

Case Study on Sino-US Trade
Friction-Sino-US Photovoltaic Dispute

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Background

- Solar photovoltaic, as a smart economic industry, has been attached importance by main countries in the world in terms of either its manufacturing or its application.
- China's photovoltaic industry has gained international competitiveness in manufacturing technology, industrial structure, and new product development and so on and once made up half the world market.
- The price of photovoltaic products declines constantly since 2011, it formed the main reason of US bankrupting and the general background of blaming China's photovoltaic industry, while Chinese industries were scapegoats of this phenomenon obviously.
- STP's declaration of bankruptcy in March 20th, 2013 marked "ice age" of China's photovoltaic industries officially arrived.

Background

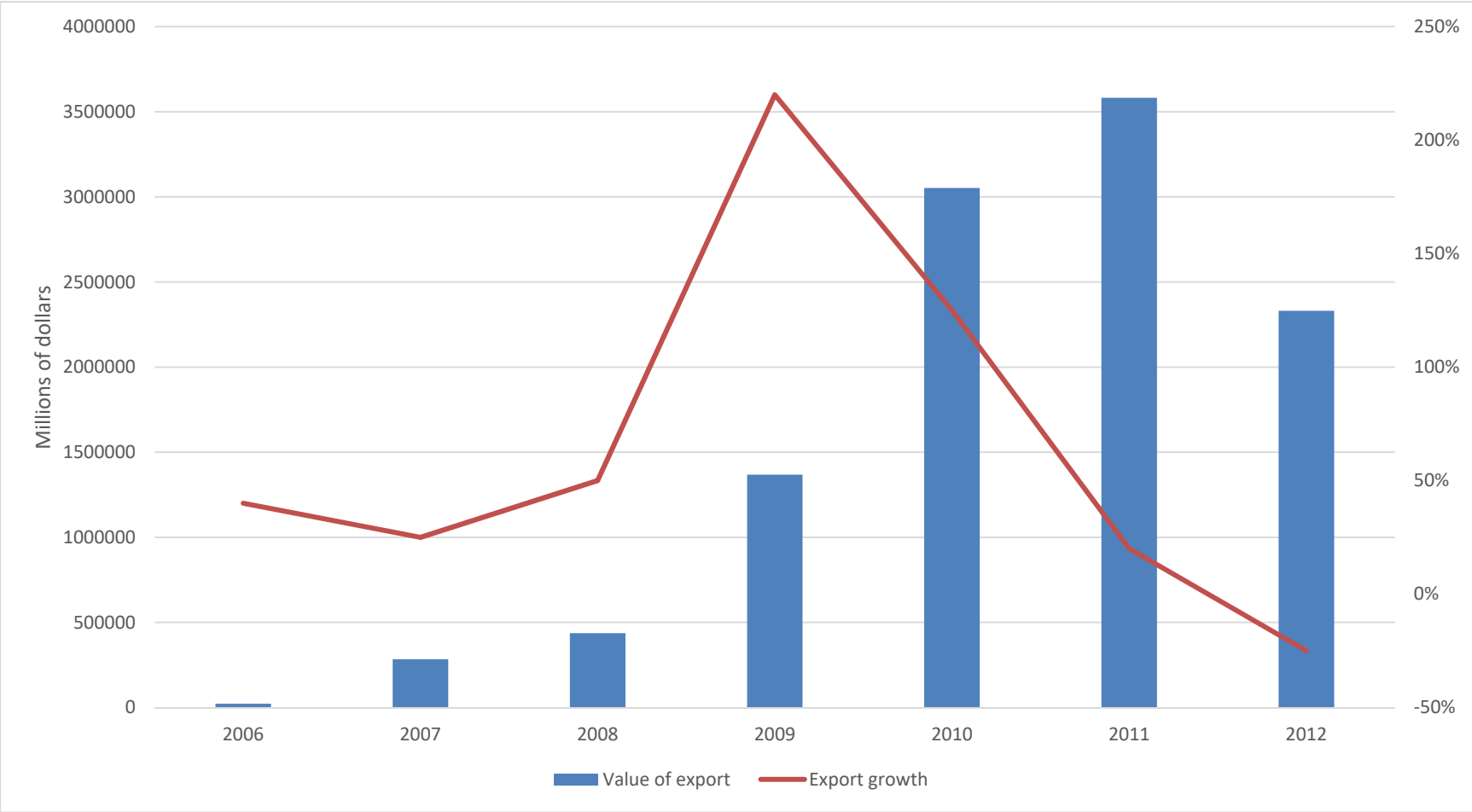
China PV products export annual data sheet(2006-2012)

Year	Exports (US \$million)	Export growth (%)
2006	22485.67	34.07
2007	283761.8	11.62
2008	437102.02	54.04
2009	1367997.95	212.97
2010	3052316.4	123.12
2011	3582108.4	17.38
2012	2330821	-34.93

Source: Chinese Department of Commerce

Background

Annual data of PV products export in China(2006-2012)



Source: Chinese Department of Commerce

Objective

- The paper elaborated the photovoltaic dispute between China and the U.S., with an analysis of the impact of the dispute on markets, employments and governments, etc. of the two nations.

Research Design and Methods

- It starts with the investigation to the whole story of Sino-US dispute on photovoltaic, and then the influence of Sino-US dispute on photovoltaic. By the analysis in this paper investigates the opposite implication in Sino-US dispute on photovoltaic completely in an empirical way of economic research.

Progress of Sino-US Photovoltaic Dispute

- “Double-anti” Progress of the U.S. to China’s Photovoltaic Products
- 1. German solar world branch of the U.S. united other 6 manufacturers took the lead in revolting China’s photovoltaic industry on October, 19th, 2011, it demanded the U.S. government to investigate China’s exporting photovoltaic products in “double-anti”.
- 2. US Department of Commerce announced final judgment on October, 11th, 2012 that levied 34% to 47% of customs duties of China’s exporting solar cell and panel products.
- 3. On December 7th, 2012, the US Commerce Department ordered to levy tariff to China’s exporting solar cell since December 7th; the period was 5 years at least. In addition, the US Commerce Department indicated that lower the dumping margin of STP from 31.73% to 29.14% in declaration.

Progress of Sino-US Photovoltaic Dispute

- 4. On December 25th, 2013, White House and US Department of Defense introduced a new deal that prohibit purchasing China's photovoltaic modules and using for military base of the U.S., while can they purchasing photovoltaic modules from the U.S. or other countries which signed FTA.
- 5. On January 23th, 2014, the US Commerce Department announced starting "double-anti" investigation to China's exporting crystalline silicon photovoltaic products and at the same time, starting anti-dumping investigation to Taiwan's exporting crystalline silicon photovoltaic products.

Progress of Sino-US Photovoltaic Dispute

- China's Fighting Progress against Trade Protection of the U.S.
- 1. On November 9th, 2011, Commerce Department of China showed dissatisfy to the trade friction that the U.S. provoked and Chinese government showed serious concern to that.
- 2. On July 20th, 2012, Commerce Department of China decided to carry out anti-dumping investigation of US and Korean polycrystalline silicon.
- 3. On July 18th, 2013, Commerce Department of China preliminary reported the solar grade silicon which originated in the U.S. and Korea existed dumping behavior. Dumping margin of the U.S. and Korea was from 2.4% to 57%.

Progress of Sino-US Photovoltaic Dispute

- 4. On January 20th, 2014, the State Council Customs Tariff Committee decided to levy anti-dumping tax to solar grade silicon that originated in the U.S. and Korea from this date and the deadline was 5 years.

Influences on Sino-US Photovoltaic Dispute

Influences on Photovoltaic Exporting of China

2010-2012 China and Taiwan's exports to the United States related to the value of anti-dumping cases.

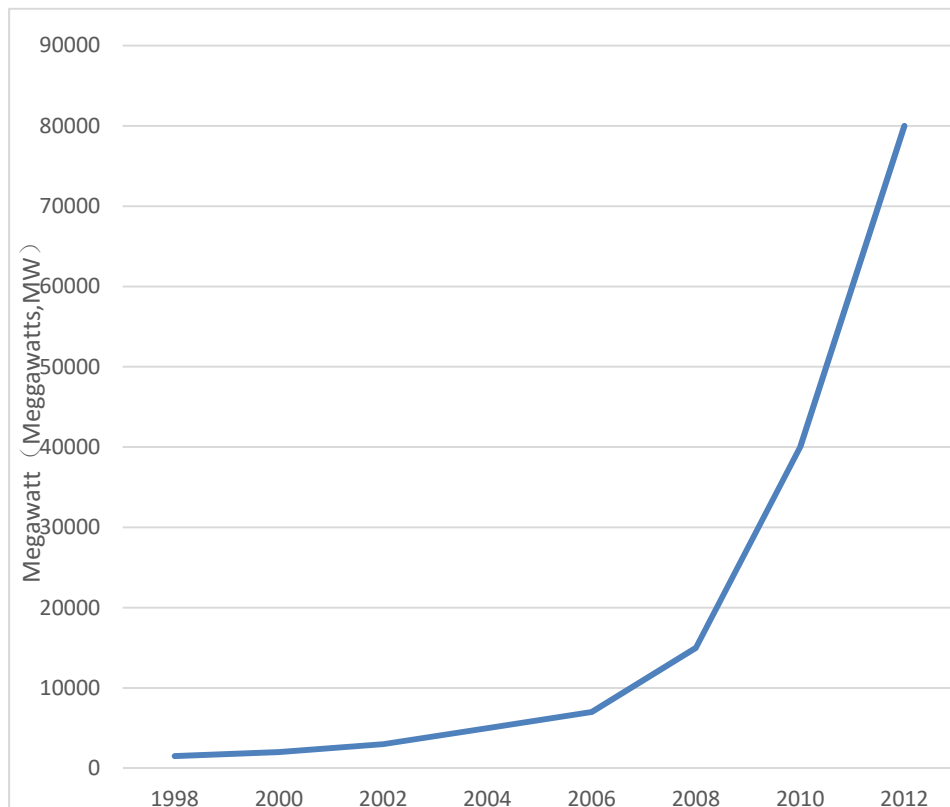
Countries and regions. Amount (\$100 million)	2010	2011	2012
China	15.2	31.2	20.8
Taiwan, China	3.4	2.6	5.1

That was only adopted Chinese photovoltaic cell modules, would they meet with anti-dumping tariff. That provided certain space to avoid “double-anti” this time for Chinese actually, it was reported that TSL and Yingli bulk purchased relative modules from Taiwan to avoid anti-dumping tariff of the U.S.

Influences on Sino-US Photovoltaic Dispute

It influenced the exporting market of the world.

World solar photovoltaic battery installed capacity



Source: Chinese Department of Commerce

The world photovoltaic market began shrink since 2012. The world PV market increases rapidly from 2006 to 2010 that was glorious 5 years of Chinese photovoltaic industries, amount of Chinese photovoltaic products exports increases as 317.23% per year. The gross export amount of Chinese photovoltaic products was 35.821 billion dollars in 2011 and growth rate was just 17.38, it is inferior by comparing with 5 years ago. It is more dismal in the first half year of 2012, gross export amount was just 12.894 billion dollars, and there were negative growth and obvious downturn trend, it is amazing that the amount had fallen 31.49% compared with 2011.

Influences on Sino-US Photovoltaic Dispute

China PV export statistics (2006 - 2012)

Year	Exports (US \$million)	Export year-on-year (%)
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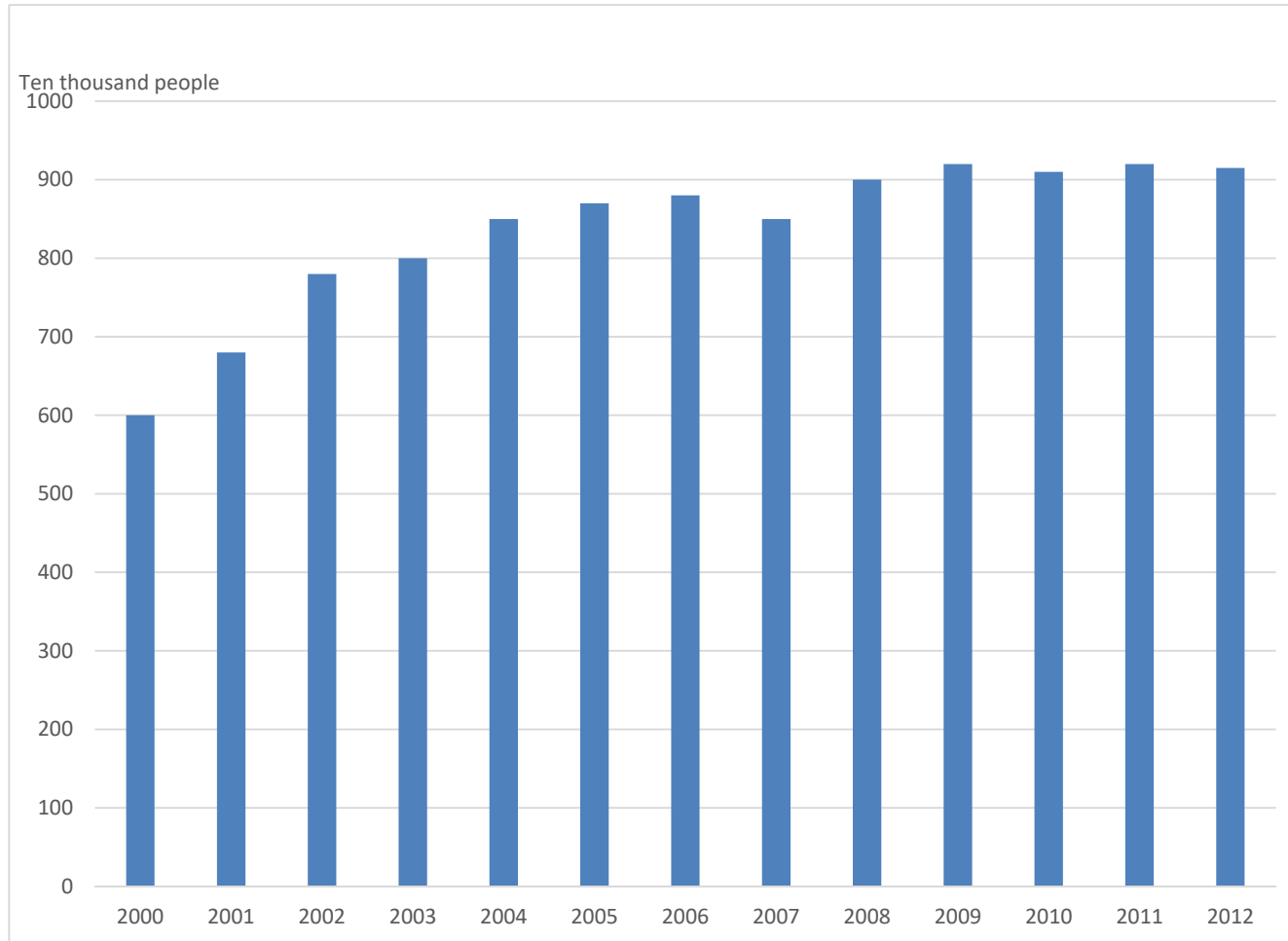
Source: Chinese Department of Commerce

Chinese photovoltaic faced huge overcapacity in 2013. Data shows that net unit billing of Chinese photovoltaic industries was 11.5 gig watts since the first half year of 2013, while domestic capacity reached 40 gig watts and it means that the condition of structural excess capacity was still obvious. Affected by trade friction, export amount of Chinese photovoltaic products decline 30.97% to 6.522 billion dollars in the first half year of 2013, main reason was the export price declined 41.07%, but amount increased 17.02%.

Influences on Sino-US Photovoltaic Dispute

Influence on Employment of China

The number of urban registered unemployed people



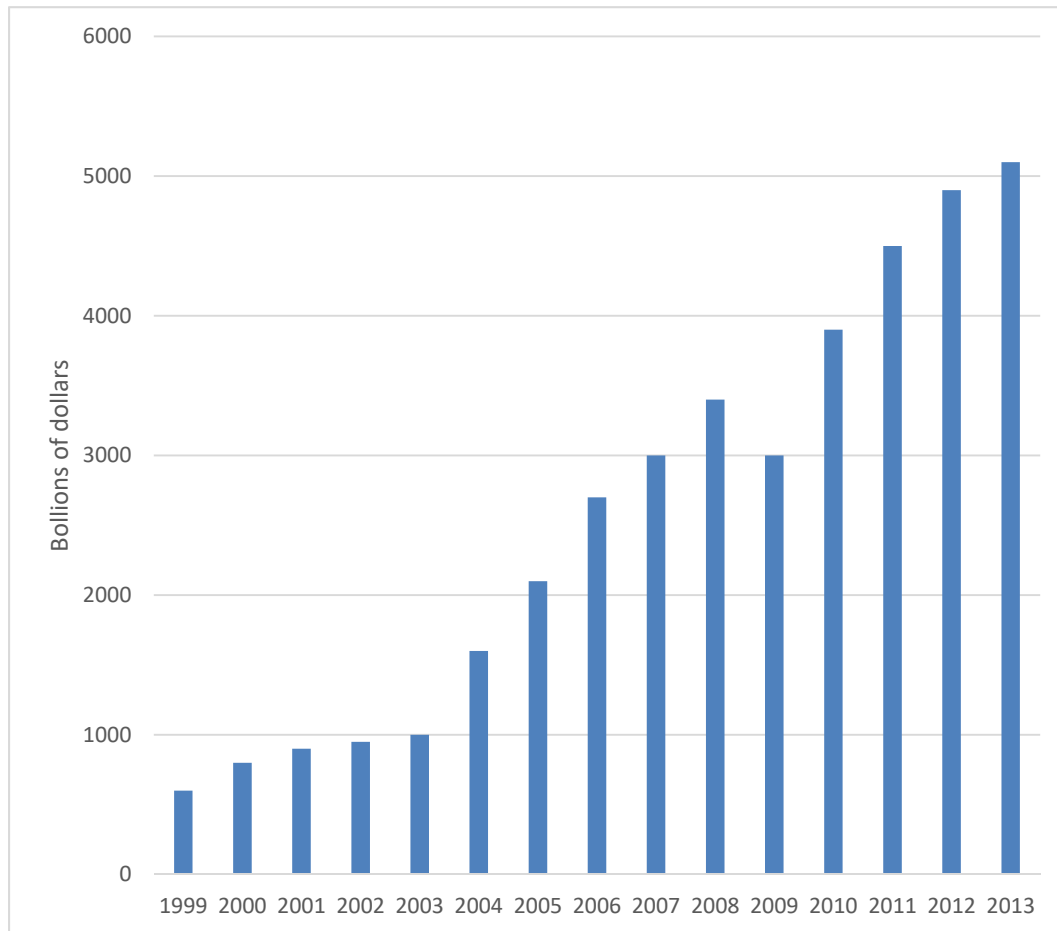
Source: Ministry of human resources and social security of China

Total production of solar photovoltaic was about 32 gig watt in 2011 and photovoltaic industry hold employment over millions people. Figure shows that Chinese unemployed population staying at a high level, while Chinese photovoltaic industries could hold vast social employment; so to speak it solved employment issues of China greatly.

Influences on Sino-US Photovoltaic Dispute

Negative Effects on Economic and Trade to Two Countries

1999-2013 Sino-US trade statistics



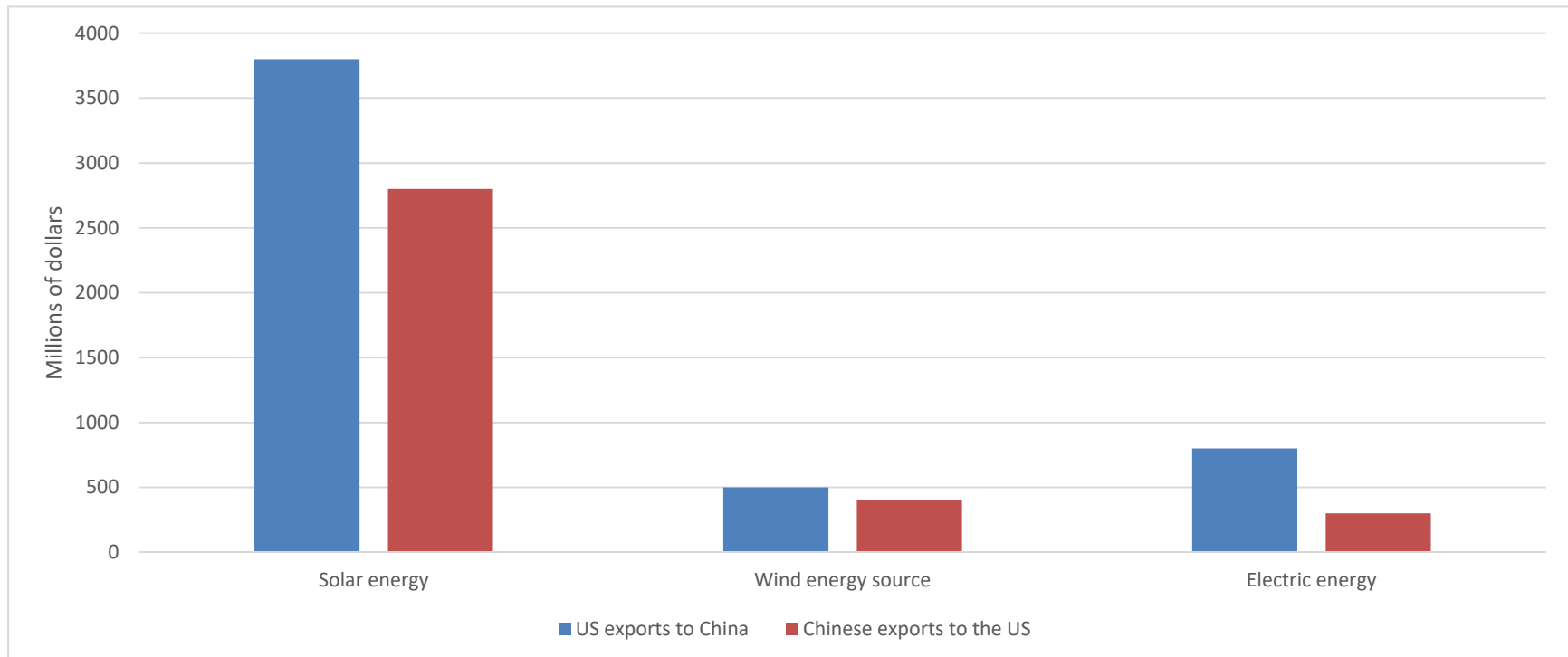
Source: Chinese Department of Commerce

Figure shows that China's foreign trade keep rapid increasing since accessing to WTO, while China's total import and export value reached 4.16 trillion till 2013 and goods trade excess the U.S. and occupied the world first. Data of China's Ministry of Commerce shows that the proportion of China's export value to the U.S. account for total China's export value was stable about 20%. Influenced by economic crisis, the proportion slightly decreased in recent years, but it still kept over 15%; trend of Sino-US trade friction were these years and photovoltaic dispute was the typical example. According to statistics, double-anti of photovoltaic this time influenced almost 2.5 billion dollars trade value of Sino-US.

Influences on Sino-US Photovoltaic Dispute

Negative Effects on Economic and Trade to Two Countries

Clean energy exchanges between China and the US in 2011



Source: Chinese Department of Commerce

While according to data in 2011, solar relative products and total trade value of service reached 600 million dollars in foreign commercial intercourse of clean energy of Sino-US. So to speak that the double-anti this time brought very bad influences to Sino-US economy and trade relationship.

Influences on Sino-US Photovoltaic Dispute

Influences on US Photovoltaic Market: The U.S. just accounted for about 10% of Chinese photovoltaic exporting market in 2010, while export amount of solar photovoltaic panel production equipment and raw material of the U.S. to China was far more than import amount of US solar photovoltaic panel China; the U.S. earned almost 2 billion dollars of favorable balance of photovoltaic product trade.(Trade frictions have left the United States with an opportunity to narrow the trade deficit.)

Influences on US Employment: The Brattle Group provided a report to predict possible impact of this case of US photovoltaic industry, the report indicates that if levy 50% tariff of Chinese photovoltaic products, employment positions would decrease 14877 to 43178 from 2012 to 2014; while if levy 100% tariff, the figure would be 16917 to 49589. And net income reduction of US photovoltaic industries would be 621 million to 2.6 billion dollars.

Influences on Sino-US Photovoltaic Dispute

US Government's Pressure from Public Opinion: Many environmental protection organizations in the U.S. also thought that "double-anti" investigation of Chinese photovoltaic cells would affect the application of this new energy in the U.S. thus put off the development of new energy and influence competitive power of the U.S.

Conclusion

According to the case of PV dispute between China and United States, it's easy to find out that United States has unscrupulously taken action to keep its self-owned advantage in the emerging strategic industry. From the case, it's available to find out that the anti-dumping and anti-bribery has brought in much more serious loss to United States PV industry than that of China. Actually, the behavior of United States seems unwise

Conclusion

Though the PV dispute between United States and China will guarantee the share of work force in the short term for United States, it'll greatly make an influence on the overall amount of trade between China and United States and the good opportunity of obtaining the trade surplus from China. Since the trade amount of PV trade between China and United States and the development trend seem to have complementary advantage, it has prodigious growth potential. Therefore, the PV trade between China and United States will do more good than harm.

Thank you for your attention!