



An Impact Assessment of the EU Timber Regulation on Small and Medium Sized Enterprises in China's Wood Product Industry

Yinchu ZENG, Wei ZENG, Guangyuan QIN, Yong ZHU, Bo HUANG

Executive Summary

The rapid development of timber and wood product industry all over the world has brought about the worldwide issue of illegal logging. The European Union (EU) started the Action Plan for *Forest Law Enforcement, Governance and Trade* (FLEGT) in 2003, aiming at combating illegal logging and its associated trade. Then the EU adopted a new timber regulation to ensure the legality of all wood products entering the EU market, which will come into force on 3 March 2013. The new regulation requires all wood products to be placed on the EU market should be demonstrated to be legal, i.e. wood producers and importers in all 27 EU Member States are required to practice due diligence to ensure the legality of wood and wood products to be placed on the EU market for the first time, and accordingly all manufacturers supplying wood products to the EU are required to keep records of a traceable chain of custody for the legality verification.

China is the largest power in producing and trading wood products in the world and also considered as the most important exporter of wood products to the EU market. In addition, China's wood product industry mainly consists of Small and Medium-sized Enterprises (SMEs). Therefore, the implementation of the new EU timber regulation will have great impacts on SMEs in China's wood product industry.

Focusing on the sectors of plywood, wooden flooring and pulp and paper in China's wood product industry, the report combines statistical inference and field surveys in enterprises to elaborate a proactive impact assessment and analysis of the EU timber regulation on SMEs in China's wood product industry. The assessment covers the business model of SMEs in China's wood product industry, the direct incidence of the EU timber regulation and the financial, economic and societal impacts of the regulation on these SMEs.

The term 'SMEs' in the report is defined in light of the standards in *the Circular of the Ministry of Industry and Information Technology, the National Bureau of Statistics, the National Development and Reform Commission and the Ministry of Finance on Issuing the Provisions on*



Classification Standards for Small and Medium-sized Enterprises on 18 June 2011. The Circular classifies enterprises into large, medium, small and micro sizes against certain indicators including business population, business income and total assets when the industrial characteristics are also taken into account. The SMEs in China's wood product industry in the report refers to the enterprises whose staff is fewer than 1,000 people or business income is less than RMB 400 million yuan. Amongst them, a medium-sized enterprise has a staff of at least 300 people and its business income is not less than RMB 20 million yuan, a small enterprise has a staff of at least 20 people and its business income is not less than RMB 3 million yuan, and a micro enterprise's staff is fewer than 20 people or its business income is below RMB 3 million yuan.

0.1 Some Stylized Facts about SMEs in China's Wood Product Industry

0.1.1 SMEs play a crucial part in China's wood product industry. In 2008, totally there were 127,900 wood product enterprises in China, including 155,500 SMEs, accounting for 98.07% of the total. The total value of industrial output generated by all enterprises was RMB 1,684.682 billion yuan, including RMB 1,262.776 billion i.e. 74.6% generated by SMEs. The total employment of the wood product industry was 5.364 million people, among which 4.8477 million people were working for SMEs, accounting for 90.37%. In terms of different sectors, 99.91% of the enterprises were SMEs engaged in plywood, which generated 90.67% of the total value of industrial output and employed 97.16% of the total employment. The proportions of SMEs on wooden flooring were slightly lower than those on plywood, taking up 99.36%, 51.48% and 77.45% respectively of the total number of enterprises, the total value of industrial output and the total number of employees. SMEs on paper and pulp accounted for 99.34% of the total number of enterprises, 66.81% of the total employees and 24.76% of the total value of industrial output.

0.1.2 SMEs also play a key role in the exportation by China's wood product industry. In 2008, there were 4,041 export enterprises, including 3,854 SMEs which accounted for 95.37%. The delivery value of exports generated by the wood product industry was RMB 177.547 billion yuan, 68.05% of which, viz. RMB 120.815 billion yuan, was generated by SMEs. There were 361 plywood exporters, who gained a delivery value of exports of RMB 14.833 billion yuan and the SMEs accounted for 98.34% and 89.38% of the two numbers respectively. There were 89 wooden flooring exporters, 93.26% of which were SMEs, and their delivery value was RMB 5.072 billion yuan, and 82.33% of which was gained by SMEs. There were 187 paper and pulp exporters who



produced a delivery value of RMB 17.024 billion yuan, although 74.87% of which were SMEs, they only contributed 5.46% to the total delivery value.

0.1.3 The wood material sourcing characteristics of the exported oriented SMEs in China's wood product industry. In terms of raw materials, the Chinese SMEs mainly use fast-growing wood from both domestic sources and imports. The raw materials from domestic source are mainly purchased on the wood market, purchased in locations of origin by contracted agents or supplied by their own material plantations. The imported wood is obtained from procurement directly on the wood market, imports by contracted wood importers, purchases from specific producing and processing enterprises or supplies by their own material plantations. Many plywood exporters use domestic fast-growing wood as raw materials for base boards while some others use imported wood. The flooring exporters are mainly exporting composite laminate flooring and reinforced wooden flooring while the enterprises engaged in solid wood flooring rarely export their products. Many base boards of the composite laminate flooring are made of domestic raw wood and some are made of imported wood, while the surface veneers are mainly made of imported wood. The paper and pulp sector uses both imported and domestic raw materials: the enterprises applying modern technology mainly rely on the imported raw materials of wood pulp and waste paper, while the traditional paper mills mainly use the domestic raw materials.

0.1.4 The product marketing characteristics of the exported oriented SMEs in China's wood product industry. Most of SMEs in China's wood product industry are selling their products as Original Equipment Manufacturers (OEMs) under the buyers' brand names, but still a few SMEs are selling products under their own brand names. The OEM production is usually executed in three cases, in which SMEs accept the orders directly from foreign retailers or overseas purchasers or they manufacture the products for the enterprises who accept the orders. Generally, there are very few SMEs exporting products under their own brand names and such marketing practice is still in a pioneering and expansion stage. Specifically, SMEs using their own brand names mainly supply products to foreign retailers and/or develop their own marketing networks abroad. The plywood sector and the wooden flooring sector often apply the OEM production while the paper and pulp sector export products under their own brand names for most of the cases.

0.2 The Direct Incidence of the EU Timber Regulation on SMEs in China's Wood Product

Industry



0.2.1 The implementation of the EU timber regulation will have direct impacts mainly on SMEs in China's wood product industry. It is estimated that a total of 1,507 enterprises including 1,453 SMEs or 96.4% of them are prone to the direct impacts of the new EU timber regulation. Meanwhile, a total of 396,000 employees may be directly affected by the regulation, among which 303,000 or 76.45% are working in SMEs. In terms of the sizes of enterprises, the medium-sized enterprises may be exposed to the greatest impacts. Among all the directly affected SMEs, there are 860 medium-sized enterprises, accounting for 59.2%, while among the affected employment, 249,000 employees or 82.3% are from the medium-sized enterprises.

0.2.2 Most of the SMEs prone to the direct impacts of the EU timber regulation are from the plywood sector while few from the paper and pulp sector. As added up, 79 SMEs in the plywood sector may be directly affected, accounting for 97.5% of all the enterprises in this sector, 70 SMEs in the wooden flooring sector may be affected, accounting for 93.3% of the whole sector, and 20 SMEs in the paper and pulp sector may be affected, accounting for 74%. Considering the size, there is a half-half share between the medium-sized enterprises and the small and micro enterprises in the paper and pulp sector affected directly by the regulation, while it will affect most of the medium-sized enterprises in the wooden flooring sector and the plywood sector, which account for 74.3% and 70.9% respectively of the directly affected SMEs.

0.2.3 SEM employees in the paper and pulp sector will be mostly directly affected by the EU timber regulation while fewest in the plywood sector will be affected directly. A total of 227,000 SME employees in the paper and pulp sector may be prone to the direct impacts, accounting for 66.5% of the total business population in the sector; 156,000 SME employees in the wooden flooring sector or 88.8% of the total business population in the sector may be directly affected, and 141,000 SME employees in the plywood sector or 81.2% of the total may be affected. Regarding the size, most of the affected employees in the paper and pulp sector are working in the small and micro enterprises, i.e. 175,000 people accounting for 77.2% of the total business population in SMEs of the sector, while most of the affected employees in the wooden flooring sector and the plywood sector are working in the medium-sized enterprises, accounting for 93.0% and 89.5% respectively of the total business populations in SMEs of the two sectors.

0.3 The Financial Impacts of the EU Timber Regulation on the SMEs in China's Wood

Product Industry



0.3.1 The potential countermeasures likely to be adopted by the SMEs in China's wood product industry in response to the regulation and the potential costs are examined. The wood enterprises in China may have two options to ensure the legal sources of their raw materials: they can use FM (Forest Management) certified wood, which usually is 10 – 30% more expensive than those uncertified wood and thus will lead to an increase by 3 – 24% in the product costs; otherwise, they can use the verified legal timber. The legality verification for domestic wood may cause a slightly increased cost estimated to be 2 – 5% higher in the unit price of domestic wood materials and thus will possibly lead to an increase by 0 – 4% in the product costs. The legality verification may lead to a 5 – 10% increase in the unit price of imported wood and thus a rise by 0 – 8% in the product costs. The wood enterprises may have two options to ensure the traceability along their supply chain: they can apply the Chain-of-Custody (CoC) certification for forest enterprises or provide an all-conditioned traceability system along their production and marketing processes, with the estimated increases of 1 – 5% and 0.2 – 2% in the product costs respectively.

0.3.2 The product costs of enterprises will be increased in different ranges when they apply different combined countermeasures to meet the requirements of the new regulation. When an enterprise purely employs the forest certification measures, i.e. the FM certified wood plus the CoC certification, it will bring about a rise by 3 – 24% in the product costs. When it applies the verified legal timber and an all-conditioned self-run traceability system, the cost increase can be controlled below 6%. However, the increased product costs are inevitable whatever measures the enterprises adopt. Comparing the costs, it is an effective approach to control the costs of Chinese enterprises to meet the new requirements by providing an efficient and well-designed legality verification system and encouraging enterprises to run their own traceability system.

0.3.3 There are different costs to be paid by SMEs in different sectors in the wood product industry to meet the requirements. The different costs attribute to the share of costs for raw material in the product costs, the proportion of imported wood used, the diversity of wood materials used in the products, the complexity of production and marketing processes, and other features of different sectors. Applying the higher-standard forest certification may bring about a smaller ascent between 4 – 17% in the product costs in modern paper and pulp sector, while bigger rises in the product costs in other sectors, i.e. by 9 – 27% in composite laminate flooring, 8 – 27% in traditional papermaking, 8 – 26% in plywood and 7 – 25% in reinforced wooden flooring. Application of verified legal timber and a self-run traceability system may lead to the



biggest rise in composite laminate flooring, i.e. 2.4 – 6.0% and the cost increases in other sector will be 1.27 – 4.8% in modern paper and pulp, 2.0 – 5.6% in traditional papermaking, 1.8 – 5.2 % in plywood and 1.5 – 4.6% in reinforced wooden flooring.

0.3.4 The EU timber regulation may have more negative impacts on SMEs of smaller scales by increasing their product costs disproportionately. No matter higher-standard option or ordinary measure is applied, the regulation may lead to far more cost increases in micro and small enterprises than in medium-sized enterprises. Taking the plywood sector for example, applying the FM+CoC option may lead to increased product costs in micro, small, smaller medium-sized and bigger medium-sized enterprises respectively by 20 – 26%, 16 – 22%, 12 – 18% and 8 – 14%, and the application of wood legality verification plus an all-conditioned traceability system run by the enterprises themselves may lead to increases in product costs in the SMEs of above sizes respectively by 3.9 – 5.2%, 3.2 – 4.2%, 2.5 – 3.5% and 1.8 – 2.8%. The differentiation in the ranges of cost increases caused by the sizes of enterprises also exists in other sectors such as wooden flooring and paper and pulp. Nearly all micro enterprises and 30 – 50% of small enterprises are not able or willing to afford the one-off investment required by forest certification, or even when they can afford the one-off investment but they will need to face the high allocated cost in the unit product because of their small size, and the proportions of micro, small, smaller medium-sized and bigger medium-sized enterprises likely to adopt the FM+CoC option are respectively close to zero, 10 – 20%, 20 – 50% and 50 – 80%. On the other hand, the legality verification and a self-run traceability system require less one-off investment, which will not constitute a difficult threshold for the enterprises to meet the regulation. In addition, large-scale enterprises in particular the large-scale transnational enterprises may offset the increased product costs resulted from the rising price of wood materials extending their industry chain and allying with the enterprises producing wood materials, which is generally an impossible option for SMEs. At the same time, the new EU timber regulation may increase risks and uncertainties in both the raw material market and the product market for SMEs.

0.3.5 The response to the regulation may bring some positive effects on the finance of SMEs in China's wood product industry. Certified products may bring extra premium price to be paid by consumers and the SMEs in China's wood product industry may receive a 6 – 8% premium price from the EU market for their certified wood and food products. In terms of products in lesser demand for consumption, the increased cost may embody in the consumer price more easily



and thus the sale price will be on a simultaneous rise, which is estimated to be in a restrictive range of 0 – 4%. The new EU timber regulation is viewed as a market barrier. The SMEs in China are likely to expand their exports to the EU market and increase their market shares if they can overcome the barrier. The economies of scale brought about by the expansion of production and marketing may reduce the mean product cost by 0 – 1%. Synthetically, the application of FM+CoC option will increase the sale price or reduce the product cost by 7.4 – 12.2%, while the application of legality verification combined with a self-run traceability system will increase the sale price or reduce the product cost by 0.8 – 2.3%.

0.3.6 The positive effects of the response to the regulation on SMEs' finance may vary in different sectors. When the higher-standard option of forest certification is applied, the positive effects may be reflected to the most extent in 11.2 – 12.2% of the traditional papermaking sector while be shown at smaller proportions of 9 – 10%, 8.9 – 9.9%, 7.4 – 8.6% and 7.8 – 8.8% respectively in the composite laminate flooring sector, the reinforced wooden flooring sector, the plywood sector and the modern paper and pulp sector. When the wood legality verification combined a self-run traceability system is applied, the positive effects may be reflected at larger proportions of 1.7 – 2.3% and 1.6 – 2.3% separately of the reinforced wooden flooring sector and the traditional papermaking sector and at smaller proportions of 1.2 – 1.8% and 1.0 – 1.6% respectively of the composite laminate flooring sector and the plywood sector while at the smallest proportion of only 0.8 – 1.4% of the modern paper and pulp sector.

0.3.7 The integrated impacts of the new EU timber regulation on SMEs' finance will vary due to the different effects of their reactions to the regulation. Either a higher-standard or ordinary option is adopted, the positive effects on some enterprises may outweigh the negative impacts in increasing the costs, so it will improve the profit ability of an enterprise other than deteriorate its financial conditions when it is a SME with lower costs but better effects in meeting the requirements of the regulation. Nevertheless, there are still many options besides the higher-standard measure and the ordinary measure mentioned, which will bring an increased cost between those ranges of rising costs brought by the above two measures. Meanwhile, they vary greatly, so different sectors and enterprises of different sizes can choose appropriate options based on the real conditions and their expectations for the future, in order to mitigate and minimize the negative impacts of the regulation on them. However, as a whole the positive effects potentially brought about by the regulation may outweigh those negative impacts in increasing the costs.



Meanwhile, the impacts of the regulation in increasing the costs may rapidly decrease as the scale of enterprises enlarges. Either the higher-standard option or the ordinary option will have far more impacts in increasing costs on the micro and small enterprises than the smaller or bigger medium-sized enterprises. It implies that most of the SMEs in China's wood product industry will suffer from the further worsened financial conditions after the implementation of the new EU timber regulation. Deducting the positive effects of the regulation, the adoption of forest certification may possibly bring some negative impacts to most of the SMEs which are equivalent to an increase by 5 – 15% in the product costs while the application of legality verification combined with a self-run traceability system may bring an equivalent increase by 1 – 9% in the product costs.

0.3.8 The negative impacts of the regulation may be piled up and magnified as the operating environment of SMEs in wood product industry is further deteriorated. Compared with 2008, SMEs in China's wood product industry had to pay notably more for the costs of raw materials and labour payrolls as well as extra export costs caused by the appreciation of Chinese currency (RMB) in 2011. The price of raw materials including raw wood and sawn timber increased by 10% - 30%, the payment for production-line workers in wood enterprises generally doubled, and the accumulative appreciation value of RMB was up to 6.6%, so the three factors together made the mean export cost of a unit product rise by around 30 – 40%. Therefore, the negative impacts of the regulation may be piled up and magnified under such context of a further worsened operating environment for SMEs in wood product industry.

0.3.9 There is limited room for generating surplus in Chinese wood enterprises, but they still show their capabilities of cost absorption. In 2008, the profit rates of costs in the three sectors of wood processing and wood, bamboo, rattan and palm fibre manufacturing, wooden furniture, and paper and paper products fluctuated in a range between 3.5% and 6%. In terms of sectors, the profit rate of costs in wood processing and wood, bamboo, rattan and palm fibre manufacturing was on a rise from 4.84% in 2008 to 5.89% in 2011 and the average annual increase was 5.28%. The profit rate of cost in paper and paper products fluctuated dramatically at an average annual increase by 5.42% and that in furniture manufacturing was also on a rise from 3.53% in 2008 to 5.03% in 2011 at a mean annual increase by 4.29%. It is obvious that the room for surplus generation in Chinese wood enterprises has been limited; however, they are still well capable of absorbing the rising production costs in an adverse operating environment.



0.4 The Economic Impacts of the EU Timber Regulation on SMEs in China's Wood Product Industry

0.4.1 The application of the EU timber regulation may push forward the industrial transformation and upgrading in China's wood product industry. Due to the different affected scopes of the regulation on different inputs in China's wood product industry, it may push SMEs to make technological progress to minimize the negative impacts in meeting the regulation, which may consequently urge the industrial transformation and upgrading in China's wood product industry. In the case of capital intensive transformation, the average employees at per unit enterprise assets (i.e. RMB 10,000 yuan) will go on descending in a speedup and the industry may make rapid progresses in mechanization and automation. In the other case of science and technology intensive transformation, enterprises engaged in scientific and technological research and development (R&D) will further remarkably increase, patents and new products will be rapidly developed, and the investment in the R&D of new products and technical improvement will also be swiftly added, which together will improve the holistic technical intensity across the industry.

0.4.2 The application of the regulation may lead to more large and medium-sized enterprises in China's wood product industry considering the size distribution. The impacts of the regulation vary significantly among enterprises of different size. It will have more adverse impacts on smaller enterprises while fewer on larger ones, so it may make bigger medium-sized enterprises readjust their business scale in a relatively active way in response to the regulation while small and micro enterprises and partial medium-sized enterprises may give up the EU market or even quit the wood product industry. Consequently the Chinese exporters of wood products will tend to be mainly large and medium-sized enterprises and the size distribution may further turn to large and medium-sized enterprises, so the average enterprise size of all sectors will be enlarged.

0.4.3 The implementation of the regulation may arouse changes in the sourcing and sales practices of the SMEs in China's wood product industry. The requirements towards legal source of wood and traceable production and marketing processes prescribed by the new EU timber regulation have different impacts on the sourcing and sales practices of different wood



enterprises. When the option of legality verification is adopted, the range of unit price increases of domestic wood materials will be smaller than that of imported materials. For enterprises using imported wood materials, it is more advantageous to use wood materials from Europe, USA and other developed countries to ensure the legality and traceability along the production and marketing processes. The more unorganized sourcing practice is conducted, the more difficult it is to track the wood materials. For enterprises engaged in export sales, it is obviously easier to ensure the traceability of wood products by directly selling their products or establishing a stable partnership with a certain distributor than applying unorganized marketing strategies. As a result, the implementation of the regulation may abate the enterprises' dependence upon the imported wood materials and then they may turn to use more materials imported from developed countries. It may reduce the sourcing from purchases on wood markets but increase the wood purchases from reliable partners. Moreover, it may decrease the production as OEMs but lead to more attempts in directly selling products under the enterprises' own brand names.

0.4.4 The regulation will make changes take place in the industry chain of China's wood product industry and its associated industries. The industry chain of wood product exporter may become more and more compacted. Some SMEs may extend forwards and backwards from the current link of wood processing to be comprehensive and multifunctional enterprises involving the whole industry chain. Some SMEs may establish stable partnerships with suppliers of raw materials and product distributors or even ally with them closely. Meanwhile, the proportion of purchases on the wood market may be decreased or there may even appear a dualistic sourcing pattern under which only the wood processing enterprises purchase raw materials from the wood market while those dealing with exports obtain raw materials from their self-owned plantations or purchase raw materials from long-standing suppliers. At the same time, purchasers of exported products may fade away while the direct marketing may increase.

0.4.5 The regulation may have impacts on the clustering and the geographic distribution of wood enterprises in China. The pressures of increased costs caused by the new EU timber regulation will make SMEs consider more about the transportation costs, the local research capacity in developing wood products and supportive advantages, the investment environment and the average service standard when choosing site locations. It is assumed that more and more Chinese exporters of wood products will move to the coastal east of China in particular the industrial clusters in eastern China while the material-based manufacturers dependent on domestic



wood materials will increasingly move to the places of origin of raw materials after the implementation of the EU timber regulation. Therefore, it can be presumed that a larger part of wood enterprises will still remain in the east, more and more of which will turn to be exporters, while there will be increasing wood processing enterprises in the central and the west, however, most of which will be processors reliant on domestic wood materials and SMEs selling products on domestic market. In terms of sectors, the plywood sector is possibly clustered in places of origin of raw materials in the central and the west, while the paper and pulp sector will increasingly turn up as large enterprises engaged in production and thus they will still be scattered throughout.

0.5 The Societal Impacts of the EU Timber Regulation on SMEs in China's Wood Product

Industry

0.5.1 The implementation of the EU timber regulation may further decrease the employment opportunities in SMEs in China's wood product industry and thus may cause to the issue of re-employment for partial older employees. The capital and labor force substitution in SMEs after the implementation of the regulation may further reduce the employment opportunities. The retreat of partial SMEs from the export market or even the wood product industry will abate the business population in the wood product industry to a worse extent. The lower intensity of labor and worse working conditions which are common in SMEs lead to such a situation that most of the migrant workers working in these SMEs are as old as 35 or above. If 80% of these older workers lose their jobs, it will be needed to tackle the issue of re-employment for 24,000 older workers in China's wood product industry as a whole, including 1,248 from the wooden flooring sector, 1,128 from the plywood sector and 1,816 from the paper and pulp sector.

0.5.2 The regulation may undermine the spin-off effects of SMEs in China's wood product industry in increasing farmers' income. The implementation of the new regulation will reduce the room for making profit by SMEs in wood product industry and thereby will decrease SME owners' business income. The payment for in-work workers after the implementation may increase, but there is a possibility that job cuts or retreats of some enterprises after the implementation will dramatically reduce some working workers' pay. Based on an annual pay of RMB 30,000 yuan per capita (viz. the monthly pay of RMB 2,500 yuan), the total annual loss of



pay for all laid-off workers in China's wood product industry will be up to RMB 900 million yuan, including losses of RMB 46.8 million yuan in the wooden flooring sector, 42.3 million yuan in the plywood sector and 68.1 million yuan in the paper and pulp sector. In general, the implementation of the new EU timber regulation will likely undermine overall contribution of SMEs in China's wood product industry to the income increases of farmers.

0.5.3 The implementation of the regulation and the consequent reaction may improve working conditions for employees in SMEs in wood product industry. The implementation will accelerate the process of capital and labor force substitution in SMEs as the operating environment of the industry changes. As mechanization and automatization improved in the wood product industry, the labor intensity in SMEs may be reduced and the working conditions and facilities for production-line workers may be further improved. However, the training costs may increase in order to equip them with needed knowledge and skills, otherwise, risks of industrial accidents and injuries will go up. Meanwhile, the standardized management of production and marketing processes may help improve various labor security systems and measures in SMEs. Nevertheless, the decreased profits of enterprises may affect their capability in ensuring labor security.

0.5.4 In case of uncontrolled negative impacts caused by the implementation of the regulation, the risks in securing communities of industrial clusters will increase. Paper and pulp enterprises in China are not clustering obviously while the other two sectors of plywood and wooden flooring are. In localities of SME clusters in considering the important role the wood product industry plays in local economy, the impacts of the regulation will be focused and magnified. When the value of outputs in the wood product industry reduces by 5%, the local economic growth may decrease by over 2%. When the amount of profit taxes by the wood product industry reduces by 5%, the revenue of many clustering localities will decrease by more than 1.5%. In addition, changes will take place in employment mainly in such industrial clusters. As a result, once the implementation of the regulation arouses uncontrolled negative impacts, the pressures in safeguarding a stable society will be added.

0.5.5 The regulation will help improve SMEs' awareness of environmental protection. The environmental awareness of SMEs in China's wood product industry is lame. According to a survey among 73 enterprises, 81% or 59 of them knew about the amended Lacey Act while only



33% or 24 of them knew about the new EU timber regulation. Now that China is a big power in processing and manufacturing wood products in the world, the environmental awareness of SMEs in China's wood product industry will not only have impacts on its domestic resources and environment but also on the conservation of resources and environment at global scale. The process of learning, understanding and meeting the requirements of the new EU timber regulation will serve as a process for deepening SMEs' environmental awareness.

0.5.6 The regulation will help enhance the social responsibility of SMEs in China's wood product industry. The implementation will involve more and more capable SMEs in forest certification and thus will increasingly facilitate them fulfill the corporate social responsibility in ensuring wood materials from legal source. Once taken into effect, the regulation will impel SMEs in China's wood product industry to conserve wood materials during the usage and reject wood from unknown sources, so it will help combat the illegal logging and associated trades. The regulation may also help improve SMEs' conscience of social responsibility and increasingly involve them in activities of public welfare and philanthropies by attracting more attention to their images and social effects besides business performances.

0.6 Two Extended Discussions

0.6.1 The regulation will have more impacts on SMEs in the sector of wooden furniture than those of wooden flooring, plywood, paper and pulp and etc.

This is resulted from the larger direct incidence affected by the regulation in SMEs in China's wooden furniture industry. In China's wood product industry as a whole, the sector of wooden furniture consists of the largest number of enterprises, supplies the most employment opportunities and exports the largest amount of wood products to the EU. Based on the statistics, there were 20,800 SMEs in the sector of wooden furniture in China in 2008, accounting for 99.79% of the total number of enterprises engaged in wooden furniture and there were 888,400 employees working with these SMEs, accounting for 91.60% of the total business population in the sector. Amongst them, 1,141 SMEs were dealing with the exports of wooden furniture, accounting 5.47% of the total sector, whose delivery value of exports was US\$ 40.605 billion, US\$ 13.248 billion, US\$ 4.175 billion and US\$ 23.975 billion respectively more than those of



plywood, wooden flooring and paper and pulp. It can be seen that the affected scope in the wooden furniture industry is larger.

Besides, this sector use comparatively more imported wood materials and the unit price of imported wood will be on a rise because of the regulation and the reaction to meet it, so the financial costs of the sector will be increased to a farther extent. Meanwhile, wooden furniture manufacturing uses more sorts of wood materials and its manufacturing sequences and technical process are far more complicated than the three sectors of wooden flooring, plywood and paper and pulp, therefore, even the SMEs with the same value of output will need to pay much higher costs than SMEs in the other three sectors in business administration and management when developing a self-run traceability system of production and marketing processes.

Thirdly, it is more difficult for SMEs in the sector to adapt to the impacts of the regulation. The regulation will make it harder for SMEs to make technological progresses through the capital and labor force substitution and to save workforce through mechanization and automatization. Smaller SMEs may likely quit the export market or even the wood product industry when they can no longer withstand the impacts of the regulation. Fourthly, SMEs in the wooden furniture industry may face potentially more social risks caused by the regulation. Like the wooden flooring sector and the plywood sector, once uncontrolled negative impacts of the regulation implementation occurred, it would slow down the industrial growth or even cause to zero growth of the wooden furniture sector in the clusters of SMEs, which would have enormous impacts on local economic growth and revenue and thus might increase the pressures and risks in safeguarding the community security. Just in case, meanwhile to the retreats of enterprises from the export market or even the wood product industry, the pressures of reemployment for laid-off older migrant workers will multiple.

0.6.2 The regulation may degrade the contemporary international competitiveness of Chinese wood product on the EU market

The amount and value of trades as well as its growing rate supported that Chinese wood products were very competitive on the EU market. Between 2001 and 2010, the proportion of the EU's imports of plywood from China in the total imported plywood was increased from 1.50% to



25.86%, that of wooden flooring was increased from 14.0% to 52.90% and that of paper and paper products was increased from 5.44% to 19.65%.

However, the timber regulation may have more negative impacts on Chinese wood products than its key rivals on the EU market, because firstly, the number of Chinese enterprises in wood product industry directly affected by the regulation will be much larger than those of its rivals; secondly, Chinese wood product enterprises are highly dependent upon imported wood, which will make it difficult to meet the requirements of the regulation, and thirdly, the business administration in Chinese wood enterprises is poorer and less organized when compared with wood processing enterprises in developed countries, which will lead to higher costs for their response to the timber regulation.

However, China's wood product industry may have a stroke above its major rivals in Southeast Asia in meeting the new regulation, because firstly, China keeps one step ahead of some Southeast Asian countries in R&D and technical improvement for wood products and it can better manage the adverse impacts brought by the regulation through making technical progresses and research and develop new products; secondly, associated industries are well developed in China and together they form better industrial predominance to mitigate the impacts of the regulation with the holistic ascendancy of the industry chain; and thirdly, the domestic market is mature and capacious which can help Chinese enterprises readjust business operations more easily to relieve the negative impacts caused by the regulation through selling products on the domestic market along with exports.

In general, if Chinese wood enterprises cannot achieve ideal effects in responding to the new EU timber regulation, China's wood product industry may suffer from more adverse impacts of the regulation than any other rival on the EU market and Chinese wood products will be less internationally competitive in a short run on the EU market. In contrast, Chinese wood enterprises can mitigate or even offset the negative impacts of the regulation through making technical progresses if they adopt appropriate and effective countermeasure to the regulation and thus Chinese wood products will remain competitive on the EU market.

0.7 Suggestions



Based on the above assessment on the impacts of the new EU timber regulation on SMEs in China's wood product industry, potential countermeasures are proposed as follows:

0.7.1 Awareness raising and training on the EU timber regulation should be enhanced.

Awareness of and understanding about the regulation lay the foundation for effective responses. In order to cope with the fact that Chinese wood enterprises especially a large number of SMEs know little about the regulation or even are not aware of it at all, the awareness raising and training will be the first step to take. Meanwhile, specifically thematic training workshops should be organized for SMEs potentially directly affected by the regulation to interpret the principles, requirements and possible specific approaches and measures, in order to provide guidance for them to meet the requirements.

0.7.2 A practicable and efficient domestic supporting system and a country-specific wood certification system should be formed.

Since it is a lower-cost measure to meet the requirements of the regulation, which may likely be adopted by most of SMEs in China's wood product industry, by providing a domestic legality verification system and guiding enterprises to form their own traceability systems of production and marketing processes, the Chinese government may seriously consider the provision of a domestic supporting system for enterprises to meet the new requirements based on the VPA negotiations with the EU. For this, a national wood legality verification system should be formed at first through reasonable system design and programming to ensure its convenience and efficiency and ultimately reduce the costs of SMEs to meet the requirements. Besides, targeting at different sectors based on the characteristics of their separate business practices, guidelines on how to run an all-conditioned traceability system by wood enterprises should be formulated and circulated to help SMEs in China's wood product industry meet the requirements. It is important to extend the existing forest certification at international scale, but it is difficult for the wood product industry of China which principally consists of SMEs due to too high standards and costs. As a result, based on the fact that the majority in China's wood product industry is SMEs, it should be taken into positive account to provide a China-specific forest and wood certification system with NGOs as major players under the mutual support among governments, industry associations and enterprises. Only in this way may it extend the forest and wood certification in the industry in a faster speed, in order to practically and effectively ensure the legality of wood used by Chinese wood enterprises with a



holistic view and ultimately achieve the sustainable development of China's wood product industry.

0.7.3 A long-term plan for the industrial development and the utilization of wood resources in China should be developed to ensure the national security of wood resources. Although the new EU timber regulation solely highlights the legal source and the traceable production and marketing processes, it will have profound implications on the structure of global wood resources. As a power in producing and processing wood products in the world, it will be an underlying issue for China to maintain the long-standing and stable supplies of wood materials for the long-term development of China's wood product industry. Therefore, it is suggested that the formulation of a long-term plan for the industrial development and the utilization of wood resources in China should be initiated by taking such a good opportunity of the implementation of the timber regulation, aiming at safeguard the national security of wood resources.

0.7.4 Guidance on how to actively meet the requirements of the regulation and choose appropriate approaches should be available for enterprises. The implementation of the regulation and the consequent actions taken to meet related requirements will undoubtedly cause adverse impacts on SMEs in China's wood product industry with the rising costs, but in principle its requirements blend in the developing direction of the industry towards sustainability. For this, aiming at the long-term development of an enterprise, it will be a rational choice to meet the requirements. Therefore, authorities and industry associations should encourage and guide enterprises to authentically meet the requirements other than muddling through it for the immediate benefits. Meanwhile, in order to minimize the costs but maximize the effects in meeting the requirements, enterprises should be guided to choose appropriate approaches/measures in line with their own conditions. Powerful large and medium-sized enterprises can be encouraged to apply the higher-standard option of forest certification, while smaller SMEs and even micro enterprises with less strength should be supported and assisted to adopt the suitable option to meet the requirements.

0.7.5 Data collection and analysis should be carried out in time for managing the risks in meeting the requirements. Relevant governmental departments and industry associations should collect and analyze timely data regarding the new EU timber regulation and prepare a plan for risk management. The notable risks include the readjustment of exports in a short time because of the



new requirements on exports and changed procedures in the initial stage of the implementation of the regulation, the maintenance of community security and stability in clusters of SMEs in wood product industry due to the concentration and magnification of adverse impacts of the regulation, and the social security and reemployment for the older migrant workers possibly laid off due to the regulation.

0.7.6 Supportive policies and measures should be adopted to improve the ability of enterprises in meeting the new requirements. Governmental departments should increase supportive policies for the wood product industry when reinforcing the already implemented policies to improve the adaptability of enterprises to the new regulation. First of all, it is suggested that a transitional and differentiated policy for increasing the rate of tax refund on exports temporarily for producers and processors of wood products who use legal wood materials and have a traceable system should be considered. Secondly, the merger and regrouping of enterprises should be encouraged and steered to enlarge the business scale and improve their strength. Thirdly, a plan in support of scientific and technical R&D in wood product industry should be implemented. Finally, a plan supporting the overseas marketing by wood enterprises should be launched.