the capital share in production:

[1] $$Y = A(JK)^{\alpha}(LH)^{1-\alpha}$$

The model decomposes growth in output per worker [2] into the contributions of growth in capital per worker, increases in education per worker and the contribution of improvements in technological progress:

[2] $$y/l = \alpha(jk/l) + (1-\alpha)h + a$$

Growth is then modeled as driven by the expected evolution of capital (determined by the rate of depreciation of existing capital and the level of new investment relative to the existing capital stock); labor force growth including improvements in education and health; and Total Factor Productivity (TFP) growth, which is dependent on factors such as openness to international trade and institutional quality.

A program, project or investment can therefore contribute to the long-term growth in the economy either by directly adding to the stock of fixed capital (e.g., through investment in infrastructure); enhancing the quality of available labor (through spending on education or health); or by encouraging improvements in institutional capacity (e.g., through improved sectoral allocation of investment, or measures to improve contracting and procurement procedures).

The supply-side module determines the potential productive capacity of GDP at any point in time, that is, the level of output consistent with stable inflationary pressure. Actual GDP will vary from its productive potential in the short term according to the level of aggregate demand. However, this will lead to changes in inflation, which in turn will impact on competitiveness, household real incomes and the spending power of government. Those impacts will in turn lead to changes in aggregate demand such that, in the long term, GDP will move into line with productive potential. The implication is that long-term GDP growth and prosperity can only be enhanced by measures that enhance the supply-side of the economy.

***The demand-side*:** A key driver of aggregate demand in an economy is government expenditure. Therefore, the OE model includes government spending on wages and salaries, procurement, subsidies and other current spending; and spending on social transfers. In addition, spending is broken down into sectors such as education; health; housing; transport; power; media, youth and tourism; public administration and security; agriculture; and industry. In terms of private demand:

- Consumers' expenditure is determined by estimated disposable income (linked to wages, social transfers and other income);
- Private sector non-oil investment is mainly linked to developments in private sector GDP, but is also influenced by changes in competitiveness (measured by relative unit labor costs) and the level of real interest rates.

***Sectoral output*:** The industry module links final demand (i.e., government spending, household consumption, investment, exports) to the demand for output (and imports) in each sector. In making this link, the model also captures supply-chain or so-called Input-Output (I-O) relationships between sectors, so that expansion in one industry is reflected in increased demand for the products of other sectors.

***Prices and labor market*:** Inflation in the model is driven by the level of world inflation (food and manufactured goods) and the level of demand in the economy relative to productive capacity. The key price equation in the model is for the consumer price index (CPI), which takes the form:

[3] Dln(CPI) = 0.15*Dln(CPI(-1)) + 0.2*Dln(WPFOOD) + 0.2*Dln(WPFOOD(-1)) + 0.15*Dln(WMANP) +0.1*Dln(WMANP(-1)) + 0.2*Dln(ER) + 0.5*ln(OGAP);

where WPFOOD is the index of the world price of food, WMANP is the index of the world price of manufactured goods, ER is average earnings, ln(xxx) is the natural logarithm of (xxx) and D represents the difference operator (i.e., D(xxx)= xxx-xxx(-1)).

***Financial sector*:** Interest rates are assumed to be relatively ineffective as a tool of monetary policy in the model, and inflation is controlled primarily by exchange rate and fiscal policy. A more pronounced relationship may arise in the future in an economy between interest rates, on the one hand, and demand and inflation, on the other, as credit markets develop.

***Government finances*:** The structure of the government finance sector splits government revenues into: Tax revenue, including income, customs and excise duties, and "miscellaneous" tax receipts; other non-tax revenue.

Budget surpluses are accumulated in the model earning an investment return, while deficits are assumed to be funded by drawing down funds. It is straightforward to modify the model to allow deficits to be funded by the issuance of government debt, with associated interest payments. The model allows the calculation of a government budget balance, which is a key measure of the fiscal sustainability of government spending plans.

***Trade and the balance of payments*:** The balance of payments module is disaggregated into:

- Merchandise trade;
- Services trade;
- Net transfers; and
- Net factor income.

Exports are endogenously determined in the model as a function of the level of world demand and competitiveness. Imports are modeled as the difference between total demand and the level of output.

The model identifies separately FDI and non-FDl flows but the capital account module is largely exogenous. Meanwhile, the combined surplus/deficit on the current and capital accounts of the balance of payments is translated into movements in foreign exchange reserves

# APPENDIX E – ADDITIONAL SCENARIO RESULTS

## Scenario 4 Results – Simultaneous passage of the Competition Law and Increases in Market Access (12% VAT)

**GDP and Employment:** Adding to scenarios 1 and 2, we include increases in DI and FDI, assuming only high levels of political stability. Lebanon's GDP increases in total by approximately LBP 70 trillion, or an average of LBP 7 trillion per year, representing an average annual increase of approximately 11.6%. Lebanon's employment over this same time period increases in total by approximately 15 thousand jobs, representing an average annual increase of approximately 1%.

Figures 26 and 27 depict the growth rate in GDP and employment. Impacts to GDP are significant, directly attributed to increases in DI and FDI, leading to increases in disposable personal income, consumer expenditures, and increases in productivity and output by Lebanese firms. However, the growth in employment on a percentage basis lags GDP significantly explained by increases in imports, and a relatively low unemployment rate of approximately 7.9% projected for the Lebanese economy between 2012 and 2021.

These results are most easily compared to Scenario 5, high scenario, given that the assumptions are almost identical, assuming an increase in the VAT to only 12% versus 16%. However, it should be noted that with either decision by the Lebanese Government to increase the VAT to 12% or 16%, will have minimal long-term ramifications in terms of GDP and employment growth to Lebanon's economy going forward.

Figure 27 : Scenario 4 Results - GDP, Annual % Change

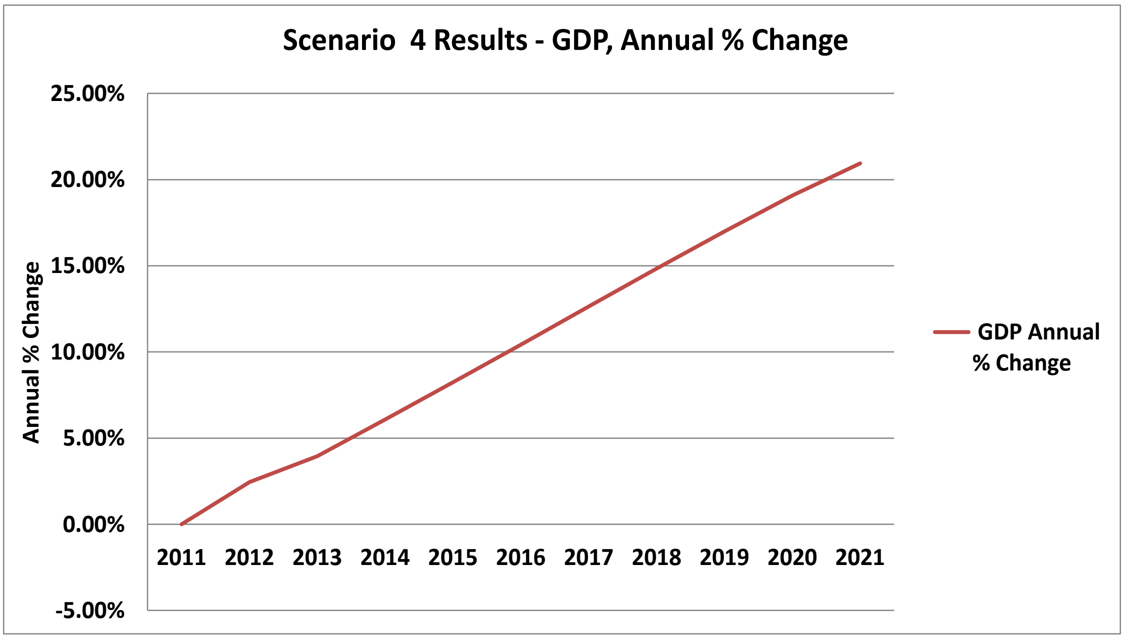
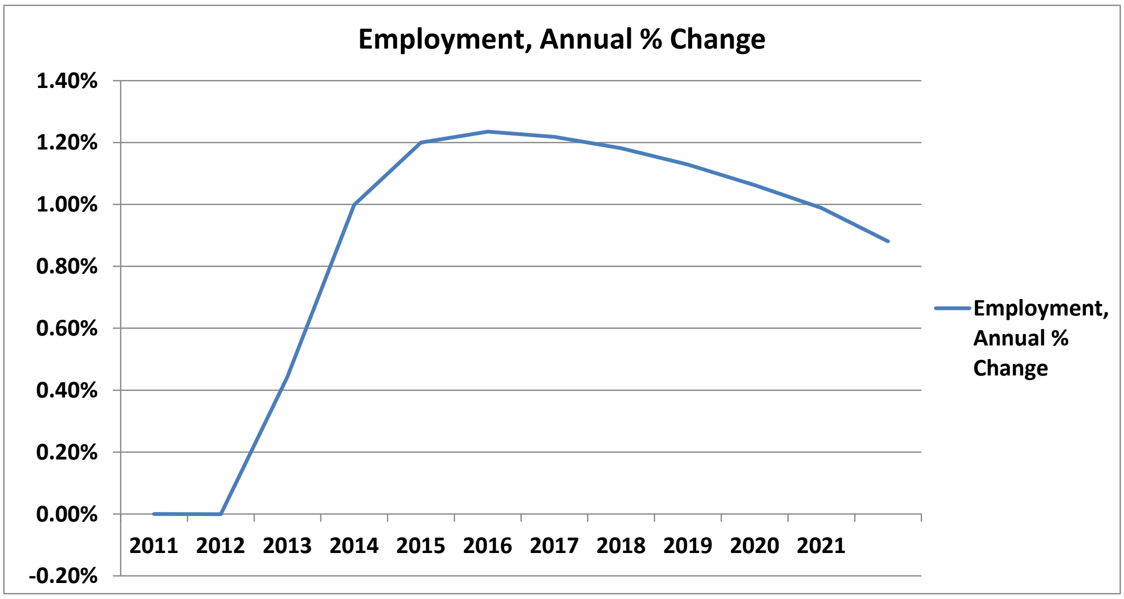


Figure 28: Scenario 4 Results - Employment, Annual % Change




## Sensitivity Analysis Results

Sensitivity analysis was conducted specifically on the results associated with Scenario 5, as this was the all-encompassing scenario (including changes to all five variables outlined in our methodology). Results were tested assuming low, medium and high levels of political stability (methodology described in section 6.4).

The level of political stability while notable is not projected to have a significant impact on GDP or employment growth. As seen in Figures 28 and 29 below, GDP increases within a range of approximately (10.5%-11.6%) on average annually, between low and high levels of political stability, respectively. Employment, lagging GDP in all three levels of political stability increases within a range of approximately (0.9-1%) on average. DI and FDI influence changes in GDP and employment most significantly; therefore, as alternate increases to DI and FDI are simulated, the results reflect the influence of these two variables on GDP and employment. Thus, any differences in the results between the three levels of political stability appear linear because sensitivity analysis was conducted specifically targeting increases in DI and FDI. Additional details on other indicators associated with increases in GDP and employment are presented in section 6.5.3 of this report, attributed specifically to Scenario 5, assuming medium levels of political stability.

Figure 29: Scenario 5 Sensitivity Analysis – GDP, Annual % Change

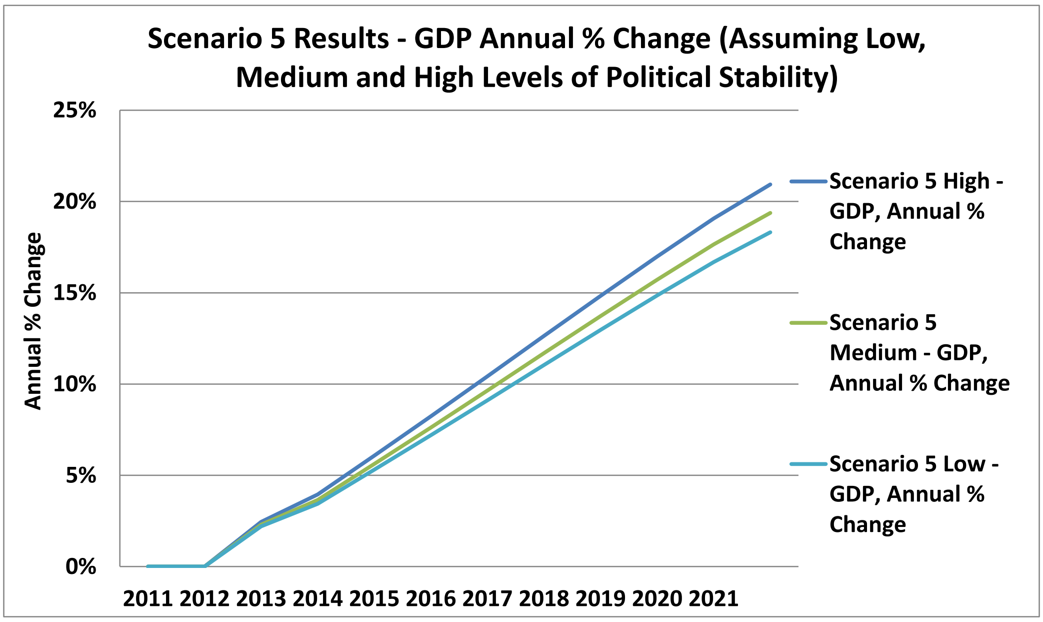



Figure 30: Scenario 5 Sensitivity Analysis – Employment, Annual % Change