Title: The Effect of Multi-Fiber Arrangement on Production and Employment in Textile and Garment Industry: A Case Study of Cambodia

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Abstract

The aim of this paper is to critically evaluate and identify the impact of MFA phase-out on the dimensions of employment and production before and after its abolishment. Using statistic from 1993-2011, this paper utilized critical analysis from graphical and statistic evidence gathered from the World Bank's database and Ministry of Economics and Finance's Forecasting and policy department of Cambodia. The direct effect of MFA phase-out is lower than expected as both variables are still increasing in real term. The purpose of the paper is to formulate safe and sound policies for the private sector as well as advising appropriate policies to governmental body.

1. Introduction

Multi Fiber Agreement (MFA) is a quota framework that uses bilateral and multilateral negotiation on the trade of textile and garment from manufacturing countries to the European Nations, United States, and Canada (Appelbaum et al, 2005). The MFA has significantly contributed to the growth of the global trade of textile and garment sector, where the value in trade increases more than sixty-folds to accounts at USD 353 billions in the last forty years. Manufacturing countries, especially developing countries, are responsible for more than 50% of the global export in textile and 75% in the global export of garment, while developed countries has shifted to more industrialized industries (Appelbaum et al, 2005).

This paper aims to investigate various impacts of the Multi-Fiber Agreement (MFA) on Cambodia's textile and garment industry in term of production and employment before and after the elimination period. The paper will further theoretically explore the impending effects of the implemented industrial policies including subsidiary and tariff policies, in order to ascertain their capabilities in alleviating or promoting uncertain outcome resulting from the MFA phase-out. This paper will discuss the performance of the Cambodian Textile and Garment industry in term of comparative advantages, which include high availability of abundant raw resources and effective labor force highlighted by standardized regulations and human resources policies. The intention of this paper is to provide sound and effective policies implication to the Cambodian Royal Government (RGC) as well as the Garment Manufacturer Association in Cambodia (GMAC) to further capitalize their contributions to the growth of Cambodian economy.

2. Background

The economy of Cambodia is largely dependent on the export and import industries, especially in the area of textile and garment industries where strong and rapid growths are experienced since early 1990s (Bargawi, 2005). The country's textile and garment industry has gained strong inflow of foreign direct investment and support personnel from Asian textile & Garment (T&G) producers such as China, Singapore, Malaysia, Hong Kong, and Taiwan, in which improved the existing infrastructures, capital, production technology, employment, and human resources significantly (Cuyver, Soeng, & Bulcke, 2006). The investments are being made by the T&G producer due to the ability to capitalize profit given the advantages of the past non quota-limitation in access to the European and United States market, as well as strong incentives provided by pro-business policies from the RGC (Bargawi, 2005). The continuous expansion of textile and garments industry in developing Asian countries has further attracted remarkable inflow of foreign direct investment (FDI) and domestic investment from developed countries as well as domestic firms thus resulting in the expansion of export, hence positively stimulating the economy of the manufacturing countries noticeably. The increase in export value in Cambodia resulting from FDI and domestic investment under the MFA account for approximately USD$2 billions in 2004, starkly contrasted by a mere USD$26 millions in 1994 (Marston, 2008).

The elimination of MFA in 2005 marks the actual ending of the quota framework and protection regime between developed and developing countries, which agreed upon to be a progressive phase-out since the 1994 WTO's AGREEMENT as viewed that exporting countries require cool-down and transitioning period (Asuyama et al, 2010). Different growth paths before and after the alteration of the world quota agreement and the removal of MFA are thoroughly analyzed and forecasted by the World Trade Organization (WTO). WTO, United Nations (UN), and World Bank (WB) seem to forecast grim result and adverse

scenarios for developing countries such as Cambodia and Bangladesh, where majority of the export shares depends on the textile and garment industry (Asuyama et al, 2010; Bargawi, 2005). The predicted result and change in scenario, however, display tremendous challenges as well as opportunities to Cambodia in term of global competition, uncapped global export quota, and intensified price competition from international competitors. The gradual removal of the MFA provides a transitional period that allows developing countries to restructure and develop in order withstand and cope with global competition even during the infant phase, as the accumulated capital and labor standard are strong due to prior bilateral negotiation, capitals obtained by FDI, and established labor standard in order to compete against more advanced as well similar size economies (Marston, 2007; Hall, 2000; Kolben, 2003). Increase in the quality and quantity of export goods, higher FDI as the containment of cost, and restructuring of existing system are essential to make the affected industries and economy to grow at a constant rate. The drastic growth in FDI and technology advancement in the last twenty years has somehow enabled Cambodia to withstand global competitions from neighboring countries, but would Cambodia be able to withstand strong global competitors such as India and China (Appelbaum et al, 2005; Bargawi, 2005; Asuyama et al, 2010). Pro-business policy, reforms in research and development, and augmentation of industrial mix will play a pivotal role in steering the growth of the global competitiveness and trade for the future of Cambodian textile and garment industries within the international arena (Hang, 2009).

3. Literature Review

The current trend of textile and garment industry in South-East Asia is declining export prices and wage earned relative to pre-2005 MFA's result, while export quantity of textile and garment are increasing in the United States and European nation at lower prices (Chan, 2006).

This trend indicates increasing quantity of export from producing countries at cheaper operation and wage cost, thus allowing producing countries to become more progressively competitive in the production and export volume after the elimination of the MFA regime. Competition drives textile and garment manufacturers in producing countries to analyze theirs comparative advantages and disadvantages thoroughly, therefore allowing manufacturers the opportunities to improve their operation handling including renovation in cost reduction and boosting productivity of workers. Comparative advantages in Cambodia are abundantly cheap labor force, higher labor standard and intensity, and strong pro-business policies (Chan, 2006). Proposed reforms strongly emphasized by the author cover the legal, bureaucratic, administration, and taxation reform, as there are inefficiencies involved in the public sector. Chan (2006) concludes positive reaction and growth from the abolishment of the MFA regime but view the growth of the textile and garment industries to be at an unsatisfactory level.

Hang (2009), asserts that diversification in the mix of industries is needed as the Cambodian textile and garment industry has been continuously facing numerous constraints including declining domestic competitive relative to the international standard, low specialization and expertize in manufacturing due to high focus on too few industries, and substantial dependence on the import of raw materials and manufacturing inputs. Thus, measurements are being created to address the adverse trend in the targeted textile and garment industry immediately as Cambodia has recognized that improvement in these factors would allow for higher FDI at a much larger scales (Hang, 2009). So Hang (2009) concludes that the textile and garment industry will be adversely affected by the abolishment of the MFA and recent GFC unless the proposed constraints are alleviated.

Appelbaum et al (2005), concludes that the biggest beneficiaries of the termination of the MFA would be China and India given large surplus of labor and established amount of capital and FDI, while a significant of smaller countries would wall tremendous decline in export of textile and garment. Nordas (2004), forecasts the same result and scenario as

Appelbaum et al (2005), states that producing countries of non-binding, non-major trading, and non-border-sharing to the US and EU characteristics would storm rapid decline in export and market share as the vertical specialization[1] (inputs within the final product crosses borders several times) is susceptible to tariff level, thus restructuring in industrial policies is imminent. Hence, countries with multilateral agreement and low tariff would be less affected by the MFA phaseout, in exception of China and India, where the phaseout would benefit these greatly as the MFA quota was restraining their production level to around 70% (Nordas, 2004).

Sak and Ryuta (2009) compute a 30% loss in textile import and garment export resulting from the participation of Vietnam in the World Trade Organization (WTO) and removal of the China's quota level based on a Computable General Equilibrium Model (CGE). The suggestion of reducing the tariff rate by more than 68% in order to cope with the drastic drop in garment export volume was made by the author, thus conclusively assume that the textile and garment industry is heavily impacted by the MFA phaseout. The estimated loss of the 30% decrease in export or import volume accounts for USD$906 millions, thus a dramatic reduction in the production tax is needed for the export of garment, while similar cut is to be made with tariff on the import of textile. In similar context to Nordas (2004), Bargawi (2005), Appelbaum et al (2005), Sak & Ryuta (2009) forecast grim result and scenario for the Cambodian textile and garment industry.

Yamagata (2006, 2007) reviews that selected countries were experiencing decline in the volume of export in textile and garment goods during the transitioning stage between 2004-2005, while smaller producing countries such as Bangladesh and Cambodia have been very fortunate in term of experiencing positive growth during the transitional stage. The growth of textile and garment still estimates to be around 20% in export volume for Cambodia (Yamagata, 2007). Well (2007) advocates abundant supply of cheap labor, effective policies, and high profit-sale ratio due to preferential access are the enabling factors that drive the

attractiveness of Cambodian 's textile and garment industry in retaining large existing buyers such as Germany and the US.

Aghion et al (1997) asserts agency consideration has positive effect on the growth model of innovation and growth. However, competition policy adversely affects the growth in Schumpeterian paradigm model. Aghion et al (1997) conclude that profit-maximizing firms (firms that are more prone to adoption of innovation) are positively affected by industrial policies and negatively affected by competition policies, whilst conservative firms (firms that are less prone to adoption of innovation) would experience reverse effects. The model proposed in Aghion et al (1997) is a general equilibrium model with the incorporation of Dixit-Stiglitz function. Empirical works, as proven by Aghion et al (1997), indicate that product market competition is positively correlated to the growth in productivity of firm and industry, hence encouraging innovation and R&D at a great extent. In the case of textile and garment industry, where depending on the type of attires and apparels, would face different circumstances. Hence, countries with numerous innovative firms would better fit from the restricting in the tariff industries at the expense of other smaller conservative firms, vice versa. Thus policymakers need to understand of the stage of their domestic and FDI firms in order to implement appropriate policies.

4. Industrial Policy in Textile & Garment Industry

RGC utilizes industrial policy to achieve two essential aims of which are continuous growth and development of export-oriented industries, and domestic manufacturing to replace consumer goods that are heavily import-oriented (Hang, 2009). The objective of industrial policy can be achieved by focusing on the expansion of Cambodia's comparative advantages, which inclusive of expanding labor-intensive industries, natural resource-based industries, small-medium enterprise, agricultural industries, research and developing of technology in the

advancement of industrial goods, establishment of industrial zones (special economic zones), domestic manufacturing enterprise for consumer goods in replacement for imported consumers goods (Hang, 2009).

RGC has thoroughly proposing financial and tax incentive to promote the expansion of small-medium enterprises from medium to long term, especially toward prioritized industry such as textile & garment industry. The establishment of information system that allocates bank credit is essential in cultivating the financial stability of private firms, hence RGC has set up a system that coordinate private commercial bank partners to investment proposals and expansion from private firms. Furthermore, state-owned enterprises are being privatized and/or corporatized, in which private managements and financial incentives will drive up the performance of such enterprises due to strong competitiveness within the market without prior protection. Administration transaction cost in port handling and public institutions will be diminished in order to draw more domestic and international firms to the market, therefore tariff and direct tax policies will be more flexible in encompassing the performance and stage of existing and emerging firms. Provision of financial backing to chosen infant industries will be considered, as the linkage between small-medium enterprises to large enterprises is essential in term of technology transfer and benchmarking. The establishment of national productivity center and national institute of standard and/or technology will create positive presence in boosting firms' productivity, quality of industrial goods, technological capacity, and patent law. Such establishments will assist firm in the development of human resource by creating vocational training program, and establishing an efficient and effective working condition for workers as well as transferring known technology and knowledge to reduce operation costs and administration cost (Hang, 2009).

Royal Government of Government (RGC) has been strongly implementing reforms in industrial policies in order to stimulate the weakened state of textile and garment industries affected by the non-quota regime and recent global financial crisis starting from 2005 and

2008, respectively. The development of small-medium enterprises will prioritize the textile and garment industry focusing on excess supply of qualified workers and cost competitiveness as vital components in the future expansion of the industry. RGC introduces reform policies in the custom and excise department such as reduction of transactional administration cost (registry cost, license cost, inspection cost, and minimum capital threshold cost, etc.), complicated start-up procedures, and processing time on import of raw materials and export of finished goods as well as expanding existing and new capital accumulation and extending the attraction of FDI (Deputy Prime Minister (DPM), 2004). The strategic reforms of RGC's policies on industrial development focus on the continuous development of labor-intensive industries, hence expanding the product range to more diverse types of garment, toys, and footwear (Hang, 2009). Improvement in the following aspects of operation such as management, technology, productivity, and quality of industrial goods are critical in determining the share of international market that will be received by the firms following the boost in global competitiveness on the trade of textile and garment. Improvement in infrastructure, port handling, administration, access to utility, and quality control are some of the main factors that drive the competitiveness of the industrial development in term of effectiveness (e.g. delivery time, production volume), efficiency, and productivity, hence the RGC has always been placed high urgency on the improvement of the proposed driving factors.

Direct and indirect textile and garment industries are further encouraged by the RGC to be created more extensively, as the need of reduction on heavy reliance on import of raw manufacturing good and input (e.g. zipper, fabrics, and button, etc.) is required to be addressed swiftly (Hang, 2009). Auxiliary textile and garment industry could foster the need to reduce the costs of operation and raw materials of the primary industry as well as the cost of transport, import, and administration that can be seen as a unnecessary burden in the stream of logistic and distribution channel. Therefore, the creation of close auxiliary industry could be used to eliminate the barriers in obtaining immediate and secondary inputs thus increasing productivity

and shorten waiting period in the aspect of operation and manufacturing as well as deepening the chain of industry within the country, hence becoming increasingly more appealing to foreign investors and boosting domestic market activities (Hang, 2009; DPM, 2004). The transformation of the textile and garment industry is inevitable, as the contract-based production of early 2000s has gradually evolving a more unlimited export-based production. So private textile and garment industries need to widen their roles in the competitive benchmarking within regional and international environment, therefore more market shares are required to be captured in order to facilitate the expansion of roles and effective competitiveness in the global arena.

Hang (2009) states that the strengthening of the legal frameworks on facilitation, as proposed by the RGC, are crucial reforms that will drastically renovate the change in administration transaction cost as well as the strong taxation incentives backing in order to establish needed facilities and further promote small-to-medium enterprises. The establishment of legal framework reform gives rise to the protection of the property right thus protecting firms, especially in textile and garment industries, from mass counterfeiting and knockoff. The arrangement of Special Economics Zones (SEZS) or Special Production Zone is to produce in entirety for export, while the main benefit is employment. The special characteristics of such zone attract high level of FDI and tax concession because high concentration of infrastructure and facility allow investors to generate desired volume of production within a single location (Hang, 2009). Hence textile and garment industry, especially footwear and toys, can gain high amount of benefits from such zones as the operation cost would be lower due high inflow of FDI, readily availability of resources, and reliable infrastructure, furthermore, these zones allow for extension of auxiliary industries as well (Hang, 2009).

5. Methodology

5.1. Data

Collected data are obtained from the database of the World Bank and the department of forecasting and public policy associated with the Cambodian Ministry of Economics and Finance. The collected data are time-series data covering a period of 1993-2011. Several sets of data are collected in the paper in order to calculate and construct the macro-level performance of textile and garment industry, hence providing intuitions for more insightful analysis in the targeted dimensions of the T&G industry. Essential variables include production expressed as percentage of real GDP, employment expressed in term of total labor force, and export variables expressed in term of percentage in real GDP. The selected variables are the instrumental and foremost factors in the economy that will be most impacted by the change in MFA phase-out. The general effect of both variables over a fixed period of time will be critically analyzed to identify particular effects of the MFA on textile and garment industry. The extension of this paper focus on the formulation and critique of future tariff and subsidiary policies as initiated by the RGC in order to evaluate their effectiveness in stimulating the selected dimensions of performance in the textile and garment industry.

Table. 1 Selected Variables and Descriptions

Population	Total number of people in Cambodia
Real Gross Domestic Product	Real GDP in term of USD (Base Year = 2000)
Factory	Number of factory in the economy of Cambodia
Labor Force Participation Rate	Labour force participation rate as percentage of total population (15 years-of-age and above)
Labour Force	Number of workers in the economy (15 YOA and above)
Employment	Number of workers in textile and garment industry (15 YOA and above)
Employment as % of labour force	Employment expressed in percentage of total labor force (15 YOA and above)
Production	Production volume expressed in USD term (Base Year = 2000)
Production as % of GDP	Production volume expressed in percentage of GDP (Base year = 2000)
Wage	Wage and salaries as percentage of total employment (15 YOA and above)
Merchandise trade	Merchandise traded as percentage to GDP
Foreign Direct Investment	Percentage growth ofFDI over time (Base Year=2000)
Domestic Investment	Percentage growth of domestic Investment (Base Year = 2000)
Direct Tax	Percentage growth of tax over the year (Base Year = 2000)

Table. 2. Statistical Summary

Variables	Mean	Standard Deviation
Production as % of GDP	29.37%	19.14%
Employment as % of LF	3.08%	1.76%
Tax as % of GDP	9.56%	5.81%

5.2. Empirical Analysis

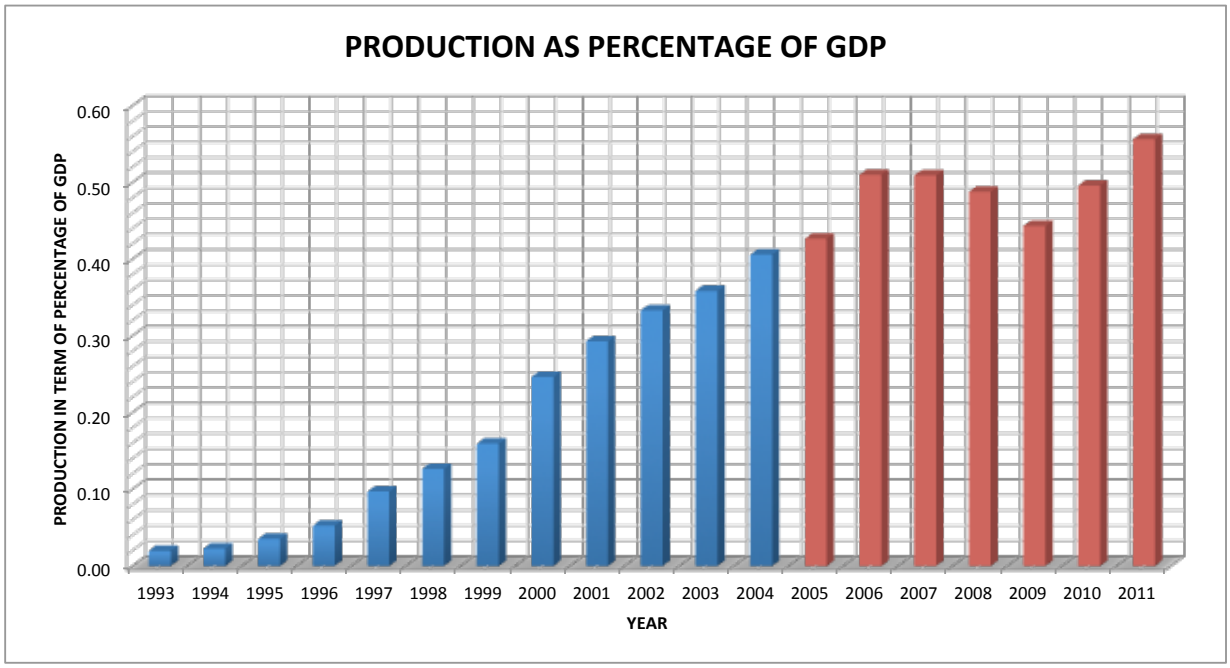
5.2.1 Production of T&G as Percentage of GDP

Table. 3 Production as % of total GDP from 1993-2011

Year	Production (2000)	GDP (2000)	Production as percentage of GDP
1993	43,796,702.32	2,211,084,361.72	0.02
1994	54,775,407.00	2,412,281,198.44	0.02
1995	90,434,759.57	2,567,702,131.22	0.04
1996	142,220,250.98	2,706,674,884.79	0.05
1997	277,249,348.42	2,858,784,408.45	0.10
1998	380,234,736.11	3,001,981,855.74	0.13
1999	535,536,620.46	3,359,510,627.74	0.16
2000	900,749,061.06	3,654,031,716.28	0.25
2001	1,156,767,361.69	3,947,765,865.56	0.29
2002	1,403,756,162.40	4,211,787,742.81	0.33
2003	1,639,065,847.66	4,570,038,145.41	0.36
2004	2,046,381,503.83	5,042,604,252.67	0.41
2005	2,436,951,745.17	5,710,753,630.44	0.43
2006	3,227,555,000.28	6,325,863,881.62	0.51
2007	3,550,704,577.14	6,971,897,273.01	0.51
2008	3,628,820,077.84	7,438,427,180.48	0.49
2009	3,302,226,270.83	7,444,876,070.67	0.44
2010	3,913,138,130.93	7,888,819,880.59	0.50
2011	4,692,709,288.28	8,435,594,576.26	0.56

Source: Ministry of Economic and Finance & World Bank

Figure. 1



Source: MEF & WB

In accordance to table 3 and figure 1, the production as percentage of GDP has generally experienced rapid growth starting from the emergence of the industry in 1993 until the current date. The period of high growth can be seen noticeably during late 1990s to mid 2000s as high inflow of FDI from the T&G producer around Asia being invested within the country as well as the inception of the MFA agreement in 1998 (Asuyama et al, 2010; Bargawi, 2005; Appelbaum et al, 2006; Hang, 2009; Cuyver et al, 2006). Figure 1 is created to ascertain the two segregated periods of 1993-2004 and 2005-2011, hence accounting for the MFA phase-out at the end of 2004 in order to clearly identify the impact of such shock on the dimension of production. From the period of 1993-2004, rapid growth and contribution from the production volume of textile and garment industry is indisputable in the economy of Cambodia, thus the growth possesses strong upward behavior that peak at 56% of the total GDP of which account to be more than USD 4.7 billions in monetary term. The statistic displays drastic success in the

development and expansion of labor-intensive industry such as textile and garment industry, where the initial contribution is less than 2% of the total GDP. The source of the success is majorly shifted to the inception of incentives and protection programs within the agreement of MFA that allows immense increases in quota for achieving higher standard and obligation in quality for contractual products in addition to satisfying binding socio-economics factors such as employee protection, safe working environment, fair and honest management (Marston, 2007; Hall, 2000).

From 2004 to 2011, the figure depicts a more fluctuating behavior on the dimension of production as the MFA is eliminated. The general positive growth and contribution of production volume in textile and garment industry still retain the utmost importance in term of GDP. Nevertheless, there is miniscule increase in growth from 2004 to 2005 where the production as percentage of GDP slightly climbs from 41% to 43% during the transitional period, however, there is an estimated of 21% boost in the production volume in monetary term. The initial shock of MFA phase-out may create uncertainty in the mind of foreign and domestic investor, whether Cambodian textile and garment industry could retain existing purchasers and market share given the disappearance of global protection from previous US and EU agreement in addition to China gaining further market share (Appelbaum et al, 2005). In the period of 2005 to 2006, the growth in production indicates a strong leap from 43% to 51%, thus proving that the textile and government industry still retains existing purchasers and investors as well as expanding the market shares rapidly. The inflow of FDI triples during this transitional period (2004-2006), where increasing number of investors is entering the Cambodian market in order to capitalize benefit from non-existing quota once again.

From the period of 2007 to 2009, there is an unexpected shock that slumps the production volume of the textile and garment industry as well as slow down the growth of the economy. The production (% of GDP) drops from 51% to 44%, hence creating difficulty for firms to compete domestically or internationally. Extensive reforms are being made such as

wage cut, reduction in employment, decrease in production volume, and subsidy from the governmental body.

From 2009 to 2011, the production volume and production (% of GDP) are seem retain positive growth, hence marking the recovery of the world economy and the growth the textile and garment industry. The production increases from 50% to 56% in term of GDP and the actual production figure increase from USD 3.9 billions to 4.7 billions in term of monetary value. The rapid growth of textile and garment industry can be contributed to the establishment of certainty and expectation from promised high profit-sale ratio as well as the preferential access to EU and US market (Yamagata, 2006; Yamagata, 2007)

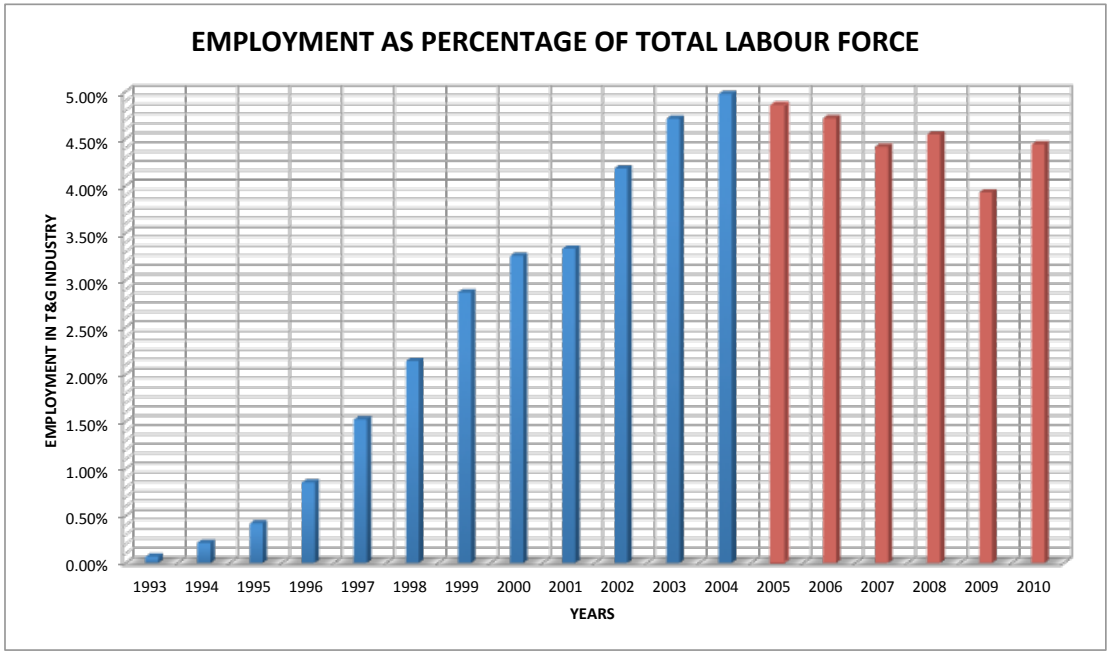
5.2.2. Employment of T&G as Percentage of Labor Force

Table. 4 T&G Employment as % of Total Labor force from 1993-2011

Year	Factory	Labour Force	Labour Force Participation (%)	Employment	Employment (% of LF)
1993	4	4,580,019.42	84.60	2,000	0.07%
1994	7	4,666,071.77	84.70	3,000	0.21%
1995	20	4,784,246.26	84.50	10,000	0.42%
1996	35	4,928,450.24	83.90	20,000	0.85%
1997	72	5,131,620.51	83.20	42,000	1.52%
1998	143	5,366,428.30	82.50	78,000	2.14%
1999	201	5,575,197.13	82.30	115,000	2.87%
2000	220	5,773,506.00	82.10	160,000	3.26%
2001	184	6,002,653.24	82.10	188,000	3.33%
2002	255	6,217,998.68	82.20	200,000	4.18%
2003	280	6,439,209.63	82.40	260,091	4.71%
2004	320	6,658,140.70	82.70	303,460	4.97%
2005	374	6,905,310.88	83.30	331,023	4.85%
2006	387	7,148,077.87	83.70	334,937	4.72%
2007	412	7,382,953.90	84.10	337,129	4.41%
2008	418	7,608,142.59	84.50	325,868	4.55%
2009	422	7,793,044.94	84.50	345,860	3.93%
2010	451	7,972,361.03	84.50	306,379	4.44%
2011	537			353,805	

Source: MEF & WB

Figure. 2



Source: MEF & WB

As indicated by above table and figure, the employment in textile and garment industry has been increasing drastically in the last 20 years. The initial employment in textile and garment industry starts with mere two thousands employees within four factories, however, the current employment expands to more than three hundreds and fifty thousands employees across more than 500 factories as of the current date. The above figure is created to identify the impacts of the MFA phase-out on the dimension of employment in textile and garment industry before and after its elimination in 2004. The figure contains two time periods and they are the period of 1993 to 2004 and 2005 to 2010. In the period of 1993-2004, there is a dramatic increase in textile and garment employment where the numbers of employee increase by more than 100 folds. The creation of job is directly influenced by high inflow of FDI and MFA agreement, where cheap labor is an incontestable component in labor-intensive industry such as textile and garment industry. Such high influx of labor availability is an appealing component

that leads to the inception of the MFA agreement, where such resource should be specifically utilized (Kolben, 2003).

From 2004 to 2009, the figure exhibits declining behavior in the industry due to the combined effect of the MFA phase-out and the Global Financial Crisis (GFC) (Sak & Ryuta, 2009). Therefore, the negative impact of both factors leads to increasing unemployment due to restructuring and cost-cutting procedures. Another interesting factor within this period is the continual increase in the number of factory, even though the number is trivial but it indicates an insightful gesture that reflects domestic competitiveness and willingness of domestic firms to take advantage of higher availability of cheaper labor in order to boost its market presence and production in the absence of new investment from foreign investors. The transitioning period of 2004 to 2005 shows that the initial impact of MFA phase-out is quite trivial due to the constant increase in direct employment within the textile and garment industries, where creation of around 30,000 jobs and 54 factories takes place. The positive growth reflects confidence of firms through the expansion of operation and investment as well as the connection of Cambodia becoming a World Trade Organization (WTO) (DPM, 2004).

In the recent period of 2011, the employment in textile and garment industry exhibits positive growth in term of higher inflow of returning and new employees, indicated by the boost in the graph relative to previous years. The employment is selected industry increases from 3.9% to 4.4%, thus directly denotes faster absorption of employees and increased in job creations. The jump in the number of factory creations also indicates strong demand for direct and indirect employees to fill the production and export needs, hence this factor intuitively denotes increasing demand for export of textile and garment from foreign markets as well.

5.3. The Impact of the Multi-Fiber Agreement

The impact of MFA inception on the dimensions of production and employment within the textile and industrial policies is tremendous in a theoretical sense. The direct impact of MFA phase-out on the dimension of production and employment are not very significant in the

actual figure. The production retains positive growth from 2005 to 2007, hence undermines the effect of the phase-out. Employment, as a dimension of performance in the textile and garment industry, exhibits slight declining behavior during the transition period, but the actual employment and number of factory figure indicates growth at a declining rate. The volume of production and level of employment seem to pick up during late 2010, as the volume production increases from 50% to 56% and employments seems to increase from 3.9% to 4.4%. The direct effect of MFA phase-out is insignificant in statistical sense. MFA has profound positive effect on the growth of the textile and garment industry during it course, as it is a framework that is a proxy of safety net that provides firms certain information on the amount of demand. Firms can effectively and efficiently coordinate resources to meet the demand regardless of fear in large fluctuating of demand throughout each year. The effect of GFC is amplified by the removal of such safety net, thus bringing the aspect of uncertainty into the structure of firms, as seen by declining during 2007 to 2009 in all essential dimension in the performance of the textile and garment industry (Sak & Ryuta, 2009). The uncertainty and slowdown in global economy in addition to MFA phase-out had .The emergence of growth in 2011 indicates rapid adaptive capacity and drive of firms to capitalize profit and capture more market share from uncapped access to the world largest market. The direct effects of MFA phase-out are much smaller than expected given the distinct comparative advantages that Cambodia can offer to textile and garment firms, however, lessons can be drawn from the fluctuation in demand resulting from shock in the global economy.

5.4. Intuition for the Result in Employment

There are many elements leading to the success of the Cambodian textile and garment industry in withstanding global competition after the removal of the MFA framework. By not just simply assuming the obvious dimension of cheap labor and supportive governmental policies as the main contribution, other various dimensions and components can be intuitively compiled into this miracle. One component of this miracle is the International labor Standard,

under the compliance to the management of International Labor Organization (ILO) led by the bilateral negotiation and financing between the government of the United States and Cambodia (including Garment Manufacturing Association in Cambodia) in 1998. Standardized labor program is implemented in every factory within the country. Therefore each factor worker receives consistent wage, paid leave, fair and safe working condition under the monitor of the ILO team (Marston, 2007; Hall, 2000; Kolben, 2003). Human resource management and development, wage rate, and working condition assume the utmost importance in determining the level of productivity in any factory and industry as well as the level of attractiveness to foreign investors. Hence, productive industries can only compete well domestically and internationally if and only if such industries have achieved the required standard of the ILO, because labor standard places critical roles on the mind of investors and buyers alike. Cambodia receives positive review from the WTO and foreign investors as the labor standard is achieved, thus more buyers and investors are becoming increasing interested in demanding from the Cambodian textile and garment market.

6. Policy Implication

Trade facilitation and streamline procedure reforms are crucial for the recently recovered textile and garment industry as the need for the industry to stay competitive is extremely high. Reform policy should focus on further restructuring of the effective administration cost, hence lower or abolish unnecessary fee and maintain administration transaction cost at low level. The concentrated area for exports and imports such as ports and borders, where fast processing time and simplified procedure are highly recommended, should be closely monitored in order to ensure efficiency in trading and distribution of needed goods across regional and global areas. The efficiency in trade facilitation accounts for reduction in entry barriers for new domestic and international firms to enter the market thus administration cost should always be maintained at a low level and simplistic to account for. Tariff reduction

to 0% should include more lines inclusive of raw materials that are being used in prioritized industries.

Communication between private and public sectors is crucial in the development of the national economy as well as the success of the business. The continuation of private-public sector forum will become increasing important in the formulation of policy in order to support the wellbeing of prioritized industries and involved workforces. Special steering committees are pivotal mechanism that communicates information across all required public and private sectors in the most reliable and effective manner. The implementation of steering committees for labor-intensive and export-oriented small-medium industry such as textile and garment, allows the governmental body to devise effective means to ease and stimulate further improvement in productivity ranging from reduction in operation cost to subsidy policy (DPM, 2011).

Reform on the economic and financial policy should be thoroughly monitored, evaluated, and coordinated by both public and private sectors, as the current program is entirely under the control the governmental body. The Steering Committee of Economic and Financial Policy should be more transparent in the open discussion on the formulation of policy, hence involving private sectors and non-government organization could potentially improve the effectiveness of the policy (DPM, 2011). The expansion of the public-private sectors outlines the initial step to a more effective policy implementation at the most crucial reform, as private sectors could voice their request directly and appropriately without much bottlenecks.

Tax subsidy policy on profit that was implemented during the GFC should be extended beyond the initial deadline of 2012 on condition bases as recent improvement in the performance of the textile and garment firms is still in progress. Such policy could also be an essential tool in attracting future investors and purchasers, as it demonstrates a certain safety net for involved industries within the economy. However, accurate profit data should be thoroughly analyzed as existing profitable firms may want to take advantage of such beneficial

policy. The optimal level of tax subsidy will be implemented, however, not all firms are eligible for such policy as strict monitoring and screening are required to assess the helps that will be provided as aid to specific struggling firms.

Policy leading to diversification of industry should be considered in term of diversify the economy, hence pooling risks into different sectors instead of accumulating risk under one prioritized industry. The importance of diversify risk is essential in having better growth at aggregate level.

7. Limitation

There are many constraints on the creation of this paper, as Cambodia does not have sufficient amount of data to create a concrete quantitative model that allow for meaningful economic interpretation and further analysis of the causal effect of interested variables. Available sources of data are expensive to acquired and hard to find, while a majority of the governmental data is classified and cannot to be disclosed to the public. There are no disclosed records of the monitoring of firms' performances in detail, while collection of data that can be purchased outright does not contain much needed information unless being the survey to be conducted personally; however, such process takes quite an extensive amount of time and resources that are not provided. The causal effect MFA phase-out should be further studied in future literature using advance quantitative model.

8. Conclusion

Multi-Fiber agreement is a quota framework that places trading threshold of textile and garment from manufacturing countries to the market of US, EU, and Canada. The MFA has contributed significantly to the growth of global trade in textile and garment goods, the

estimated value of such trade are around USD 353 billions. The economy of Cambodia mainly depends on the export of textile and garment production, hence it accounts for 75% of the total export. Textile and garment industry is the initial industrial reform in Cambodia, it has the highest growth and investment rate resulting from inflow of FDI concentrating on capitalizing unrestricted access to EU and US market as well as high promised profit-to-sale ratio. The inception and elimination of MFA are predicted to impact and reform the textile and garment industry drastically. The elimination of MFA is predicted to result in global competition in the export of textile and garments, hence a race to attract the highest amount of total investment. Such fierce competition pressures firms to stay innovative and maintain high quality in production of goods. Strong industrial policy will become an essential mechanism that provides instruction to private sectors.

A number of literatures predict adverse impact of the elimination on the performance and wellbeing of the textile and garment industry as China and India will gain most of the market share in the trade of garment and textile goods. Another few literatures denote positive growth of the industry given excessive supply of cheap labor, effective industrial policy, and high promise of profitability. Industrial policy aims to develop export-oriented industries and domestic raw-material manufacturing firms, hence prioritize the textile and garment industry as one of the most important contributor. RGC has proposed medium and long financing toward small to medium enterprises, by coordinating partner commercial to provide bank credit for future expansion and penetration into the market. Auxiliary industries are encouraged to create as the need to reduce operation and administration cost is essential in the determinant of competitiveness in a global arena.

Essential variables that will be heavily affected by the MFA phase-out are production and employment within textile and garment industry. The paper critically analyzes the graph of production and employment to identify the effect of the MFA phase-out before and after its abolishment. Before the abolishment of MFA, production and employment exhibit similar

positive pattern, while production continues to increase and employment seems to decline during the transitional stage. The actual figures of both variables assume positive growth after the abolishment of the MFA. So the direct the impacts of the MFA are smaller than expected, however, by removing the MFA textile and garments industries are faced with problem such as fluctuating in demand, unexpected shock, and changing in preference. A intuition of the importance in employment is the factor that concerns the welfare and wellbeing, hence abiding the ILO standard. The obligation to the ILO standard could consider to be a comparative as many large international investors and buyer place high priority on the welfare and wellbeing of the employees. Possible policy implication includes reform in trade facilitation, stream procedure, transparency of monitoring group such steering committee of economic and finance policy, tax subsidy on profit, and diversification policy.

References

Ministry of Economic and Finance, Department of Forecasting and Policy

World Bank, Database

Aghion, P., Dewatripont, M.& Rey, P. (1997). Corporate governance, competition policy and industrial policy. *European Economic Review* 41(1), p.797-805

Appelbaum, R. P., Bonacich, E., & Quan, K. (2005). The end of apparel quotas: A faster race to the bottom? Global and International Studies Program, University of California, Santa Barbara.

Asuyama, Y., Chhun, D., Fukunishi, T., Neou, S., & Yamagata, T. (2010). Firm dynamics in the Cambodian garment industry: Firm turnover, productivity growth, and wage profile under trade liberalization. *IDE Discussion Paper No*. 268, Institute of Developing Economies.

Bargawi, O. (2005). 'Cambodia's Garment Industry: Origins and Future Prospects.' *ESAU Working Paper 13*, London: Overseas Development Institute.

Chan, V. (2006). Cambodia's Garment Industry Post-ATC: Human Development Impact Assessment. EIC.

Cuyvers, L., Soeng, R,. & Van den Bulcke, D. (2006). Foreign direct investment and development of least developed countries: The case of Cambodia's textile, garment, furniture, transportation and tourism industries. *CAS Discussion Paper No. 49*, University of Antwerp, Belgium.

Deputy Prime Minister's Speech (DPM). (2004). 7th Government-Private Sector Forum. International Finance Corporation

Deputy Prime Minister's Speech (DPM). (2005). 8th Government-Private Sector Forum. *International Finance Corporation*

Deputy Prime Minister's Speech (DPM). (2006). 9th Government-Private Sector Forum. *International Finance Corporation*

Deputy Prime Minister's Speech (DPM). (2008). 12th Government-Private Sector Forum. *International Finance Corporation*

Deputy Prime Minister's Speech (DPM). (2010). 14th Government-Private Sector Forum. *International Finance Corporation*

Deputy Prime Minister's Speech (DPM). (2011). 15th Government-Private Sector Forum. *International Finance Corporation*

Hang, C. N. (2009). *Cambodian Economy: Charting the Course of a Brighter Future, A Survey of Progress, Problems and Prospect*. Phnom Penh; Hang Chuon Naron.

Hall, J. A. (2010). Human Rights and the Garment in Contemporary Cambodia. *International Law*, 119(1), p.119-174.

Nordas, H. K. (2004). "The Global Textile and Clothing Industry post the Agreement on Textiles and Clothing." *WTO Discussion Paper 5*, 1-41.

Wells, D. (2006). "Best practice" in the regulation of international labor standards: Lessons of the U.S.-Cambodia textile agreement. *Comparative Labor Law and Policy Journal*, 27(3), pp. 357-376.

Yamagata, T. (2006). The garment industry in Cambodia: Its role in poverty reduction through export-oriented development. *IDE Discussion Paper No. 62*, Institute of Developing Economies.

Yamagata, T. (2007). Prospects for development of the garment industry in developing countries: What has happened since the MFA phase-out?. *IDE Discussion Paper No. 101,* Institute of Developing Economies.