

Sino-Arab Trade and Technology Relations^{*}

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The paper analyses the market of Arabian countries, and Sino-Arab trade, and technology relations. In the recent years, Sino-Arab trade, investment, engineering contracting, Project Contracting, and technology cooperation developed very quickly. The paper also gives some recommendations to enhance Sino-Arab trade and technology relations.

Keywords: The market of Arabian countries, Sino-Arab Relations, Sino-Arab trade and technology relations

Trade and economic cooperation, as well as scientific and technological cooperation, forms the basis of the cooperation between China and the Arab. They also play a more and more prominent role in South-South cooperation and in the development of China-Arab relations. The analysis on the characteristics of markets of the Middle East countries, the development of China-Arab economic and trade cooperation, and their existing problems will help deepen our understanding of economic and trade cooperation as well as scientific and technological cooperation between China and the Arab, and also promote China-Arab Economic and trade cooperation in various fields.

The Characteristics of the Market in Arab Countries

The Arab is one of the most important markets in the world's international trade. Foreign trade occupies a major position in the national economy in the Middle East; in Arab countries, the major industrial and living materials have to be imported; most of the crude oil, aluminum, and other chemical products, produced by these countries, are for export. The top four foreign trade countries are Saudi Arabia, the United Arab Emirates, Algeria, and Kuwait. The main commodities imported by Arabia countries are machinery and equipment, transport equipment, household appliances, textiles, clothing, food, hand tools, etc., the main commodities for export are crude oil, refined oil, chemical products, agricultural products, mineral products, textiles, and handicrafts.

To expand trade scale, the Middle East countries should strengthen trade liberalization policies, such as relaxing import restrictions, lowering tariff rates, encouraging private businesses to play a role in trade, and setting up free trade zones. They should attract domestic and foreign manufacturers to engage in import and export exchanges to accelerate the prosperity and development of the market. Saudi Arabia and the United Arab Emirates have also widened the export channels through the international commodity trade fairs, production and marketing events, the construction of trade cities, and foreign commodity exhibition, and marketing offices (WANG, 2012).

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The commodity structure of Arab countries has the characteristics of diversity. According to their different historical conditions, natural resources, economic basis, and the structure of export products, we can divide these countries into two groups: the first group is the national oil exporting countries, such as Saudi Arabia, Iraq, Kuwait, UAE, Oman, Bahrain, Qatar, Libya, and Algeria. These countries have rich oil resources, relying on the export of crude oil and natural gas to drive the development of the whole national economy. The foundation of the manufacturing industry in these countries is relatively weak, and they have to import machinery and transportation equipment. The second group includes the exporters of a variety of agricultural and mineral products, such as Egypt, Syria, Jordan, Yemen, Lebanon, Tunisia, Morocco, Sudan, etc. Most of these countries mainly export agricultural and mineral primary products (WANG, 2012). Most Arab countries are food importers, and the Middle East is also the world's major food market.

Under the combined action of specific natural conditions, social, political, and economic conditions, and international market, the Arab has formed its unique economic mode and market characteristics.

(1) The deformed petroleum economy and relatively backward civilian industry. The reliance on simply oil and gas resources has resulted in unitary economic structure, which leads to the simpleness of the export products in the Middle East countries and the absolute superiority of the primary products. In primary products, in addition to oil and natural gas, there are some special and local agricultural products, such as dates, dried fruit, and pearls. In terms of the finished products, there are also petroleum processing products and other newly developed departments, such as building materials, steel, metal products, etc.

(2) The Arabia market is characterized by “three high and one low”, with high income, high consumption, and high public expenditure, and low production self-sufficiency rate. In 2012, the per capita national income of Qatar, Kuwait, the United Arab Emirates, Oman, and Saudi Arabia rank on the list of top 50 countries of the world. The consumption demand structure of Arabia countries is mainly dominated by durable consumer goods. The consumption of luxury and durable goods is very popular, for example, the rate of car occupation is very high in these countries. In Kuwait, Saudi Arabia, and the United Arab Emirates, the figures have reached 90%, 85%, and 80%, respectively. The Gulf countries have implemented the high welfare economic policy. In these countries, health care and education are free; and housing, water, and electricity are highly subsidized. Many expenses are borne by the state. The supply capacity of consumer goods in Arabia countries cannot keep up with the growth of demand, and they cannot be self-sufficient in agricultural products.

(3) Export-oriented economic development model and export-dominated economy. Because of the unbalance in the economic structure, the primary products of Arabia countries rely on export, and oil and gas account for more than 90% of the export goods. Imported products are mainly mechanical transportation, durable consumer goods, food, arms, and other products, so the economic development depends heavily on the international market. The countries of the Middle East adopt a relatively free trade policy to promote the development of foreign trade.

(4) Develop the transnational operation of petroleum. In addition to Venezuela and Indonesia, OPEC members are all Arabia countries. In recent years, the Middle East oil producing countries have vigorously promoted the strategy of multinational operation of oil, and have turned the investment priority from the West to the East. They are actively developing oil and gas cooperation with the Asia Pacific countries including China. We must attach importance to and strengthen energy cooperation with Arabia oil producing countries. On the one hand, we should comply with the trend of transnational operation of petroleum industry in Arabia

countries. On the other hand, this can make up for the gap between China's oil demand and supply, and promote cooperation among other sectors through energy cooperation (WANG, 2012).

In 2011, the Middle East and North Africa experienced large-scale upheaval. Egypt, Libya, and Yemen experienced chaos in their regimes. The situation in Syria has still been in turbulence. Due to the domestic instability, these countries suffered from economic decline. However, the continuous operation of oil price at a high level has promoted the sustained growth of the economy in oil producing countries in the Middle East. Except for the above countries, the Middle East oil producing countries have maintained a relatively fast economic growth rate. But the turmoil in the Middle East and the debt crisis in Europe have reduced the income from tourism in the Middle East. The rise of shale gas revolution in the U.S. has reduced the demand for oil from the Middle East, which is a challenge for the Middle East oil producing countries. In 2011, the economy of Arabia non-oil exporting countries also showed an increasing trend. The economic growth rates of Morocco, Jordan, Mauritania, and Comoros were 7.40%, 5.39%, 7.61%, and 5.02% respectively.

The Situation of China-Arab Economic and Trade Cooperation and Scientific and Technological Cooperation in Recent Years

China and Arabia countries have different economic structure and trade complementarity. China's imports from the Middle East are mainly petroleum, chemical products, and metal materials such as copper, aluminum, and steel. China's exports to Arabia countries are mainly light industry products, textile, clothing, and grain, and foodstuff, including hardware and mineral, as well as machinery and equipment. The Middle East is an important project contract and labor market for China. The contracts signed by Chinese enterprises in Arabia countries involve housing, communications, transportation, oil, chemical, fishery, and medical and health-care areas. In terms of investment, China's investment in the Middle East is mainly focused on resources development, household appliances, light industry, and clothing industry. Arabia countries' investment in China mainly concentrates on light industry, building materials, real estate, and other industries.¹ There is a great space for cooperation between China and the Arabia countries in the future.

China and Arabia countries are at the critical juncture of industrial transformation and the realization of upgrading and innovation-driven development. Both sides have solid foundation for cooperation. They have carried out bilateral scientific and technological cooperation and technology transfer in the field of solar energy, wind energy, water saving agriculture, and biotechnology. China-Arab technology transfer center will focus on the construction of "one station", "three libraries", and "five systems". "One station" is the official website of the Yinchuan headquarters and bilateral technology transfer center website, to dynamically publish all kinds of information, achieving the real-time sharing between the two sides regarding policy, talents, technology, and information; "three libraries" refer to the technology transfer project library, collaborative network information database, and expert information database, to provide information and data support for the technology transfer activities; "five systems" include the China-Arab technology transfer and collaboration office system, Chinese, Arabic, and English language translation system, science and technology exhibition system, online technical transaction system, and e-commerce system, to realize the remote collaborative office, and online exchange function, etc (CHEN, FANG, & MA, 2015, p. 8).

¹ The Press Office of the Ministry of Commerce, "Economic and trade cooperation between China and the Arabia countries continues to deepen". The website of the Ministry of Commerce, <http://wujiang.mofcom.gov.cn/aarticle/dongtai/200702/20070204382129.html>.

The Characteristics of China-Arab Trade and Cooperation in Science and Technology

Bilateral trade has increased rapidly. Under the situation of economic globalization and regional economic integration, the economic and trade cooperation between China and Arabia countries is becoming increasingly close. Bilateral trade between China and Arab countries keeps increasing. In 2012, bilateral trade volume increased by \$222.4 billion US dollars, up by 14% compared with the same period last year, a historical peak. The amount of China's export to the Arab was \$91.3 billion, and the figure for import from the Arab was \$131.1 billion. The two sides have become important trading partners for each other². China's textile and clothing, machinery and equipment, electronic products, household appliances, and daily necessities are popular among consumers in the Arab. Chinese cars have become the common transportation for many Arabia families. Arabia countries' exports to China are becoming increasingly abundant. Besides petrochemicals, crude oil, and fertilizers, marble, olive oil, and sesame products are gradually entering the Chinese market. With the adjustment of China's economic structure and the transformation of lifestyle and economic development mode, especially when China is attaching more and more importance to energy saving and environmental protection, the structure of imported products from Arabia countries will also change (CAO & ZOU, 2013).

The steady development of investment cooperation. Since the 2004, with the Chinese government implementing the "going out" strategy and encouraging Chinese enterprises to carry out foreign investment, China's investment in the Arab has developed rapidly. The average annual growth rate is over 170%. In 2010, China's non-financial direct investment to Arabia countries amounted to \$788 million. The Middle East transformation in 2011 had an impact on China's investment and the size of investment declined accordingly. The investment in Arabia countries' non-financial sector was 630 million US dollars, which accounted for 1% of China's total foreign direct investment in that year. The investment sector is still dominated by mining industry, and the proportion of manufacturing industry has increased.

In 2012, China invested 1.4 billion US dollars in the Arab, an increase of 120% over the same period. The field of investment has been expanding from resource development, light industry, textile, and clothing to machinery manufacturing, automobile assembly, and so on, which has promoted the development of local industry, provided a large number of employment opportunities, and promoted the development of some local industries such as oil rigs assembly, textile, and garment. Middle Eastern countries also attach great importance to investment cooperation with China. They actively participate in influential projects in China. Arabia countries' investment in China is mainly distributed in petrochemical industry, business and trade, logistics, machinery manufacturing, and other fields. In 2012, the actual investment of Arabia countries in China amounted to 230 million US dollars, up by 77% over the same period last year. In addition, the financial institutions in the Gulf also purchased a large number of Chinese financial institutions and enterprises listed in Hong Kong and other places, and the sovereign investment funds of Qatar and Kuwait have gained about 1 billion U.S. dollars of qualified foreign investors' investment quota (YI, 2013).

The cooperation in the field of engineering contracting has achieved remarkable results. With the acceleration of infrastructure construction in Arabia countries, more and more Chinese enterprises have actively participated in the construction of infrastructure and promoted the development of local economy and society.

² Speech by Li Jinzao, Vice Minister of Commerce, at the news conference of the Information Office of State Council, July 17, 2013, http://www.china.com.cn/zhuanti2005/txt/2013-07/17/content_29446241.htm.

Affected by the political changes in the Middle East, the volume of China's engineering contracting business in the Middle East has reduced. In 2011, the total amount of newly contracted projects of Chinese enterprises in Arabia countries totaled 22.91 billion US dollars, down by 12.5% compared to the same period last year, and the total turnover was 20.58 billion US dollars, down by 8.5% compared with the same period last year. By the end of 2011, the total amount of contracted works of Chinese enterprises in Arabia countries had reached US\$170.18 billion, accounting for 20.2% of the total contracts signed by Chinese enterprises. The total turnover was 113.05 billion US dollars, accounting for 21% of the total turnover in the world (LIN, 2013, p. 84).

Technical cooperation has flourished. China has established close scientific and technological cooperation with several Arabia countries and provided mechanism guarantee for the cooperation and development. Bilateral scientific and technological cooperation and technology transfer have been carried out in the fields of wind energy, solar energy utilization, nuclear energy utilization, petroleum exploration and acquisition, water-saving agriculture and biotechnology. A bilateral joint laboratory has been established to support bilateral institutions in building long-term and stable cooperative relations (SHEN, 2015).

At present, the volume of the project turnover completed by Chinese enterprises in the Arab is growing, and Chinese companies are gradually expanding the field of construction projects, extending from the initial areas of housing construction and road and bridge construction to many new areas such as pipelines, railways, ports, communications, building materials, etc. Moreover, the level of technology and equipment has been constantly improved. The East Expressway in Algeria, the Merowe Dam in Sudan, and the cement production line in Saudi Arabia, as well as a large number of major projects, have been completed and put into operation, playing an important role in the construction of local economic and social undertakings (YI, 2013).

The Problems of China-Arab Economic and Trade Cooperation as Well as Science and Technology Cooperation and Countermeasures

Assessment of Problems in China-Arab Economic and Trade Cooperation as Well as Scientific and Technological Cooperation

Although China's economic and trade relations with Arabia countries have made great progress in recent years, there are still some problems and challenges, which are not in favor of further development of China's economic and trade cooperation with the Middle East.

The long-term turmoil in the Middle East. The instability of the domestic political situation in countries in the Middle East and the long-term turmoil have brought many obstacles to China's economic and trade cooperation with the Middle East countries. Some economic and trade agreements and business contracts signed during the peace period are fragile in face of domestic political earthquake or even civil wars in Middle East countries, which not only causes huge economic losses, but may also result in casualties.

The interference of great powers. The Middle East is rich in oil resources. It is one of the world's petroleum valves, and is the core part of the international energy system. The Middle East is the main oil supplier in the world and a place of strategic importance for the great competition. Furthermore, the Middle East is a region with the most close link with oil and geopolitical interests of the United States. The successive governments of the United States attached great importance to the policy towards the Middle East. They have invested a lot of resources in this area, and attempted to control and influence the oil in the Middle East through a series of strategies gradually. The continuous strengthening of economic and trade cooperation between

China and the Middle East countries, especially in oil and gas cooperation, is regarded as a challenge to the interests of the United States in the Middle East. In recent years, the United States has increased its presence and influence in the Middle East through the invasion to Iraq, meddling in Libya, overthrowing Saddam, and Al-qaddafi—the two hardliners in the OPEC, stepping up the sanctions towards Iran and Sudan, which has led to tremendous pressure on China's economic and trade cooperation with Sudan and Iran.

Trade imbalance. The unbalanced economic structure due to the reliance on the single resource of oil and gas in Arabia countries and their relatively backward civilian industries have led to a relatively simple product category of trade between China and the Middle East countries. China imports large quantities of crude oil and related chemical products, while exports light industrial products, durable consumer goods, and textiles. China maintains trade surplus with the Middle Eastern countries except for oil producing countries, which has resulted in anti-dumping resistance of the relevant countries. Therefore, how to keep the trade balance between China and the Middle East countries and make bilateral trade develop healthily and stably is one of the main challenges faced by China's economic cooperation with the Middle East countries (WANG, 2008).

Countermeasures and Suggestions to Strengthen China-Arab Economic and Trade Cooperation

With the speed-up of economic globalization and regional integration, international division of labor and international trade has closely connected the economies of the world together. In recent years, China has enjoyed rapid economic development, with GDP ranked second in the world, and its foreign exchange reserve has reached 350 million US dollars. China and Arabia countries both have huge market capacity and strong economic complementarity. In China's participation in the globalization process, the Middle East has become the focus region of the "going out" strategy of China's economic "opening up". The economic and trade cooperation between the two sides has broad prospects.

After research on the current situation of economic and trade as well as science and technology relations between China and Arabia countries, the author has formed some thoughts on strengthening China-Arab economic and trade cooperation as well as science and technology cooperation.

Explore the cooperation of the whole industry chain. With the technology transfer as a breakthrough point, the two sides should explore the collaboration in the whole industry chain. Based on the most extensive and urgent needs of the Arabia states, China may provide overall solution to the upgrading of the industrial level. This process involves deep-seated problems such as technology finance, intellectual property rights, and personnel training. We need to discuss the cooperation mode of technology transfer, technological innovation, and talent training in the whole industry chain as soon as possible (CHEN et al., 2015, p. 8).

Give full play to the role of universities, think tanks, and chambers of Commerce to provide intellectual support for Chin-Arab economic and trade cooperation. We should give full play to the strength of the think tanks, research institutes, and academic institutions to carry out Middle East study and research on related topics, and make suggestions for China's economic and trade relations with the Middle East. The political situation in the Middle East is unstable, but economic development and political situation are closely related. Political turmoil will often impact on the economic development, and further affect the development of China's economic and trade relations with the Middle East. Therefore, we need to strengthen the forward-looking research in the Middle East's political and economic development, prepare for changes, guard against political and economic risks, ensure the safety of personnel, and minimize the potential loss of economic and trade benefits as well as investment. We should cultivate special talents in the related fields and expand the team of economic and trade cooperation between China and the Middle East. Arabia countries are

actually quite different from each other. They are very different in personality. The relevant chambers of Commerce and associations should make full use of the advantages of their various business offices, conduct in-depth research in the local market, and guide domestic related industries, so that more and more domestic companies will have a deeper understanding of the Middle East market.³

Optimize the domestic investment environment and attract the investment from Arabia countries. In recent years, the oil price has been at a high level. The Middle East oil producing countries have accumulated rich financial capital through the oil trade, and they are in demand for foreign investment partners. In recent years, Islamic finance has grown rapidly, and its finance is about \$2.8 trillion in 2015. Saudi Arabia occupies the absolute advantage in the ten largest banks in the Gulf. According to market value, six banks in Saudi Arabia rank among the top 10 banks in Gulf; besides them, two in Kuwait, one in Qatar, and one in Bahrain. In specific, Al Rajhi Bank of Saudi Arabia ranks first with the market value of 30.992 billion US dollars, followed by Saudi American Bank (SAMBA) with market value of 14.276 billion US dollars; the National Bank of Kuwait ranks the third with the market value of \$14.38 billion US dollars; and Qatar National Bank ranks the fourth with a market value of \$12.367 billion US dollars (<http://www.mofcom.gov.cn/aarticle/i/jyj/k/201003/20100306820065.html>). In recent years, China has continuously optimized the domestic investment environment and attracted the investment of the Middle East countries.

Focus on energy cooperation and expand to other fields. Energy cooperation plays an important role in all aspects for the development of China and the Middle East. Saudi Arabia has become China's largest trading partner and energy supplier in the Middle East. Oman is the second largest oil supplier of China in the Middle East. Energy cooperation between China and Sudan starts late but develops rapidly. The economic and trade cooperation between China and the Middle East is developing with energy cooperation as the key point, promoting to all areas by drawing upon the experience gained on key points, and evolving to diversification. The field of economic and trade cooperation between China and the Middle East has covered many aspects, such as energy, commerce and trade, infrastructure, labor, food, tourism, and so on. It also extends to the cultural, educational, sports, and religious fields, and has become an important link to deepen China's economic and trade cooperation with the Middle East (YANG, 2011).

Provide service for technical cooperation. We should provide channels and services for the Arab technical cooperation, explore cooperation needs between Chinese enterprises and enterprises of Arabia countries, organize several events including docking, negotiation, and exchanges among companies, technical training, and advanced technology demonstration, promote the in-depth cooperation among enterprises of China and Arabia countries, drive the advanced and applicable technology transfer between China and Arabia countries, build a China-Arab states technology transfer collaboration network covering the entire area, and promote innovation and development of regional cooperation (SHEN, 2015).

China and Arabia countries belong to developing countries, and China is trying to promote economic transformation. Many Arabia countries are in the process of changing and adjusting to achieve better development. The two sides are both in the critical period of economic transition and upgrading; thus, their common interests and mutual demands further increase, and the complementary advantages of the two sides in

³ "Suggestion on the great Arabia free trade zone and the proposal to strengthen trade with the Arabia countries", <http://finance.sina.com.cn/roll/20050422/094429420.shtml>.

resources, market, and other aspects are becoming more and more obvious. Bilateral cooperation in trade, investment, engineering, and other fields will continue to deepen and develop, and collaboration in the service industry, agriculture, finance, logistics, energy saving environmental protection, and broader areas will also continue to expand. In the future, friendship and cooperation between China and the Arab will have a comprehensive development to a wider, deeper, and higher level (YI, 2013).

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