

KING & SPALDING

Report on Chinese Industrial Policies

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I. EXECUTIVE SUMMARY

In March 2012, the Government of China (“GOC”) issued the *National Economic and Social Development 12th Five Year Plan* (the “*12th Five Year Plan*”), covering 2011-2015. At the request of the Confederação Nacional da Indústria (“CNI”), King & Spalding has prepared this report analyzing the major economic and industrial policy provisions in the *12th Five Year Plan*. As requested by CNI, we have focused on the following industries: apparel and the cotton supply chain, biochemicals, capital goods, electric appliances, footwear, green technologies, steel products, oil equipment, and wind power generators.

The first part of the report describes the political and economic foundations of the Chinese State, the evolution of Chinese industrial policies, and the most recent national, provincial, and industry-specific five-year plans and industrial policies. The second part of the report explains the remedies available to Brazilian industries that are harmed by subsidized Chinese products.

A. Brazil-China Trade Flows

During the period covered by China’s *11th Five Year Plan*, which was in effect from 2006 through 2011, imports into Brazil of goods from the industries identified by CNI increased rapidly, in many cases displacing goods manufactured by Brazilian companies. **Tables 1 and 2** on the following pages demonstrate that, since it acceded to the WTO in 2001, China has made significant progress in exporting the goods identified for special attention by CNI. Where sectors are broad (*e.g.*, “green technologies”), the tables provide import data for a sample product. In all cases, the import growth into Brazil has been substantial -- often in the hundreds of percentage points. Considering that the GOC will continue to support companies in these sectors under the *12th Five Year Plan*, Chinese production and exports can be expected to continue to increase.

Table 1: Brazilian Imports from China (2002 - 2011) (in Thousand US\$)

Description	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	'02-'11 Pct. Change*
Textiles	93,664.2	152,673.6	251,112.7	359,510.1	607,586.3	990,773.8	1,404,023.7	1,368,733.3	2,147,836.4	2,909,856.8	3007%
Organic Chemicals	166,056.6	216,945.4	313,219.1	396,008.6	471,400.0	625,254.3	1,195,305.4	1,124,341.2	1,283,589.9	1,583,727.8	854%
Nuclear Reactors, Boilers, Machinery, Parts	163,670.0	215,088.6	410,170.5	760,800.3	1,379,784.5	2,347,222.0	3,713,274.7	3,215,480.5	5,627,810.3	6,831,005.4	4074%
Cotton, Including Thread and Yarn	155.8	55.2	2.0	94.3	2,162.1	11,950.2	14,951.2	1,110.1	2,283.5	4,189.0	2588%
Air Conditioning Machines, Parts	8,114.3	8,320.6	18,401.2	18,065.2	50,459.3	105,098.0	142,996.8	157,720.7	517,037.0	476,722.1	5775%
Refrigerators, Freezers, Heat Pumps, Parts	4,040.3	6,113.9	13,097.8	20,988.4	33,191.3	97,530.5	101,186.6	73,752.8	125,812.1	87,007.1	2053%
Phones for Wireless Networks	-	-	-	-	-	162,400.9	368,446.8	181,438.4	267,427.0	623,086.5	284%
Footwear, Gaiters, Parts	26,708.8	31,989.9	47,791.9	81,533.6	91,566.1	154,923.1	228,454.8	193,020.8	90,590.6	103,810.0	289%
Solar Cells	33.5	111.4	291.0	22.0	71.0	222.6	641.4	2,907.5	1,566.0	1,307.2	3801%
Oil & Gas Pipe	-	-	-	0.2	10,552.7	7,441.9	13,110.4	5,573.4	3,959.3	55,702.1	31470037%
Iron and Steel	25,836.6	34,508.8	73,564.9	133,926.3	259,419.4	656,219.1	1,153,182.7	693,027.7	1,851,451.3	1,836,069.1	7006%
Generating Sets, Electric, Wind-Power	-	-	-	-	1.0	3.8	30.7	48,464.4	9,202.6	117.2	11500%

Source: Global Trade Atlas (SECEX - Foreign Trade Secretariat)

* Note: Where no 2002 data available, percentage change based on the first year data are available

Table 2: Growth of Chinese Imports into Brazil from 2006 to 2011 (11th Five Year Plan)

Product/Tariff Code	2006 Import Value (Thousand US\$)			2011 Import Value (Thousand US\$)			2006-2011 Growth In Imports from China
	From China	From World	China as % of World	From China	From World	China as % of World	
Textiles/Chs. 50-63	359,510.1	2,142,058.8	16.8%	2,909,966.8	6,567,484.6	44.3%	709%
Organic Chemicals/Ch. 29	396,008.6	4,800,716.1	8.3%	1,583,727.8	9,396,640.1	16.9%	300%
Capital Goods (Nuclear reactors, boilers, machinery, parts, etc.)/Ch. 84	1,379,784.5	13,727,429.5	10.1%	6,831,005.4	33,703,064.9	20.3%	395%
Cotton (including thread & yarn)/HTS 5201-5207	2,162.1	146,064.3	1.5%	4,189.0	537,261.4	0.8%	94%
Electric Appliances (air conditioners, refrigerators, freezers, heat pumps, parts)/HTS 8415 & 8418	83,650.5	296,272.8	28.2%	563,729.2	999,999.6	56.4%	574%
Mobile phones/HTS 8617.12*	162,400.9	376,126.3	43.2%	623,086.5	964,639.9	64.5%	284%
Footwear/Ch. 64	91,566.1	149,166.7	61.4%	103,810.0	492,887.3	21.1%	13%
Solar cells/HTS 85410.16 & .32	71.0	100,273.0	0.1%	1,307.2	142,652.4	0.1%	1741%
Oil and gas pipe/ HTS 7305.11, .12, .19, .20, 7306.10, .11, .19, .20, .21, .29	10,552.7	40,749.7	25.9%	55,702.1	79,467.9	70.1%	428%
Iron & Steel/Chs. 72, 73	259,419.4	2,664,273.6	9.7%	1,836,069.1	7,583,090.2	24.2%	608%
Wind Generators/ HTS 8502.31	1.0	61,728.0	0.00%	117.2	456,279.5	0.1%	11500%

Source: Global Trade Atlas (SECEX – Foreign Trade Secretariat)

* Because there were no imports into Brazil in 2006, the ratio was calculated using the 2007 import value of US\$ 162.4 million as the base.

The growth of bilateral trade with China is changing Brazil's industrial landscape. By most accounts, China became Brazil's largest trading partner in 2009, and in 2010 Chinese goods accounted for more than 14% of imports and 15% of exports.¹ Some observers note, however, that there is an imbalance in the types of goods being traded. Whereas Brazil increasingly imports value-added and high-technology goods from China, its exports to China are increasingly limited to primary products and low-value added goods intended for consumption in China's mammoth, export-oriented manufacturing sector. This pattern has led to concern in Brazil and other countries that China's predominance in manufacturing -- however achieved -- may lead to de-industrialization in its trading partners.

Concerns about de-industrialization are understandable. The GOC spent years preparing its industries for both the opportunities and challenges that its accession to the WTO in 2001 would bring. The opportunities included the increased access to export markets that lower tariff rates would provide. The challenges included maintaining employment and domestic production in sectors where State ownership and protection from competition meant that Chinese industry was not competitive in the global market. These GOC efforts to prepare its industries were in large part set out in industrial policies, as described in section II.B, below. The GOC established numerous special funds to ensure that State-Owned Enterprises ("SOEs") had the cash they needed to modernize, and it encouraged banks to lend to those sectors the GOC had identified for growth.² The fact that China has become an export powerhouse and the world's second-largest economy demonstrates that these policies were effective.

¹ Rhys Jenkins, "China and Brazil: Economic Impacts of a Growing Relationship," *Journal of Current Chinese Affairs* (Jan. 2012).

² See section II.A.4, below, for some examples of the ways that the GOC supports domestic industries.

In recent years, Brazil’s exports to China have consisted mainly of primary materials used as inputs for manufacturing in China.³ In fact, more than 75% of Brazil’s recent exports to China are commodities such as iron, soybeans, and oil.⁴ China, on the other hand, is increasingly exporting high added-value products to Brazil, displacing merchandise produced by both Brazilian and third-country companies.

A recent study on differences in Brazil’s trade with China versus the rest of the world⁵ shows that Brazil’s exports to China are increasingly more focused on primary products and goods with little value added. Value-added goods comprise a higher percentage of Brazil’s exports to the rest of the world. As shown in the table below, primary commodities and resource-based manufactures accounted for 88% of Brazilian exports to China in 2009, as opposed to 60% of exports to the rest of the world.⁶

Table 3: Composition of Brazilian Exports to China (in percentage)

	Exports to China				Rest of World
	1996	2001	2006	2009	2009
Primary Commodities	26.2	36.6	42.9	42.8	31.6
Resource-Based Manufactures	44.5	35.7	39.7	45.3	28.6
Low Technology	14.1	8.9	8.1	1.7	7.5
Medium Technology	13.8	12.1	7.2	7.8	20.8
High Technology	1.5	6.7	1.9	2.4	7.6

Source: Calculations based on UN COMTRADE data⁷

The same study also shows that Chinese exports to Brazil are increasing in added value, based on the proportion of goods that incorporate greater levels of technology or processing:

³ Carlos G. Aguilar, “China-Brazil Relations: Disputes with Regional Implications” (Center for International Policy July 10, 2011).

⁴ *Id.*

⁵ Jenkins, *supra* note 1.

⁶ *Id.*

⁷ *Id.*

Table 4: Composition of Chinese Imports into Brazil (in percentage)

	1996	2001	2006	2009
Primary Commodities	3.4	4.3	1.4	1.6
Resource-Based Manufactures	10.9	17.0	9.5	10.7
Low Technology	39.6	20.6	16.1	20.8
Medium Technology	20.2	19.2	26.2	25.2
High Technology	25.0	38.4	46.5	41.4

Source: Calculations based on UN COMTRADE data⁸

These charts demonstrate that, although Brazil runs a trade surplus with China, this surplus is based largely on exports of primary products at unusually high prices.⁹ As the mixture of goods traded with China has tilted toward raw materials as opposed to processed goods, there has been a net loss of employment in Brazil and early signs of wage suppression.¹⁰ Moreover, Brazil's trade surplus is expected to shrink as raw material prices decline.¹¹

Brazilian products also compete with Chinese goods in third country markets. Studies show that more than 90% of manufactured goods exported from Latin American countries including Brazil compete with products manufactured in China.¹² Most Brazilian exporters have lost foreign market share to Chinese products.¹³ Brazil's four main export markets in Latin America are Argentina, Chile, Mexico, and Venezuela.¹⁴ In recent years, China has overtaken

⁸ *Id.*

⁹ *Id.*

¹⁰ *Id.*

¹¹ Aguilar, *supra* note 3.

¹² "South America Awake to the Risk of China Ties," *AsiaTimes* (Apr. 21, 2011).

¹³ Aguilar, *supra* note 3.

¹⁴ Jenkins, *supra* note 1.

Brazil in both Chile and Venezuela, notwithstanding the fact that China does not enjoy any of the advantages afforded by Mercosur or proximity.¹⁵

B. The Chinese Government And Industrial Policies

Understanding the Chinese political system and how its industrial policies influence the Chinese economy is important to any analysis of the country's recent economic success. At the top of the system, the Chinese Communist Party ("CCP") oversees the entire GOC and the State. While the CCP wields ultimate power, it delegates the authority to formulate industrial policies to subordinate agencies that are staffed by CCP members who obey the CCP's instructions. State ownership plays a central role in ensuring the CCP's dominance in the Chinese economy, because almost all of China's major companies in strategic sectors are State-owned or are otherwise closely affiliated with the State. The CCP, and by extension the GOC, ensures the adherence of these State-owned companies to its policies through a centralized system of appointments of company directors and managers. As a further bulwark against market reforms leading to a loss of control, the GOC has imposed restrictions on foreign investments in certain sectors. The GOC also steers economic development through the use of fiscal, tax, lending, procurement, and other policies to foster the growth of industries that the GOC perceives to be strategic.

China has had a fairly steady succession of "five year plans" during the communist era, with the early ones imposing quantitative production goals in the style of the Soviet Union. In the late 1970s, however, China reoriented its economic policies toward market incentives and began opening up to foreign trade. The evolving five year plans of the 1980s and 1990s reflect this fundamental change in policy. Important steps taken by the GOC during this era included

¹⁵ *Id.*

enacting legislation providing incentives for foreign investment in manufacturing and promulgating policies to promote technological improvement for industry. Such incentives, combined with China's enormous population and market potential, convinced many companies around the world that the time had come to relocate manufacturing facilities to what will soon become the world's largest economy.

The *12th Five Year Plan*, which covers the years 2011 through 2015, is a crystallization of the policies of recent decades. It lists by sector the types of advancements that the GOC seeks to achieve in economic development. Provincial governments also have promulgated five year plans to implement the general national policies in their respective jurisdictions. This report summarizes provincial plans for the provinces of Fujian, Guangdong, Jiangsu, Shandong, and Zhejiang, all of which are major industrial centers.

Under the framework of the national five year plan, GOC agencies have promulgated industry-specific policies at the national level to realize the general goals pronounced in the national five year plan. The provincial governments, in turn, emulate the national industrial policies and promulgate their own sector-specific policies to implement the national strategy. Pursuant to CNI's request, we focus on the national and provincial industrial policies pertaining to cotton, textiles and apparel, biochemicals, capital goods, electric appliances, footwear, green technologies, petroleum, steel, and wind power generators.

Cotton. The GOC has promulgated a variety of policies to both promote cotton production and stabilize prices. In 2006, the Ministry of Industry and Information Technology issued its *Opinions on Accelerating Adjustments and Promoting Upgrades in the Textile Industry*, which called for research to improve cotton production. The GOC also supports cotton producers through low-interest loans disbursed through the Agricultural Development Bank of

China. In addition, the GOC uses income tax exemptions and interventions in cotton markets to assist cotton producers. The most notable of these interventions are import and export controls on cotton. Anhui and Shandong provinces have also adopted their own cotton promotion programs.

Textiles and Apparel. The national *Textile Industry “12th Five Year” Development Plan* lists five types of products for special emphasis in development: new fiber material, textile equipment, high-performance industrial textiles, traditional textiles, and apparel. This national plan calls on government agencies to design and implement policies that will foster indigenous innovation, the creation of native brand names, and improved energy conservation and pollution control. The GOC also has promulgated the national *Industrial Textile “12th Five Year” Development Plan* and the *Chemical Fiber Industry “12th Five Year” Development Plan*. This report also summarizes provincial textile industry plans that seek to implement these national textile policies in eight major textile producing regions: Fujian, Guangdong, Hebei, Hubei, Hunan, Jiangsu, Shandong, and Shaanxi.

Biochemicals. The GOC has enacted a large number of industrial policies relating to biology generally. Current national plans include the *Bio-based Materials Industry Scientific and Technological Development 12th Five Year Special Plan*, *National Strategic Emerging Industries 12th Five Year Development Plan*, *Bio-tech 12th Five Year Development Plan*, *Biological Industry Development Plan*, *New Materials Industry 12th Five Year Development Plan*, and *Pharmaceutical Industry 12th Five Year Development Plan*. These plans all call for significant infusion of government funds to foster the development of the biochemical industry and domestic innovation. Pursuant to these national policies, Fujian, Guangdong, Jiangsu,

Shandong, and Zhejiang have issued their own policies to promote the development of the biochemical and pharmaceutical industries.

Capital Goods. The most relevant national policies are the *Equipment Manufacturing Industry Adjustment and Revitalization Plan*, *High-End Equipment Manufacturing Industry 12th Five Year Development Plan*, and *National Strategic Emerging Industries 12th Five Year Development Plan*. In these plans, the GOC identifies as national priorities aerospace equipment, satellites, railway equipment, marine engineering equipment, and smart manufacturing equipment. In recognition of these national goals, Jiangsu, Tianjin, and Zhejiang have promulgated policies to promote the development of equipment manufacturing within their respective jurisdictions.

Electric Appliances. The GOC has issued the *Light Industry Adjustment and Revitalization Plan*, *Guidelines on Accelerating the Transformation and Upgrade of China's Home Electric Appliances Industry*, *Light Industry 12th Five Year Development Plan*, *Home Electric Appliances into the Countryside Program*, and *Home Electric Appliances Old-for-New Trade-up Scheme*. These national policies are designed to promote the development of the domestic industry through both direct financial support and creation of Chinese consumer demand for electric appliances. In addition, the provinces of Guangdong and Shandong have promulgated policies to foster the growth of local manufacturers of electric appliances.

Footwear. The relevant policies are the *Light Industry Adjustment and Revitalization Plan* and *Light Industry 12th Five Year Development Plan*. These policies call for financial support to foster the continued growth of light manufactures, which includes footwear. Anhui Province, Chongqing Municipality, and Fujian Province have issued policies to promote the

growth of footwear production in their respective jurisdictions. The Anhui and Fujian plans call for establishment of industrial bases dedicated to footwear production.

Green Technologies. Relevant national plans include the *Renewable Energy Development “12th Five Year” Plan, Solar Energy Generation Science & Technology Development “12th Five Year” Specific Plan, Solar Photovoltaic Industry “12th Five Year” Development Plan, Environmental Protection Equipment “12th Five Year” Development Plan, State Environmental Protection “12th Five Year” Science and Technology Development Plan, and National Strategic Emerging Industries “12th Five Year” Development Plan*. These plans cover a broad range of technologies and products for development, ranging from renewable and alternative energy to monitoring equipment. Aware of the growth potential in this area, the provinces of Fujian, Guangdong, Hebei, Heilongjiang, Hunan, Jiangxi, Shandong, and Sichuan have each produced plans to foster the development of green technology manufacturing capabilities within their respective jurisdictions.

Oil & Related Equipment. For the oil industry, the GOC has issued the *Energy Development 12th Five Year Plan, Mineral Resources Conservation and Comprehensive Utilization 12th Five Year Plan, Implementation Opinions on Encouraging and Guiding Private Capital to Further Expand Investment in the Energy Field, Western Development 12th Five Year Plan, and High-End Equipment Manufacturing Industry 12th Five Year Development Plan*. These plans envision the construction and expansion of national oil and gas pipelines. Shanxi, Sichuan, and Xinjiang have promulgated plans to encourage petroleum production within their respective regions.

Steel. The GOC promulgated the *Iron and Steel Industry 12th Five Year Plan* to promote the continued development of the Chinese steel sector. Cognizant of the presence of many

inefficient steel plants that glut the market with raw steel, the plan calls for improvements in the quality of steel production and coordinated development of the industry. Inner Mongolia, Jiangxi, and Shandong have each promulgated policies covering local iron and steel enterprises.

Wind Power Generators. With respect to wind power generators, the GOC has issued the *Wind Power Generation Technology Development 12th Five Year Specific Plan* and *Energy Development 12th Five Year Plan*. These plans reflect the GOC's national strategy to foster the growth of domestic manufacturing and utilization of wind power generators and equipment, with a view toward future expansion of exports. Guangdong and Jiangsu have indicated a commitment in their provincial plans to fostering the development of local wind power manufacturers through significant capital infusions.

C. Countering Chinese Industrial Policies

The final portion of this report discusses potential legal remedies that the Brazilian industry may wish to pursue to address the imbalances caused by Chinese industrial policies. These include antidumping and countervailing duty (anti-subsidy) proceedings before the Brazilian government and potential challenges by the Brazilian government before the WTO. Industries in Australia, Canada, the European Union, and the United States have had significant success protecting their domestic markets from unfairly traded Chinese imports through such measures.

Countervailing duty investigations are being increasingly applied to Chinese exports. This trend is likely to continue given the fact that the automatic recognition of China as a non-market economy for antidumping purposes pursuant to China's WTO Accession Protocol is set to expire in 2016. The United States, which has conducted the most countervailing duty investigations involving China, has initiated more than 30 such cases. Canada has imposed countervailing duties on 10 Chinese products. Australia is currently collecting countervailing

duties on three Chinese products, and the European Union has imposed countervailing duties on one Chinese imported product and is conducting several more investigations. Mexico, South Africa, and India all have opened countervailing duty investigations but have not yet completed any. Some countries have also directly challenged China's support for particular industries through the dispute settlement provisions of the WTO.

Those authorities that have investigated China's industrial policies have found a broad array of support measures, many of which meet the WTO definition of a subsidy. Examples of countervailed subsidies include:

- Income tax breaks for companies with foreign investment, located in special development zones, or designated as having "high technology";
- Loans to "encouraged" industries from government-owned banks;
- Rebates of value added tax and import duties for equipment purchases;
- Low-priced land for SOEs and companies located in special development zones;
- The provision of goods and services at below-market prices by the government and SOEs, and
- Cash payments to companies based on factors such as export performance.

Some programs, such as tax incentives, are easy to identify because they are both clearly described in the laws and regulations and readily discernible on a company's tax documents. Others, such as policy lending, can be more difficult to identify. Although many industrial policies instruct that banks should increase lending to particular industries, and the *Chinese Commercial Banking Law* requires banks to consider industrial policies in their lending decisions, there is no centralized application process or record of companies using the program. Often, the only way to determine whether a particular loan was provided pursuant to a government directive is by reviewing the loan documents themselves, which are not generally available to the public.

The threat of a decision based on adverse inferences for a failure to cooperate is, however, normally sufficient for a company to provide an investigating authority with such documentation.

II. THE RELATIONSHIP BETWEEN THE CHINESE GOVERNMENT AND INDUSTRY

A. The Nature Of The Chinese State

The term “China, Inc.” has been used by numerous authors, reporters, and academics to refer to the relationship between the Chinese State and its industries.¹⁶ As reported in the *Wall Street Journal*, although government cooperation with industry is hardly unusual around the world, in China it is decidedly more pronounced:

It is the omnipresence and girth of its SOEs that distinguish China. Supported by large state subsidies and preferential financing, taxes and regulations, the SOEs are at the center of China’s drive for “indigenous innovation.” They also empower the Communist Party leadership, which controls the national SOEs and their thousands of subsidiaries and related entities. ... So when a [foreign] company goes to China to compete with a Chinese company, it often finds itself competing instead with the state. And it is the state that has the handy advantage of approving or rejecting the foreigner’s investment, or demanding the newcomer transfer technology to China before getting access.¹⁷

In the sub-sections below, we provide an overview of how the GOC interacts with and guides its industries and how it leverages its authority to encourage and support domestic companies.

1. Government decision making and transparency

Notwithstanding decades of economic reforms, the People’s Republic of China remains an authoritarian state governed by the CCP.¹⁸ Through a highly disciplined, hierarchical

¹⁶ See, e.g., Ted C. Fishman, *China Inc.* (2005).

¹⁷ “U.S. Attacks China Inc.,” *The Wall Street Journal* (Feb. 3, 2012).

¹⁸ Richard McGregor, *The Party: The Secret World of China’s Communist Rulers* 1-33 (2010).

command-and-control system that permeates society by operating behind the scenes in all formal public institutions, the CCP maintains a monopoly on power.¹⁹

At the top of the Chinese system, the Standing Committee of the Politburo makes the most crucial decisions in all aspects of politics, economics, society, and foreign relations.²⁰ The 7 current members of this committee oversee the Politburo, which in turn governs the Central Committee overseeing the entirety of the CCP. Subordinate organs staffed by CCP members implement the decisions of the central leadership, which is ultimately expressed in formal instructions through public institutions and their policies.

The CCP maintains this command structure in public institutions through its extensive party apparatus, the most notable parts of which are the Organization Department and its Disciplinary Commission. The Organization Department is responsible for appointments in public institutions, which can extend to large SOEs.²¹ The Disciplinary Commission ensures the obedience of these appointees by direct supervision, investigation, and imposition of consequences for failure to follow CCP policy.²²

The National Development and Reform Commission (“NDRC”) is the most important government agency for most Chinese industries. It is connected to the State Council at the top of the central government. The NDRC writes China’s industrial plans with input from the CCP

¹⁹ *Id.*; *How China is Ruled: Communist Party*, BBC News website (Oct. 8, 2012), available at <http://www.bbc.co.uk/news/world-asia-pacific-13904437>.

²⁰ McGregor, *supra* note 18, at 12-13.

²¹ Christopher A. McNally, *Strange Bedfellows: Communist Party Institutions and New Governance Mechanisms in Chinese State Holding Corporations*, 4(1) *Bus. & Politics* 101 (2002).

²² *How China is Ruled: Discipline Commission*, BBC News website (Oct. 8, 2012), available at <http://www.bbc.co.uk/news/world-asia-pacific-13904439>.

Central Committee,²³ provincial and municipal governments,²⁴ and other governmental and quasi-governmental entities.²⁵ Lower levels of government then adopt their own derivative plans in accordance with the general prescriptions of the national plans.²⁶

The process of creating industrial policy is open in some respects but closed in others. It is open in the sense that the GOC will reach out to entities that it believes may have insight into certain issues and solicit their recommendations. It is closed, however, in the sense that much of the actual decision making is not transparent and is generally inaccessible to the public -- especially in the early stages. Non-Chinese companies operating in China have negligible influence over the process. Not surprisingly, the policies resulting from this process tend to favor wholly “Chinese” entities.

The GOC’s penchant for secrecy and its impact on industrial policy are exemplified by the incarceration of an asset management company official for obtaining yet-to-be-released macroeconomic data from China’s central bank,²⁷ and the case of Rio Tinto executive Stern Hu, who was arrested during negotiations over the price of iron ore for China’s steel mills.²⁸ Although extreme, these incidents indicate the seriousness with which the GOC views the protection of economic and industrial data, as well as the relative difficulty of accessing reliable

²³ Memorandum from Office of Policy, Import Administration to Assistant Secretary for Import Administration at 18 (May 18, 2012) (Section 129 Determination for C-570-911, C-570-913, C-570-915, C-570-917) (“Section 129 Memo”).

²⁴ *Id.* at 17-18.

²⁵ *See id.* at 21-23; *see also* section II.E, below, for discussion of industry-specific plans.

²⁶ Section 129 Memo, *supra* note 23, at 11.

²⁷ “Executive Jailed in CPI Data Leak Case,” *The Economic Observer* (July 27, 2012).

²⁸ “Aussie Mining Exec Arrested for Spying in Magazine,” *Time* (July 9, 2009).

data that is readily available in many other countries. For these and other reasons, it is often difficult to obtain timely, accurate information about how, exactly, “China, Inc.” operates.

Chinese law also is often intentionally vague and unevenly enforced. Industrial policies are no different, and the evolution from early plans that announced compulsory production targets to more recent ones focusing on improvements in product quality, as opposed to quantity, mean that there can be considerable latitude in determining what some aspects of plans really mean. Given the vastness of China and its diverse geography and economic circumstances, provincial and local officials enjoy considerable discretion in interpreting and implementing national industrial policies. National policies frequently do not specify the agencies and programs that are responsible for fulfilling the goals under those policies. Instead, the national policy is purposefully vague, anticipating that lower level officials will follow the national policy as a general guideline, but choose the appropriate measures in view of local conditions.²⁹

Adding to the uncertainty, many local officials in China are evaluated based on the economic growth in their jurisdictions. There is an incentive for such officials both to push the limits of law and policy in order to perform better than other jurisdictions -- often providing incentives off-the-books -- and to exaggerate reports of economic growth.

Pressure to distort or fudge statistics likely comes from up high -- and it's intense. “China announces its annual objective of GDP growth rate each year. In Chinese culture, the government has to reach the objective; otherwise, they will ‘lose face,’” said Gary Liu, deputy director of the China Europe International Business School's Lujiazui International Financial Research Center. “For

²⁹ See, e.g., Sebastian Heilmann, *From Local Experiments to National Policy: The Origins of China's Distinctive Policy Process*, 59 *China J.* 1, 1-2 (2008) (“This policy process, in which central policy-makers encourage local officials to try out new ways of problem-solving and then feed the local experiences back into national policy formulation, has been a pervasive feature in China's economic transformation.”); Randall Peerenboom, *China's Long March Toward Rule of Law* 18 (2002) (“To take account of regional variations, laws are necessarily broadly drafted and local government and administrative officials are given considerable discretion in interpreting and applying national laws.”).

instance, the government announced that it wanted to ensure a GDP growth rate of 8 percent in 2009, and it has become the priority for government officials to meet that objective.”

But local and provincial governmental officials are the ones who actually fiddle with the numbers. They retain considerable autonomy and power, and have a self-interested reason to manipulate economic statistics. When they reach or exceed the central government's economic goals, they get rewarded with better jobs or more money. “The higher [their] GDP [figures], the higher the chance will be for local officials to get promoted,” explained Liu.³⁰

... [O]bfuscation means China's real economic health is difficult to assess. Most indicators that would help an intrepid economist correct the government numbers -- progress on infrastructure projects, end-user purchases, and the number of “resigned” workers -- are not public.

The Chinese economic system is an enigma. It is at the same time open yet closed, flexible yet rigid. The national government sets certain targets, and often provides instructions as to how it would prefer to reach those targets, but at the same time individual agencies and officials are generally free to adopt the approaches they believe best for achieving the targets. As a result, it is relatively easy to identify the goals established by the national authorities and the general categories of support that may be available from government sources to help enterprises achieve these goals. It is more difficult, however, to identify the measures actually used to support individual companies. Such measures are often informal or *ad hoc*, and to the extent that written records exist they are not often made available to the public. It is sometimes possible to identify such measures from newspaper articles and company financial statements, but the fact that one company received support in a particular form does not necessarily mean that the same support would be available to similarly situated companies.

³⁰ Jordan Calinoff, “How China Cooks Its Books,” *Foreign Policy* (Sept. 3, 2009).

2. State ownership

Notwithstanding decades of economic liberalization, the GOC continues to own a predominant proportion of Chinese enterprises.³¹ SOEs may account for as much as 40% of the country's total economic output.³² As recently reported in *The Economist*, the influence of China's SOEs is substantial:

Of 42 mainland Chinese companies in the *Fortune*500 list of the world's biggest firms in 2010, all but three were owned by the government. Carl Walter, a Beijing-based investment banker, said in a recent book that getting as many companies as possible into that select group was a matter of deliberate policy. China's own list of the 500 biggest Chinese companies spans 75 industries. In 29 of these not a single private firm makes the grade and in ten others they play only a minor part. The government-owned enterprises in these 39 state-dominated sectors control 85% of the total assets of all the 500 companies in the list, according to researchers from the China Enterprise Confederation which compiled it. In 2010, 75 of the confederation's list of the 100 biggest publicly traded Chinese firms were controlled by the government.³³

The GOC keeps a tight leash on many SOEs. The State-Owned Assets Supervision and Administration Commission ("SASAC") is a ministry-level organ in the State Council which directly supervises more than 100 major companies.³⁴ There are also provincial and local level commissions or similar bodies that administer many of the SOEs owned by provincial and local governments.

³¹ See Section 129 Memo, *supra* note 23, at 14 & n.52. China had an estimated 114,500 SOEs as of 2010, which were administered by various levels of government, and which actually represents a reduction over years past. Cheng Li, "Top Leaders of Major State-Owned Enterprises," *China Leadership Monitor* (Hoover Institution 2011), available at <http://www.hoover.org/publications/china-leadership-monitor/article/68001>.

³² A. Szamoszegi & C. Kyle, U.S.–China Economic & Security Review Commission, *An Analysis of State-owned Enterprises and State Capitalism in China* 90 (2011).

³³ "The Long Arm of the State," *The Economist* (June 23, 2011).

³⁴ Li, *supra* note 31, at 3.

The GOC exercises control over SOEs either through its direct ownership of enterprises or through holding companies with controlling shares in enterprises.³⁵ The government also influences SOE behavior through the CCP and its system of appointments.³⁶ All top leaders in the largest SOEs are CCP members.³⁷ The GOC ensures their loyalty through its system of appointments and the implicit threat of consequences for failure to abide by government policies.

Furthermore, the CCP maintains networks of party organizations that are embedded in companies -- including private firms.³⁸ Because CCP membership is very useful for career advancement, CCP members in these embedded organizations generally want their CCP personnel dossiers to demonstrate a record of compliance with CCP policies.³⁹ Therefore, these embedded organizations further ensure that companies make decisions in accordance with CCP (and hence governmental) policy.

The GOC also has designated certain industries as “strategic” and declared that these industries will remain under absolute government control. Major decisions for companies in these industries are made by the GOC, which will also limit the actions of non-state entities doing business in these industries.

“State capital must play a leading role in these sectors, which are the vital arteries of the national economy and essential to national security,” State Assets Supervision and Administration Commission (SASAC) Chairman Li Rongrong said ... Li said that the State should solely own, or have a majority share in, enterprises engaged in power generation and distribution, oil,

³⁵ Li-wen Lin & Curtis J. Milhaupt, *We are the (National) Champions: Understanding the Mechanisms of State Capitalism in China* 34-46, Working Paper No. 409 (Columbia University Nov. 1, 2011).

³⁶ *Id.* at 38; Section 129 Memo, *supra* note 23, at 30-33.

³⁷ Li, *supra* note 31, at 21.

³⁸ Section 129 Memo, *supra* note 23, at 33-36.

³⁹ *Id.* at 36.

petrochemicals and natural gas, telecommunications and armaments.

The State must also have a controlling stake in the coal, aviation and shipping industries, he said. . . . Central SOEs should also become heavyweights in sectors including machinery, automobiles, IT, construction, iron and steel, and non-ferrous metals, he added

Li Zhaoxi, deputy chief of the Enterprise Research Institute affiliated to the State Council Development Research Centre, yesterday said that by explicitly publishing the “key sectors,” State capital can be channeled to priority industries and retreat from non-essential areas.⁴⁰

Government control over companies wholly owned by the government but not operating in the “strategic” industries is somewhat less. The government and the CCP will appoint the leaders of these companies, who will be expected to make decisions consistent with government policy and in the best interest of the country, and not necessarily in the best interest of the company. A multitude of GOC entities also own minority shares of numerous companies. The pervasiveness of GOC’s control is less in such companies, but still present.⁴¹ As recently reported by the U.S.-China Economic and Security Review Commission:

With China’s large, state-owned sector; elaborate, top-down economic planning; single-party, authoritarian rule; and a judiciary that is required to generally favor the party and the government, the independence of any one company or industry is doubtful. Some companies in China, such as Huawei, the telecommunication equipment giant, prefer to be considered neither owned nor controlled by the government. Huawei insists that it is privately held by the employees of the company, but ownership and level of control can be difficult to determine, since the government itself and the CCP may wish to avoid the issue. Some Chinese SOEs are actively traded on public stock exchanges, in China and abroad, leading some investors to assume that they have been privatized.

⁴⁰ “China Names Key Industries for Absolute State Control,” *China Daily* (Dec. 19, 2006).

⁴¹ See generally A. Musacchio & S. Lazzarini, *Leviathan in Business: Varieties of State Capitalism and their Implications for Economic Performance*, Harvard Business School Working Paper, No. 12-102 (June 2012).

But this is often not the case. China Mobile, for example, is traded on the Hong Kong and New York exchanges and yet is owned by the central government and managed by SASAC. In some cases, the government may appear to be only a minority shareholder, and yet the Communist Party may be in charge of picking the directors and the top management.⁴²

Finally, all companies operating in China are expected to adhere to official industrial policies, which provide the GOC with another means of control. Companies that fail to adhere to such policies risk having permits denied, financing cut off, electricity curtailed, land use rights revoked, and any number of other potential penalties.

Chinese government ownership of companies, and the resulting State control over industry, has been resurgent in recent years. In particular, the GOC stimulus provided in response to the 2008 global financial crisis was directed through State-owned banks primarily to SOEs. In his 2012 speech to the Communist Party's 18th National Congress, President Hu rejected calls for the State to limit its dominant role in China's economy. The GOC subsequently reaffirmed its intention to maintain close control over many industries, limiting the activities of foreign companies to only those roles specifically assigned to them in light of China's development needs.

3. Limitations on foreign activities

The GOC tends to implement policies that favor national companies. One tactic is to grant necessary business or operating licenses only to favored enterprises. For example, in its 1995 *Interim Regulations on Guiding the Orientation of Foreign Investment and Catalogue of Guidance on Foreign Investment Industries*, the GOC specified 4 categories of industries for foreign investment: encouraged, permitted, restricted, and prohibited. Through these

⁴² U.S.-China Economic and Security Review Commission, *2012 Report to Congress*, at 67 (Nov. 2012).

regulations, the GOC is able to offer inducements for investments in encouraged industries and prohibit foreign investment in industries it seeks to control more closely.⁴³

As discussed briefly in section II.A.2 above, the GOC has declared a number of industries “strategic.” Consequently, the role that non-Chinese entities can play in these industries is limited. As reported by the *Financial Times*,

[i]n 2006, the Chinese government identified seven “strategic” industries where the state would maintain “absolute control” – , electricity generation and distribution, petroleum and petrochemicals, telecommunications, coal, civil aviation and waterway transport.

Beijing has also designated industries such as machinery, automobiles, electronics, construction, steel, chemicals and information technology as “pillar” industries where the state must maintain a “strong influence”.⁴⁴

As an example, a steel policy in effect during 2006-2010 limited foreign investments in Chinese steel firms to large-scale foreign enterprises that had a high degree of technical ability and produced annually either more than 10 million tons of raw steel or more than 1 million tons of high-grade specialized steel products.⁴⁵ Moreover, the plan prohibited foreign investors from acquiring controlling shares in Chinese steel enterprises.⁴⁶ The GOC has only recently relaxed this restriction.⁴⁷ At present, foreign investment is tolerated -- but only for qualified foreign

⁴³ *Interim Regulations on Guiding the Orientation of Foreign Investment* (June 20, 1995).

⁴⁴ “Hu rejects calls to reform state’s role,” *The Financial Times* (Nov. 8, 2012).

⁴⁵ Iron and Steel Industry Development Policy, No. 35 (2005) (N.D.R.C. July 8, 2005) (Article 23), available in Chinese at http://www.ndrc.gov.cn/zcfb/zcfbl/zcfbl2005/t20050719_52618.htm.

⁴⁶ *Id.* (“外商投资我国钢铁行业，原则上不允许外商控股。”) (“With regard to investments in our nation’s steel industry by foreign businesses, as a matter of principle, foreign controlling shareholders shall not be permitted.”).

⁴⁷ Notice of Publication of “Iron and Steel Industry ‘12th Five Year’ Development Plan,” No. 480 (2011) (Ministry of Indus. & Info. Tech. Oct. 24, 2011), available in Chinese at <http://www.miit.gov.cn/n11293472/n11293832/n11294072/n11302450/14319693.html>.

investors with technologies that the GOC seeks to acquire.⁴⁸ The strategy is to limit investment opportunities to foreign firms that have technological expertise or other resources that China could not develop independently in a reasonable period of time and to entice these firms to transfer such resources and know-how to Chinese companies.⁴⁹

Another tactic employed by the GOC is to give preferential access to raw materials and other inputs to favored firms. In 2009, the United States requested consultations through the WTO dispute settlement process with respect to China's restraints on the export of certain raw materials.⁵⁰ The raw materials subject to the export restraints were various forms of bauxite, coke, fluorspar, magnesium, manganese, silicon carbide, silicon metal, yellow phosphorus, and zinc. The United States argued that the export restrictions artificially increased supplies in China, making the materials less expensive, and decreased supply elsewhere, making them more expensive for non-Chinese companies. The Panel and subsequently the WTO Appellate Body found that many of the challenged measures were inconsistent with China's WTO obligations.⁵¹

In recent years the GOC has enacted a number of policies to encourage "indigenous innovation." These policies seek to encourage and support native companies, not foreign companies, in developing new technologies. As reported in *The Economist*, foreign companies operating in China are shut out of such support programs.

This scheme to encourage what the government calls "indigenous innovation" focuses on seven "strategic" industries, from alternative energy and low-carbon-emitting vehicles to information technology. *First Financial Daily*, a Chinese newspaper, reported

⁴⁸ Amy Li, "China Eases Investment Rules for Foreigners," *The Wall Street Journal* (July 29, 2012).

⁴⁹ Szamoszegi & Kyle, *supra* note 32, at 66-71.

⁵⁰ See *Appellate Body Report, China - Measures Related to the Exportation of Various Raw Materials*, WT/DS394/AB/R, WT/DS395/AB/R, WT/DS395/AB/R (Feb. 2, 2012).

⁵¹ *Id.*

that investments by these industries could amount to as much as \$1.5 trillion over five years, of which the state is likely to contribute 5-15%.⁵²

The clear intention behind these efforts is to help Chinese industries develop technologies to address one of its current shortcomings -- a reliance on foreign technology and intellectual property. A second purpose is to have Chinese companies own the rights to the technologies that will drive the nation's economy in the future.

The GOC has favored domestic technologies in its government procurement policy:

Foreign businesses in China have fought most bitterly over a new government procurement policy, launched in 2009, that favours products listed in catalogues of "indigenous innovation" technologies. They feared that the new regulations would shut them out of a multi-billion-dollar market. Under considerable international pressure from Western governments, Chinese leaders relented, promising that products supplied by foreign-invested firms in China would be treated like those of Chinese businesses. But in a recent report the American Chamber of Commerce in Beijing said several regulations still needed to be changed before these pledges could be implemented. In a survey a quarter of its members said they were already losing business because of "indigenous innovation" policies and 40% expected business to suffer in the future. Most of the American high-tech companies in China covered by the survey expressed concern.⁵³

The GOC also favors domestic industries in law enforcement. In 2008, China adopted a new Anti-Monopoly Law. Until recently, it "has been directed primarily at foreign companies that are trying to acquire native Chinese businesses as well as mergers of multinational companies that have a presence in China."⁵⁴ Perhaps most famously, in 2009 the GOC refused

⁵² "The Long Arm of the State," *supra* note 33.

⁵³ *Id.*

⁵⁴ "China Sets Antitrust Milestone with Investigation into Large SOEs," *Financial Times* (Nov. 15, 2011).

to allow the Coca-Cola Company to buy the China Huiyuan Juice Group.⁵⁵ Although there are signs that this law could eventually be applied impartially, at present it is another way in which the GOC seeks to favor certain domestic companies and industries and, in particular, deny foreign companies too much of the Chinese market.

4. Support for industry

The GOC supports domestic industries through a wide array of mechanisms, including overt payments, tax breaks, low-cost loans, and preferential access to input materials and land. Official industrial policies often identify industries and sometimes even individual companies for special government support. In addition to the “declared” preferences described above, support may also come through less apparent means such as special treatment when obtaining licenses and approvals, as well as import/export regimes intended to create favorable market conditions within China.

In 2006, China provided a long-overdue notification of its subsidies practices to the World Trade Organization.⁵⁶ This submission confirmed the existence of subsidy programs relating to, among other things:

- Preferences for foreign investment in “encouraged” activities;
- Promoting research and development (“R&D”) and the transfer of technology;
- Accelerating agricultural industrialization and promoting forestry;
- Developing integrated circuits; and
- Encouraging companies to upgrade technology and equipment.

⁵⁵ “Coca-Cola Purchase of China's Huiyuan Fails to Pass Antimonopoly Review,” *Chinaview* (Mar. 18, 2009).

⁵⁶ China - New and Full Notification Pursuant to Article XVI:1 of the GATT 1994 and Article 25 of the Agreement on Subsidies and Countervailing Measures, G/SCM/123/CHN (Apr. 13, 2006).

This submission, however, lacked much of the information required by the relevant WTO agreements. Among other things, it contained little data on the recipients of the subsidies or an indication how much they received. It also failed to address any subsidies provided by provincial and municipal governments.

China updated its WTO subsidies notification in 2011, but this new submission suffers from all of the deficiencies of the first.⁵⁷ Many of the small number of new programs identified related to “high and new technology” enterprises and renewable energy resources, such as wind turbines. The notification also identified a new funding mechanism for promoting trade in agricultural, light industry, and textile products. The United States subsequently provided a “counter-notification” of more than 200 apparent subsidy programs in China, many discovered during the course of countervailing duty investigations.⁵⁸ The U.S. submission covered support for a broad range of industries and locations within China, including support for green technologies and exporters in a variety of Chinese cities.

The information available indicates that SOEs receive the majority of the support provided by China’s preferential policies and practices. As summarized in a recent report prepared for a Congressional Commission in the United States:

China’s SOEs are potentially formidable competitors because they benefit from a number of government preferences in China. . . . SOEs and their subsidiaries benefit from preferred access to bank capital, below-market interest rates on loans from state-owned banks, favorable tax treatment, policies that create a favorable competitive environment for SOEs relative to other firms, and large capital injections when needed. Further, Chinese SOEs also

⁵⁷ China - New and Full Notification Pursuant to Article XVI:1 of the GATT 1994 and Article 25 of the Agreement on Subsidies and Countervailing Measures, G/SCM/N/155/CHN, G/SCM/N/186/CHN (Oct. 21, 2011).

⁵⁸ Request from the United States Pursuant to Article 25.10 of the Agreement, G/SCM/Q2/CHN/42 (Oct. 11, 2011).

appear to dominate China's expanding government procurement market.⁵⁹

Policy Lending. Access to financing is an important way in which the government promotes encouraged industries and discourages investments not consistent with its industrial policies. China's banking sector is dominated by 4 "commercial" banks and 3 "policy" banks, all of which are owned by the government. Due to the underdevelopment of the domestic capital market for debt and equity issuances, these banks effectively determine the allocation of investment capital to firms in China.⁶⁰ Although the 4 nominally commercial banks consider commercial risks and benefits, the evidence indicates that they primarily see themselves as agents of State power.⁶¹ The heads of these banks and their branches are appointed by the CCP, and they have close relationships with both the local governments and the heads of SOEs.⁶² Not surprisingly, SOEs tend to be better treated and may receive lower-cost loans and debt forgiveness.⁶³

Examples of preferential lending in China abound. In 2005, for examples, the government of Jilin Province in northeastern China issued the *Guidelines on Property Resolving Financial Debts of State-owned Enterprises*, under which certain SOEs received exemptions

⁵⁹ Szamosszegi & Kyle, *supra* note 32, at 2.

⁶⁰ *Id.* at 51.

⁶¹ *Id.* at 51-55. See also Vincent Mok, Godfrey Yeung & Xiaoping Xu, *The Determinants of Lending by Banks in China*, Chinese Economic Association (UK) 2008 Conference Papers (Apr. 2008).

⁶² Szamosszegi & Kyle, *supra* note 32, at 52.

⁶³ *Id.*

from, or reductions in, payment of loan interest and forgiveness of some debts.⁶⁴ A renowned Chinese economist, Justin Yifu Lin, explains that

[s]ince 1983, when disbursements of [government] funds were renamed as loans, and [remittances of] profits became distinct from taxation [by the government], the government has been subsidizing State-owned enterprises with low-interest bank loans, and thus State-owned enterprises' bank loans all bear the characteristics of policy loans directly or indirectly.⁶⁵

According to Fengfu Huang, chairman of the All-China Federation of Industry & Commerce, who surveyed the financing costs of enterprises in Zhejiang Province in 2012, SOEs that are under the direct supervision of the central government enjoy loan interest rates as low as 5.3% on average, whereas large-scale private enterprises receive loan interest rates at around 10% at best, and the average interest rate for small loans is 20%.⁶⁶

Information available from bank websites and company reports indicates that policy lending can benefit even companies without State ownership, so long as those companies fulfill other State goals, such as maintaining employment. For example, one branch of China's central bank and regulator, the People's Bank of China ("PBOC") supported a local government in rescuing a large manufacturer of apparel. In 2012, this PBOC branch convinced a number of local banks to provide the failing company with a credit line of RMB 4.1 billion (US\$ 650

⁶⁴ "Jilin Resolves State-owned Enterprises' Financial Debts with 'Nine Measures'," *China Economic Times* (June 23, 2005), available in Chinese at http://chinaneast.xinhuanet.com/2005-06/23/content_4500859.htm.

⁶⁵ "Justin Yifu Lin: Relationship Among State-owned Enterprises, Bank Reform, and Capital Markets," *Sohu.com* (Sept. 16, 2004), available in Chinese at <http://business.sohu.com/20040916/n222077847.shtml>.

⁶⁶ "State-owned Enterprises Become King," *Southern Weekly* (Jan. 3, 2013), available in Chinese at <http://www.infzm.com/content/84688>.

million), as well as loans of more than RMB 700 (US\$ 111 million).⁶⁷ The company acknowledged that the low rates charged saved it more than RMB 8 million (US\$ 1.2 million). The company also received long-term foreign currency loans from several banks in 2007 at interest rates of between 1.52 and 2.82% to help it increase export capacity. The PBOC benchmark for loans with same terms was 7.11%.⁶⁸

Currency Undervaluation. China is also widely reported to maintain an undervalued currency in order to increase the competitiveness of its industries in foreign markets. As explained by C. Fred Bergsten at the Peterson Institute for Economics in 2011, “The artificially low value of the renminbi — it is 20 to 30% less than what it should be — amounts to a subsidy on Chinese exports and a tariff on imports from ... other countries.”⁶⁹

The GOC has allowed the renminbi (literally, “the people’s currency,” also often referred to by the more colloquial “yuan”) to appreciate in recent years but, as indicated above, it is still not where it would be without massive government intervention. Reports indicate that the GOC purchases between US\$ 1 and 2 billion each day to prevent the renminbi from appreciating too quickly. China can afford to do this because of its enormous trade surplus. The Chinese central bank “sterilizes” the dollars earned from foreign trade by removing those dollars from commercial banks by means of selling government bonds to commercial banks, engaging in

⁶⁷ *Shandong Province Zichuan District Government and Bank Join Forces to Provide Customized Services to Support Lu Thai Textile to Increase Exports in Difficulties*, (Nov. 30, 2012), available in Chinese at http://jinan.pbc.gov.cn/publish/jinan/1190/2012/20121203151350748575415/20121203151350748575415_.html (People’s Bank of China website).

⁶⁸ *2012 Semi-annual Report of Lu Thai Textile Co., Ltd.*, at 128-131; see also *RMB Loan Benchmark Interest Rate of Financial Institutions*, (July 6, 2012), available in Chinese at http://www.pbc.gov.cn/publish/zhengcehuobisi/631/2012/20120706181352694274852/20120706181352694274852_.html (People’s Bank of China website).

⁶⁹ C. Fred Bergsten, “An Overlooked Way to Create Jobs,” *The New York Times* (Sept. 28, 2011).

foreign exchange swaps with banks, and outright transfer of bank deposits into the central bank.⁷⁰ The GOC engages in such transactions at least twice a week.⁷¹

Income tax. As discussed above and in the industry-specific sections below, the GOC provides income tax preferences to certain companies.⁷² These preferences began years ago with investors in those areas China initially opened to foreign trade, followed by foreign investors in companies engaged in encouraged activities, primarily manufacturing, and most recently by investors in “high and new technology” projects. The preferences generally come in the form of reductions or exemptions. For example, until 2008 the corporate income tax rate in China was 33%. Companies located in certain economic development zones or with the requisite level of foreign investment could, however, have all income tax exempted for several years and then reduced by half almost indefinitely. When China lowered its corporate income tax rate to 25% at the start of 2008, it also changed the types of companies eligible for incentives from those with foreign investment to those certified as having “high and new technology.” This new policy, discussed in section II.B.4, below, reflects a change in the GOC’s priorities as the country has developed economically.

Direct Payments. China also has a number of programs that provide direct payments to companies. Grant payments are often related to developing Chinese-owned intellectual property,

⁷⁰ Chenying Zhang, *Sterilization in China: Effectiveness and Cost* 11-14, Wharton Working Paper Series, No. 10-29 (University of Pennsylvania Sept. 2010).

⁷¹ *Id.* at 13.

⁷² See sections II.C, II.D, and III.B.1, below, for tax preferences under the current five year plan and industrial policies. These policies generally call for tax incentives without specifying the applicable taxes, because local authorities have some discretion in interpreting and implementing the policies. **Table 12** in section III.B.1 lists some tax preferences: Local governments can exempt or reduce the enterprise income tax they collect from companies. The government can grant exemptions or reductions of the value-added tax collected from sales or import tariffs based on the company’s satisfaction of requirements stated in the relevant policy.

technological innovation, or upgrading equipment to make facilities more efficient. Additional information on the programs under which these payments are made appears in the discussion of industrial plans in section II.E, below.

Tax rebates. Another important direct payment used to guide economic activity is the rebate of value added taxes (“VAT”) upon exportation. The GOC collects VAT on sales (except for exports), importations of goods, and the provision of services for the processing, repair, and replacement of goods.⁷³ Most Chinese goods are subject to VAT at the rate of 17%, whereas grains, water, and gas are subject to a 13% VAT.⁷⁴ Since 1985, the GOC has maintained an export VAT rebate mechanism to “strengthen the international competitiveness of Chinese exporting products, expand exports, increase employment, ensure the balance of international income and payment, increase the national foreign-exchange reserve, and promote the continuous, fast, and healthy development of the national economy.”⁷⁵ The GOC frequently amends the rate of this tax rebate in order to either encourage or discourage the exportation of certain products. For example, to help Chinese companies cope with the global financial crisis,⁷⁶ the GOC issued 6 notices in 2008 and 2009 raising the rebate rates for exportation of goods that the GOC wished to encourage.⁷⁷ Some categories of goods did better than others. The export

⁷³ *Interim Regulations of the People’s Republic of China on Value Added Tax*, Decree of the State Council of China No. 538, at Article 1 (Nov. 10, 2008).

⁷⁴ *Id.* at Article 2.

⁷⁵ *Decision of the State Council on Reforming the Current Export Rebate Mechanism*, Guo Fa (2003) No. 24 (Oct. 13, 2003).

⁷⁶ See “Measures to Stimulate Exports ‘Due Out Soon,’” *China Daily* (Sept. 8, 2012).

⁷⁷ See *Notice on Raising Export Rebate Rates for Certain Commodities*, Cai Shui (2008) No. 138 (Oct. 21, 2008); see also *Notice of the Ministry of Finance and the State Administration of Taxation on Further Raising Export Rebate Rates for Certain Commodities*, Cai Shui (2009) No. 88 (June 3, 2009); *Notice of the Ministry of Finance and the State Administration of Taxation on Raising Export Rebate Rates for Commodities Including Light Textiles and Electronic Information Products*, Cai Shui (2009) No. 43 (Mar. 27, 2009); *Notice*

rebate rates for several textile products increased 3 times, eventually reaching 16%.⁷⁸ The export rebate rates for certain electrical and machinery products, such as regulators for wind power generators and machines for extruding synthetic textile materials, increased to 17%.⁷⁹ In contrast, the GOC eliminated the VAT export rebate in 2007 for a number of exports it wished to discourage: salt, solvents, cement, liquid propane, liquid butane, liquefied petroleum gas, fertilizer, chlorine, chemical dyes, metal carbides, activated carbon, leather, wooden particle boards, disposable wooden products, non-petroleum welded pipe, non-alloy aluminum rods, and non-motorized boats.⁸⁰ At the same time, the GOC also reduced the export rebate rates for leather handbags to 5%, and reduced the rebate for apparel to 11%.⁸¹

Government Procurement. Finally, the GOC also has embarked on a program to assist domestic industries through procurement. During the period of the *11th Five Year Plan*, energy-saving and green technology products accounted for approximately 65% of China's total government procurement of goods, totaling RMB 272.6 billion in value.⁸² The most recent list

of the Ministry of Finance and the State Administration of Taxation on Raising Export Rebate Rates for Textiles and Apparels, Cai Shui (2009) No. 14 (Feb. 5, 2009); *Notice of the Ministry of Finance and the State Administration of Taxation on Raising Export Rebate Rates for Certain Electrical and Machinery Products*, Cai Shui (2008) No. 177 (Dec. 29, 2008); *Notice of the Ministry of Finance and the State Administration of Taxation on Raising Export VAT Rebate Rates for Commodities Including Labor-intensive Products*, Cai Shui (2008) No. 144 (Nov. 17, 2008).

⁷⁸ See Cai Shui (2008) No. 138, *supra* note 77; see also Cai Shui (2009) No. 43, *supra* note 77; Cai Shui (2009) No. 14, *supra* note 77.

⁷⁹ Cai Shui (2008) No. 177, *supra* note 77; see also Cai Shui (2009) No. 88, *supra* note 77.

⁸⁰ *Notice on Reduction of Export Rebate Rates for Certain Commodities*, Cai Shui (2007) No. 90 (June 19, 2007), available in Chinese at <http://www.zftcc.gov.cn/main/ztlz/ckts/zcwj/T189505.shtml>.

⁸¹ *Id.* The full list covered 1714 categories of products in the GOC's tariff schedule. See *id.* (appendices listing products covered by the elimination/reduction of export rebates).

⁸² *Based on Domestic Reform and Opening, Promote the Government Procurement Work to A New Stage -- A Speech at the National GPA Negotiation Response Work and Government Procurement Work Meeting*, (May 26, 2011), available in Chinese at

of the energy-saving products for government procurement issued by the Ministry of Finance on December 26, 2012, covers 30 categories of products, including computers, automobiles, air conditioners, and electrical transformers.⁸³ On the same day this list was made public, the Ministry of Finance updated its list of green technology products for government procurement to cover 45 categories of products, including computers, automobiles, furniture, and building materials.⁸⁴

Examples of recent government procurement include:

- In November 2008, “to stimulate domestic demand, and to promptly convert central government investments into market demand,” government-owned electric power companies launched procurement plans under the direction of the National Energy Administration and signed contracts for power transmission and transformer equipment and materials totaling RMB 9.5 billion in value.⁸⁵
- CNR Changchun Railway Vehicles Co., Ltd. signed a procurement contract for RMB 3.9 billion with Beijing Railway Bureau in April 2011.⁸⁶
- Jiaxing City in Zhejiang Province procured a total of RMB 1.6 billion of medical supplies and medicines from 2010 to 2011, leading to year-on-year growth of

http://gks.mof.gov.cn/redianzhuanti/zhengfucaigouguanli/201105/t20110531_555729.html (Ministry of Finance website).

⁸³ *Notice of the Announcement of the 13th “List of Energy-saving Products for Government Procurement”* (Dec. 26, 2012), available in Chinese at http://gks.mof.gov.cn/redianzhuanti/zhengfucaigouguanli/201212/t20121226_721894.html.

⁸⁴ *Notice of the Announcement of the 11th List of Environmental Mark Products for Government Procurement*, (Dec. 26, 2012), available in Chinese at http://gks.mof.gov.cn/redianzhuanti/zhengfucaigouguanli/201212/t20121226_721895.html.

⁸⁵ “RMB 4 Billion Central Government Investment in Power Grids Brings RMB 9.5 Billion Procurement Orders,” *Guangming Daily* (Nov. 17, 2008), available in Chinese at http://www.gmw.cn/01gmr/2008-11/17/content_859885.htm.

⁸⁶ “CNR CRH5 Train Obtains Another RMB 3.8 Billion Order,” *China Securities Journal* (Apr. 28, 2011), available in Chinese at http://www.ccg.gov.cn/gysh/jdix/cgxw/201104/t20110428_1582927.shtml.

47.1%.⁸⁷ The total value of government procurement in the city in 2011 was RMB 4.1 billion, reflecting year-on-year growth of 92.1%.⁸⁸

- The prospectus of Wuhan Chopper Biology Co., Ltd., an animal vaccine producer, shows that the company's revenue from government procurement totaled RMB 132.5 million, RMB 148.9 million, RMB 169.0 million, and RMB 103.9 million in 2009, 2010, 2011, and the first half of 2012, respectively, accounting for 79.6%, 76.9%, 78.6%, and 85.8 % of the total sales revenue.⁸⁹

Governmental policies that direct investment to strategic sectors, such as power generation, frequently create opportunities for SOEs because of their dominance of these same industries.⁹⁰ The GOC's national policy on the development of science and technology, for example, mentions government procurement as a method for fostering indigenous innovation and creation of indigenous technical standards.⁹¹ Furthermore, local officials "may be predisposed to favor local SOEs who contribute revenues to local coffers," and who enjoy close relationships with the local officials.⁹²

B. Industrial Policies Over Time

Since the founding of People's Republic, the GOC has been deeply involved in guiding industrial development. The industrial policies issued by the authorities have evolved together with the Chinese economy. Whereas early plans often amounted to little more than quantitative production targets for strategic and staple goods, more recent plans set out goals that are much

⁸⁷ "Jiaxing Government Procurements Exceed RMB 4 Billion for the First Time," *China Government Procurement News* (Feb. 15, 2012), available in Chinese at http://www.ccg.gov.cn/dfchannel/zhejiang/201202/t20120215_1994560.shtml.

⁸⁸ *Id.*

⁸⁹ *IPO Prospectus of Wuhan Chopper Biology Co., Ltd. (Report Version)* (Sept. 6, 2012), available in Chinese at http://www.csrc.gov.cn/pub/zjpublic/G00306202/201209/t20120919_215052.htm.

⁹⁰ Szamosszegi & Kyle, *supra* note 32, at 57.

⁹¹ *Id.* at 56.

⁹² *Id.* at 57.

more nuanced and that favor quality over quantity, consistent with China's economic development.

In general, drafting a plan takes years because it involves setting up teams of experts who then incorporate suggestions from stakeholders which include the CCP, the central, provincial, and local governments, deputies to the National People's Congress, and others.⁹³ The sections below describe some of the key features over China's most important industrial policies over time, highlighting their change in general focus.

1. The early plans

China's *National Economic and Social Development 1st Five Year Plan* was finalized in 1955.⁹⁴ This plan, like many other early plans, gave specific directives on virtually all aspects of the economy. For example, the plan decreed that the total amount of investment for the industrial sector during the relevant period would be RMB 26.6 billion and specified that heavy industries should receive approximately one quarter of available funds.⁹⁵

2. China opens to the world

In December 1978 the CCP decided to undertake a fundamental reform of the economic system. At the Third Plenary Session of the Eleventh Central Committee of the CCP, the Party made an announcement with profound implications for the world:

[W]e are now, in the light of the new historical conditions and practical experience, adopting a number of major new economic measures, conscientiously transforming the system and methods of

⁹³ See "How Is the '11th Five Year' Plan Formulated," *China Net* (Mar. 6, 2006), available in Chinese at <http://www.china.com.cn/chinese/zhuanti/sw/1143309.htm>.

⁹⁴ "An Introduction of the First Five Year Plan," *China History Net* (July 28, 2009), available in Chinese at http://www.hprc.org.cn/wxzl/wxysl/wnj/diyyigewnjh/200907/t20090728_16962.html.

⁹⁵ The Second Five Year Plan (1958-1962), also called "The Great Leap Forward," ended in catastrophe and mass starvation. See generally Frank Dikötter, *Mao's Great Famine: The History of China's Most Devastating Catastrophe, 1958-62* (2011).

economic management, actively expanding economic co-operation on terms of equality and mutual benefit with other countries on the basis of self-reliance, striving to adopt the world's advanced technologies and equipment and greatly strengthening scientific and educational work to meet the needs of modernization.⁹⁶

The CCP promulgated this “4 Modernizations” program after the death of Mao Zedong to shift the basic economic system away from the strict command economy that the GOC previously imposed under Mao.⁹⁷ Although the CCP's central leadership pronounced this policy only in general terms, the statement marked a radical shift in thinking that signified official permission at the highest levels for market-oriented economic development. Not long afterward, the GOC authorized special economic policies in the provinces of Fujian and Guangdong,⁹⁸ eventually creating 2 special economic zones,⁹⁹ and then opened up still more areas for economic experimentation.¹⁰⁰

China's five year plans changed to reflect the state of economic reforms. The *National Economic and Social Development 6th Five Year Plan* (1981-1985), for example, called on the country to “strongly expand foreign trade, effectively utilize foreign funds, and actively introduce advanced technologies meeting the domestic needs.” The goals included an annual growth rate of 5% in industry and agriculture; stability in market prices by ensuring adequate supply; construction of defense industry and enhancements for armed forces; balancing of the

⁹⁶ “Communiqué of the Third Plenary Session of the 11th Central Committee of the Communist Party of China (Adopted on December 22, 1978),” *Peking Review* (Dec. 29, 1978) at 11, available at <http://www.marxists.org/subject/china/peking-review/1978/PR1978-52.pdf>.

⁹⁷ *See id.* (referencing quotations of Mao Zedong as authority for new policy).

⁹⁸ *New China Archive: Establishment of Special Economic Zones*, (Oct. 12, 2009), available in Chinese at http://www.gov.cn/test/2009-10/12/content_1436678.htm (Central People's Government of China website).

⁹⁹ *Id.*

¹⁰⁰ *Id.*

budget; attraction of foreign investment capital and introduction of foreign technology; and population control and allocation of labor resources.¹⁰¹

In the *National Economic and Social Development 7th Five Year Plan (1986-1990)*, the GOC ceased specifying investment amounts allocated to particular sectors and industries.

In 1994, the State Council issued its *Decision on Further Deepening the Reform of Foreign Trade System*, which was intended to build a foreign trade system compatible with common international rules.¹⁰² Major reform measures include implementing a new foreign exchange system, using legal and economic measures to adjust foreign trade activities, and curtailing the power of local governments and official trading companies over imports and exports.¹⁰³

3. The search for capital

Following its decision to open up its economy to the world, the GOC determined that it would need foreign capital to achieve its goals. In 1986, the State Council issued the *Provisions of the State Council for the Encouragement of Foreign Investment*, which authorized tax incentives and preferences in lending, land, facilities, and utilities for foreign investors.¹⁰⁴ Five years later in 1991, the new *P.R.C. Income Tax Law on Enterprises with Foreign Investment and Foreign Enterprises* and the *Rules for the Implementation of the P.R.C. Income Tax Law on Enterprises with Foreign Investment and Foreign Enterprises* re-worked the available income

¹⁰¹ “The 6th Five Year Plan (1981-1985),” available at <http://www.china.org.cn/english/MATERIAL/157619.htm>.

¹⁰² *Decision of the State Council on Further Deepening the Reform of Foreign Trade System* (Jan. 11, 1994), available in Chinese at http://news.xinhuanet.com/ziliao/2005-03/17/content_2709309.htm.

¹⁰³ *Id.*

¹⁰⁴ *Provisions of the State Council for the Encouragement of Foreign Investment* (Oct. 11, 1986), available at http://www.law-lib.com/law/law_view.asp?id=3910.

tax incentives through, *inter alia*, creating the popular “2 Free, 3 Half” program. This new program exempted foreign invested enterprises (“FIEs”) from income tax for 2 years from the start of profitability and reduced income tax liability by half in the following 3 years, with the potential for almost unlimited extensions. The inducements continued in 2000, when the Ministry of Finance and the State Administration of Taxation issued a *Circular Concerning the Issue of Tax Credit for Business Income Tax for Homemade Equipment Purchased by Enterprises with Foreign Investment and Foreign Enterprises*, which authorized FIEs to obtain tax credits of up to 40% of the purchase value of Chinese-made equipment.

Provincial and local governments, which compete with each other for investment and the economic growth needed for the promotion of their officials, followed the lead of central authorities in attempting to induce investments. One county in Shanxi Province, for example, offered a 30% discount on the price of land use rights to foreign invested enterprises engaged in “productive” activities (which is essentially synonymous with manufacturing). It also offered preferential lending and exemptions and reductions of local taxes and administrative fees.¹⁰⁵

The GOC’s efforts to attract foreign investment were very successful. In 1978 there was no meaningful foreign investment in China. There has been a steady increase since China’s WTO accession such that in 2011 the figure was US\$ 116 billion.¹⁰⁶

¹⁰⁵ “Preferential Investment Policies of Dali County,” in *Investment Guidance of Shanxi Province* (Feb. 27, 2007), available in Chinese at <http://www.shaanxiinvest.gov.cn/zsfg/show.asp?id=485>.

¹⁰⁶ *Statistical Communiqué on the 2011 National Economic and Social Development*, (Feb. 22, 2012), available at http://www.stats.gov.cn/english/newsandcomingevents/t20120222_402786587.htm (Nat’l Bureau of Statistics website); see also “China Economic Performance in the Long Run: Reformist Policies Since 1978 Produced Three Decades of Dynamic Growth,” available at <http://www.oecd.org/dev/chineseeconomicperformanceinthelongrunreformistpoliciesince1978producedthreedecadesofdynamicgrowth.htm> (OECD website).

Table 5: China Foreign Direct Investment Inflows (US\$ billion)

2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
46.9	52.7	53.5	60.6	60.3	69.5	74.8	92.4	90.0	105.7	116.0

Source: China Ministry of Commerce and National Bureau of Statistics

Such success has led to a situation where the Chinese economy has developed to the point where its leaders no longer believe that the country needs so much foreign capital. Consequently, many of the incentives available to foreign investors have been removed. The new *Enterprise Income Tax Law*, effective starting in 2008, for example, offered no incentives to foreign investors generally; instead, it encouraged activities in “high and new technologies,” as discussed in section II.B.4, below.¹⁰⁷

4. Focus on technology and innovation

The GOC for decades has sought to introduce new technology to further Chinese industry.¹⁰⁸ In 1985, the CCP Central Committee issued the *Decision on Reform of the Science and Technology System*, which called for cooperation between enterprises and research institutions.¹⁰⁹ That policy emphasized the need to significantly improve the governance of State research institutions, the recruitment of persons with the appropriate skills and talent (as opposed to political connections), and investment by government agencies and State enterprises in research institutions.¹¹⁰ One decade later, the CCP Central Committee and the State Council

¹⁰⁷ P.R.C. Enterprise Income Tax Law (adopted by Nat’l People’s Congress Mar. 16, 2007), available at http://www.fdi.gov.cn/pub/FDI_EN/Laws/GeneralLawsandRegulations/BasicLaws/P020070327495400001563.pdf.

¹⁰⁸ “Communiqué of the Third Plenary Session of the 11th Central Committee,” *supra* note 96, at 11.

¹⁰⁹ *Decision of the Central Committee of the Communist Party of China on Reform of the Science and Technology System* (Mar. 13, 1985), available in Chinese at http://news.xinhuanet.com/ziliao/2005-02/07/content_2557482.htm.

¹¹⁰ *See id.*

issued the *Decision on Accelerating the Improvement in Science and Technology*, which offered support to increase science and technological development through means including grants and policy loans.¹¹¹

In 2006, the CCP Central Committee and the State Council issued a further *Decision on Implementing the Science and Technology Plan and Strengthening the Indigenous Innovation* (the “*Innovation Decision*”) to carry out the landmark *National Mid and Long-term Science and Technology Development Plan (2006-2020)* issued a year earlier.¹¹² This plan,¹¹³ which is intended to strengthen indigenous innovation, lists eleven general fields of applied research for emphasis:

- Energy;
- Water and mineral resources;
- Environment;
- Agriculture;
- Manufacturing;
- Transportation;
- Information technology and modern services;
- Population control and health;
- Urbanization and urban development;

¹¹¹ *Decision of the CCP Central Committee and the State Council on Accelerating the Improvement in Science and Technology*, Zhong Fa (1995) No. 8 (May 5, 1995), available in Chinese at http://news.xinhuanet.com/misc/2006-01/07/content_4021977.htm.

¹¹² *Decision of the CCP Central Committee and the State Council on Implementing the Science and Technology Plan and Strengthening the Indigenous Innovation* (Jan. 26, 2006), available in Chinese at http://www.gov.cn/jrzg/2006-02/09/content_183929.htm.

¹¹³ *National Mid and Long-term Science and Technology Development Plan (2006-2020)* (State Council Feb. 9, 2006), available in Chinese at http://www.gov.cn/jrzg/2006-02/09/content_183787.htm.

- Public safety; and
- National defense.

The implementing *Innovation Decision* calls for establishing a series of supporting policies and measures to encourage indigenous innovation,¹¹⁴ including:

- Government grants;
- Preferential lending;
- Intellectual right protection;
- Construction of public forums;
- Tax incentives;
- Government procurement;
- Incentives to attract and retain talent; and
- International cooperation.

China has launched a number of successful and influential science and technology programs, such as the *State Key Science and Technology Special Program*, the *863 Plan*, the *State Science and Technology Supporting Plan*, the *973 Plan*, the *Torch Plan*, and others, which have supported numerous R&D and innovation activities by enterprises and research institutes. During the 11th Five Year Period (2006-2010), for example, the central government provided almost RMB 50 billion to more than 3,000 projects under the *State Key Science and Technology Special Program*, and encouraged local governments and other entities to provide an additional RMB 100 billion.¹¹⁵

As reported by the U.S. Chamber of Commerce:

¹¹⁴ *Decision on Implementing the Science and Technology Plan*, *supra* note 112.

¹¹⁵ *2010 China Science and Technology Development Report 68*, available in Chinese at <http://www.most.gov.cn/kjz/kjxz/2010/201203/P020120321557327180478.pdf>.

Indigenous innovation is a massive and complicated plan to turn the Chinese economy into a technology powerhouse by 2020 and a global leader by 2050. The landmark document that launched the campaign carries the bureaucratic title “The National Medium- and Long-Term Plan for the Development of Science and Technology (2006-2020)” (now known in the West as the MLP). Bland as the title may be, the MLP describes itself as the “grand blueprint of science and technology development” to bring about the “great renaissance of the Chinese nation.” ...

The financial meltdown in the West, and China’s deep-pocketed ability to maintain high growth, have convinced China’s leaders that the time has come to step forward and make global rules and employ China’s market to build global companies. Some Chinese scholars contend that Party leaders last year even edited Deng Xiaoping’s authoritative 1989 foreign affairs directive, updating the wording to instruct Party officials to be less humble and more assertive. The holy grail of science and technology is considered the key to China finally breaking free from its embattled past. Premier Wen expressed this “never again” view in November 2009 when key indigenous innovation regulations were unveiled: “Only by using the power of science and technology will China, this massive ark, be able to produce the immeasurable ability to allow nobody to stop our advance forward.”¹¹⁶

5. Summary

China’s industrial policies have been evolving over time. Instead of the absolute diktats of the early communist period, the policies of today are sophisticated plans for improving the Chinese economy and propelling the nation toward increased prosperity.¹¹⁷ Part of the change is reflected in nomenclature. Starting with the *National Economic and Social Development 11th Five Year Plan*, which covered 2006-2010, the GOC replaced the term *jihua* (“plan”) with another term -- *guihua*. Although both terms can be translated as plan, the new one conveys something less comprehensive, more akin to an outline. This change reflects the stated desire of

¹¹⁶ James McGregor, *China’s Drive for ‘Indigenous Innovation: A Web of Industrial Policies* (U.S. Chamber of Commerce July 28, 2010).

¹¹⁷ See section II.E, below, for summaries of the industrial policies under the framework of the current Five Year Plan.

the GOC to place more emphasis on general public policy, as opposed to rigid targets for industrial development.¹¹⁸

C. The National 12th Five Year Plan

China's current overarching industrial policy is the *12th Five Year Plan*, which covers 2011-2015. This new plan reflects both China's increased confidence resulting from decades of economic growth and the economic uncertainty in many parts of the world. Given the ongoing weakness of many potential export markets, the plan forecasts relatively modest annual economic growth at approximately 7%. It also calls for increased domestic consumption, developing the service sector, and environmental protection and remediation.

The *12th Five Year Plan* continues prior calls for Chinese industry to move up the value chain by producing higher-end products that will provide higher wage jobs for Chinese workers. It is much more focused on economic restructuring, environmental and energy efficiencies, and scientific development than the strictly industrial targets of prior plans. The clear emphasis is on economic development, as opposed to growth for the sake of growth.

The *12th Five Year Plan* integrates both short-term control policies and long-term development priorities. It coordinates policies on government spending, currency, investment, industry, and land use. Overall goals include continued modernization, improving industrial structure, smarter use of raw materials, improving the environment, and creating jobs. The *12th Five Year Plan* promotes structural adjustment in certain industries:

- **Equipment manufacturers** should increase R&D related to production techniques, materials, components, and systems integration; strengthen R&D and the use of critical technological equipment in industrial applications; and promote the development of “smart” equipment.

¹¹⁸ “National Development and Reform Commission: ‘Five Year Jihua’ Is Renamed into ‘Five Year Guihua’ for the First Time,” *Beijing Youth Daily* (Mar. 27, 2004), available in Chinese at <http://gb.cri.cn/41/2004/03/27/146@110754.htm>.

- The **shipbuilding industry** should adapt to new international standards, establish modern shipbuilding capabilities, and develop high-tech and high-value-added ships and related equipment.
- The **automobile industry** should strengthen R&D related to complete vehicles, promote the “indigenization” of technologies for key parts, and improve technologies related to energy conservation, environmental protection, and safety.
- The **metallurgy and building materials industries** should focus on domestic demand, limit capacity expansion, improve product structure, and make progress in R&D, resource conservation, and environmental protection.
- The **petrochemical industry** should diversify raw materials, prioritize the development of high-end petrochemical products, accelerate the adjustment of raw materials for fertilizers, and improve quality for refined oil.
- The “**light and textile industry**” should strengthen environmental protection, improve quality and safety, and improve techniques, technologies, and equipment.
- The **packaging industry** should accelerate the development of advanced packaging equipment, new packaging materials, and high-end packaging products.
- The **electronic information industry** should improve R&D, enhance the capability to develop basic electronics independently, and extend into the higher end of the industry chain.
- The **construction industry** should pursue “green” buildings and construction, focus on optimizing industry structure and services with advanced building techniques, materials, and information technology.

To promote its goals, the GOC continues in the *12th Five Year Plan* to indicate to industry and government which goals must be met. According to the analysis conducted by the U.S.-

China Economic and Security Commission,

In contrast to earlier five year plans, the 11th FYP began to distinguish between —restricted (*yueshuxing*) and —expected (*yuqixing*) targets among its key indicators. This distinction continued in the 12th FYP. Restricted targets are hard targets that local officials must meet in order to progress in their careers. Expected targets are soft targets to be carried out primarily through market forces with government support.¹¹⁹

¹¹⁹ U.S.-China Economic & Security Review Commission, *Backgrounder: China’s 12th Five Year Plan*, at 1-2 (June 24, 2011).

The report continues that China met 7 of 8 “restricted” goals and 11 out of 14 expected goals in the 11th Five Year Period (2006-2010). The report then cites the opinions of a number of observers regarding the dubious nature of some of the creative accounting necessary to claim that the goals had been met, including “belated discoveries of additional GDP” and “forced electricity brown-outs in several cities” necessary to meet targets regarding energy conservation.¹²⁰

In addition to the industrial goals discussed above, the 12th *Five Year Plan* calls for a more rational geographic distribution of industries. For example, energy and mineral resource projects should be focused in the west and center of the country. Coastal and border regions should be utilized for projects requiring foreign-origin input materials. Steel companies should move out of urban areas, and oil processing operations should be located in places that encourage the development of upstream and downstream industries together. Implicit in such directives is that government will pay for, or otherwise help arrange financing for, companies undertaking such projects. State-owned Shougang Steel, for example, recently moved its entire facility from Beijing to a new coastal location.¹²¹ The relocation was an integral part of China’s 2005 *Iron & Steel Policy*. It was intended both to reduce the environmental impact of steel pollution on the population and to help the industry become more competitive by decreasing the cost of transporting imported iron ore. The move was extremely costly, but paid for in large part by the GOC.

China’s State Council has agreed to give a total tax rebate [of both income tax and VAT] of 3.8 billion yuan (US\$503.32 million) to Shougang Steel Group while a subsidy to offset the company’s bond interest payments will also be offered to support its relocation.

¹²⁰ *Id.* at 6.

¹²¹ See generally “Steel giant Shougang to move out of Beijing,” *China Daily* (Feb. 8, 2005).

The government will return all the value-added and income taxes the steel company will be charged between 2006 and 2009. Another 1.9 billion yuan will be offered to offset the company's interest to its bond buyers, Li Ping, the director of the Beijing Municipal Bureau of Industrial Development, told Xinhua news agency today.

Shougang said earlier that it hoped the government would return eight billion yuan in taxes between 2004 and 2010. The steel maker also applied for a treasury-bond discount loan of four billion yuan to sponsor its relocation and provide subsidies to workers.¹²²

The *12th Five Year Plan* also calls for strengthening technological renovation.

Governmental entities are required to develop policies to support such efforts, as well as to encourage mergers and acquisitions among companies, especially those in the automobile, steel, cement, machinery manufacturing, electrolytic aluminum, rare earth, electronic information, and medicine industries, to help reduce redundant capacity and promote national champions.

Shougang Steel, for example, was forced to merge with the weaker Changzhi Iron & Steel under the government's plan.

Shanxi's steel industry restructuring plan was initiated in May 2009. Under that plan, the Shanxi steel industry will form five steel production bases. Shanxi Province Economic and Information Committee adjusted the plan this year, and aims to form two steel giants lead by Taiyuan Steel and Shougang.¹²³

The *12th Five Year Plan* emphasizes the development of the 7 strategic emerging industries (“SEIs”) that together should account for 8% of Chinese gross domestic product at the end of the period:

- Biology (biomedicines, biomedical engineering products, and biological agriculture);
- New energy (nuclear, solar, wind, and biological energy technologies);

¹²² “Shougang Will Receive Tax Rebate to Fund Relocation,” *China.biz* (Dec. 21, 2010).

¹²³ “Foot Dragging Slows Shanxi Steel Construction,” *China.org* (May 7, 2010).

- New materials (advanced structures, high performance fibers, and composites);
- New energy automobiles (hybrids, electric vehicles, fuel cells);
- High-end equipment manufacturing (aerospace and railway equipment);
- New generation information technology (next-generation networks, cloud computing, integrated circuits, high-end software and servers, and information services); and
- Energy saving and environmental protection (equipment, products, and services).

The plan calls on developing these industries by cultivating “backbone” enterprises and geographical bases. It also calls for direct financial support through grants, tax incentives, and preferential lending. Other targets include promoting scientific and technological development through similar financial measures. In addition, the government will support Chinese firms investing abroad.

D. Provincial 12th Five Year Plans And Policies

Under the Chinese economic system, most sub-national jurisdictions are required to prepare economic and social development plans consistent with the national-level five year plan. These jurisdictions are encouraged to adapt the national plans to local conditions. Provinces and cities are not allowed to adopt policies inconsistent with the national plans, but some degree of flexibility is allowed.¹²⁴ For example, although the target economic growth in the national plan is 7%, the provincial and municipal plans reviewed in connection with this report were all higher.

It is also not uncommon for the national authorities to allow -- or even encourage -- jurisdictions to adopt different strategies in order to test rival theories of development. As indicated previously, local government officials are often promoted based on the economic

¹²⁴ See section II.A.1, above, for discussion on purposeful vagueness of national policies to allow local adaptation.

performance of their jurisdictions, which encourages officials to do anything possible to promote economic growth.¹²⁵ Commonly cited examples of such competition on a grand scale were the competing “Chongqing” and “Guangdong” models. The Chongqing model focused on increased State control together with the promotion of a more traditional Maoist ideology, which was promoted by officials including the now disgraced governor Bo Xilai. The Guangdong model was more liberal both in terms of economics and social policy.

1. Fujian

Fujian, which is opposite Taiwan on China’s southern coast, has a population of 37.2 million.¹²⁶ In 2011, Fujian’s GDP reached RMB 1.7 trillion (US\$ 269.4 billion), accounting for approximately 3.7% of China’s GDP, ranking 12th in the country.¹²⁷ Fujian’s GDP per capita rose to RMB 46,802 (US\$ 7,246) in 2011, ranking 10th in China.¹²⁸

Fujian sets an ambitious target of 10% average annual GDP growth for the period 2011 through 2015 in the *Fujian Economic and Social Development 12th Five Year Plan*. Highlights of the plan include:

- Building advanced manufacturing industries along the coast, with an emphasis on industrial clusters;
- “[B]oosting ... the electronic information industry, the equipment manufacturing, and the petrochemical industry ... [and] promoting industrial chains to extend to high value-added and technology-intensive areas”;

¹²⁵ Hongbin Li & Li-an Zhou, “Political Turnover and Economic Performance: The Incentive Role of Personnel Control in China,” *Journal of Public Economics* (June 2004).

¹²⁶ “Top 10 Richest Provincial Regions in China 2011,” *China.org.cn* (Mar. 16, 2012), available at http://www.china.org.cn/top10/2012-03/16/content_24912437.htm.

¹²⁷ *Id.*; see also “China’s Economic Growth Decelerates to 9.2 pct in 2011,” *Xinhuanet.com* (Jan. 17, 2012), available at http://news.xinhuanet.com/english/china/2012-01/17/c_131364430.htm.

¹²⁸ See “Top 10 Richest Provincial Regions in China 2011,” *supra* note 126.

- Promoting “traditionally advantaged industries” (light, textiles, metallurgy, building materials, construction, and forestry) through technology and equipment upgrades and industry consolidation; and
- Increasing revenue in the 7 SEIs by 20% annually.

Revenue growth in the 7 SEIs will be financed in part by a special development fund.

The plan also calls for incentives for indigenous innovation, government encouragement for financial institutions to provide loans, and for the government to help arrange financing through public offerings or bonds, among others. According to the plan, local authorities should also

actively implement the state industrial policy, formulate industrial guidance suitable to the realization of our province, strengthen the cooperation of credit loan policies, land policies, environmental protection policies, science and technology policies, and other policies with the industrial policy, and promote the optimization and upgrading of industrial structure.

2. Guangdong

Guangdong borders Hong Kong in the south and is one of China’s largest economic engines. Guangdong has a population of 105 million.¹²⁹ In 2011, Guangdong’s GDP reached RMB 5.3 trillion (US\$ 815.9 billion), accounting for approximately 11.2% of China’s total GDP, remaining first in the country for the third consecutive year.¹³⁰ Guangdong’s GDP per capita rose to RMB 50,141 (US\$ 7,763) in 2011, ranking 8th in China.¹³¹

The *Guangdong Economic and Social Development 12th Five Year Plan* (“*Guangdong Plan*”) establishes a target annual GDP growth rate of 8%. It calls for the government to coordinate manufacturing and innovation, manufacturing and services, and information technology with industrialization.

¹²⁹ *Id.*

¹³⁰ *Id.*; see also “China’s Economic Growth Decelerates to 9.2 pct in 2011,” *supra* note 127.

¹³¹ “Top 10 Richest Provincial Regions in China 2011,” *supra* note 126.

According to the *Guangdong Plan*, the provincial government intends to support 500 industrial projects culminating in an industrial structure where SEIs are the “leading force.” By 2015, revenue from these SEIs should exceed RMB 2 trillion, with the value added to products accounting for 10% of the GDP. Other goals include:

- Directing capital toward advanced manufacturing industries for products such as equipment, automobiles, steel, petrochemicals, and ships;
- Improving technology, building high value-added industrial chains, and research and design centers; and
- Developing “industrial bases” for the manufacture of household appliances, textiles and apparel, food, building materials, paper, and non-ferrous metals, leading to five “internationally influential” industrial clusters and 3 leading enterprises with annual sales exceeding RMB 100 billion.

The *Guangdong Plan* calls on the government to “study and formulate corresponding fiscal, financial, taxation, pricing, investment, industrial, land, population, environmental protection, and other relevant policies for the implementation of the Plan, reasonably allocate public resources, and effectively guide social resources.” The plan also indicates that the government should seek to promote its objectives through procurement policies.

3. Jiangsu

Jiangsu Province is on China’s east coast near Shanghai, with a population of 78.9 million.¹³² Jiangsu’s GDP reached RMB 4.9 trillion (US\$ 752.5 billion) in 2011, accounting for approximately 10.3% of China’s GDP, maintaining second place in the nation for the third consecutive year.¹³³ Jiangsu’s GDP per capita rose to RMB 61,534 (US\$ 9,527) in 2011, ranking 4th in China.¹³⁴

¹³² *Id.*

¹³³ *Id.*; see also “China’s Economic Growth Decelerates to 9.2 pct in 2011,” *supra* note 127.

¹³⁴ “Top 10 Richest Provincial Regions in China 2011,” *supra* note 126.

The *Jiangsu Economic and Social Development 12th Five Year Plan* sets a target of 10% average annual GDP growth from 2011 to 2015. The plan calls for coordinating the development of high and new technology industries with the development of SEIs, promoting high and new technology industries, and for industries to move to the higher end of the value chain and increase R&D activities.

In a move to adapt the national plan to local conditions, this provincial plan refers to 6 (instead of 7) SEIs: new energy, new materials, biological technology/pharmaceuticals, energy-saving and environmental protection, software and service outsourcing industry, and new generation information technology industry. The plan sets as a goal doubling the sales revenue of these SEIs by 2012, and having them exceed RMB 5 trillion by 2015.

Other targets in the plan include:

- Developing equipment manufacturing, optoelectronics and improvements in information technology, petrochemicals, textiles, metallurgy, light industry, and building materials; and
- Fostering groups of companies with annual sales of RMB 1 billion, 10 billion, and 100 million.

To achieve these goals, the plan calls on the government to encourage innovation through preferential industrial policies, tax incentives, government procurement, and directing foreign funds.¹³⁵ The provincial government will provide capital from the innovation fund within its budget, directly invest in new companies, and provide loan security for innovative start-up companies.

¹³⁵ The plan does not specify in detail the manner in which officials should implement the goals of the plan, which is typical of Chinese industrial policies. See section II.A.1, above, for an explanation of this governmental practice.

4. Shandong

Shandong is a coastal province north of Beijing, with a population of 96.4 million.¹³⁶ Shandong's GDP reached RMB 4.5 trillion (US\$ 702.9 billion) in 2011, accounting for approximately 9.6% of China's GDP, remaining third in the country for the third consecutive year.¹³⁷ Shandong's GDP per capita rose to RMB 47,139 (US\$ 7,298) in 2011, ranking 9th in China.¹³⁸

The main provincial industrial policy, the *Shandong Economic and Social Development 12th Five Year Plan* ("Shandong Plan"), sets a target of 9% average annual GDP growth and 15% average annual growth in fixed assets investment.¹³⁹ It emphasizes indigenous innovation, industrial consolidation, and reducing both energy consumption and emissions.

Additional aspects of the *Shandong Plan* call for upgrading traditional industries, as well as developing SEIs (*i.e.*, new energy and environmental protection, new materials, new information technology, new pharmaceutical and biology, and marine development and high-end equipment industries). These SEIs should undertake approximately 40 key projects with a total investment of RMB 200 billion during the relevant period, and the value added to products by these SEIs should account for 10% of the GDP by 2015.

The *Shandong Plan* also calls for:

- Developing and expanding industrial clusters, which should number 200 by the end of the period and result in sales revenue of RMB 10 billion;

¹³⁶ "Top 10 Richest Provincial Regions in China 2011," *supra* note 126.

¹³⁷ *Id.*; see also "China's Economic Growth Decelerates to 9.2 pct in 2011," *supra* note 127.

¹³⁸ "Top 10 Richest Provincial Regions in China 2011," *supra* note 126.

¹³⁹ *Shandong Economic and Social Development 12th Five Year Plan* (Shandong Provincial Gov't Mar. 2011), available in Chinese at http://www.jiangsu.gov.cn/shouye/jsyw/201103/t20110322_576322.html.

- Upgrading industrial parks and zones, including creating 80 high-quality product production bases and 100 “export bases” for “advantaged” products;
- Boosting mergers and acquisitions to improve competitiveness; and
- Fostering thirty enterprise groups with operating revenue over RMB 50 billion.

To ensure implementation, the Shandong Plan requires the creation of an “investment macro control system guided by the industrial policies [and] based on the Plan.” Governmental authorities should also use policies on land, environmental protection, finance, government funds, and taxation to help achieve the plan’s goals. The government also indicates that it will help guide funds from “society” to encouraged projects and will provide support through procurement.

5. Zhejiang

Zhejiang is a coastal province just south of Shanghai, with a population of 54.6 million.¹⁴⁰ Zhejiang’s GDP reached RMB 3.2 trillion (US\$ 495.5 billion) in 2011, accounting for approximately 6.8% of China’s GDP, ranking 4th in the country.¹⁴¹ Zhejiang’s GDP per capita rose to RMB 58,576 (US\$ 9,069) in 2011, ranking 5th in China.¹⁴²

The *Zhejiang Province Economic and Social Development 12th Five Year Plan* is different in some respects from other plans discussed in this memorandum because of a strong focus on agriculture. It is generally consistent with the others in the sense that it sets a target of 8% average GDP growth and calls for the government to help upgrade industrial structures, cultivate SEIs, and promote the integration of information technology with industry.

¹⁴⁰ “Top 10 Richest Provincial Regions in China 2011,” *supra* note 126.

¹⁴¹ *Id.*; see also “China’s Economic Growth Decelerates to 9.2 pct in 2011,” *supra* note 127.

¹⁴² “Top 10 Richest Provincial Regions in China 2011,” *supra* note 126.

In Zhejiang, SEIs are defined to include biology, information technology, new energy, new materials, energy-saving and environmental production, equipment manufacturing, new-energy automobiles, and nuclear power. The provincial government will support efforts in these areas through policies related to human capital, technology, capital, land, and other resources. The Zhejiang plan also provides for further development of automobile production, equipment, pharmaceuticals, petrochemicals, shipbuilding, steel, textiles, light industry, building materials, and non-ferrous metals. It further provides that the government will help develop “key” enterprises in these areas.

The Zhejiang plan sets out a number of goals similar to those in other provinces:

- Building in excess of 50 national-level and 500 provincial-level innovative enterprises;
- Building 300 national-level high and new technology enterprises with output values over RMB 1 billion;
- Building 200 key science and technology enterprise incubators; and
- Building 10,000 small and medium-sized enterprises (“SMEs”) in science and technology.

The plan further calls for building more industrial clusters, promoting indigenous innovation, and creating export bases. The government will support these endeavors through the government allocation of resources, tax incentives, procurement, and the coordination of science and technology with finance.

E. Industry-Specific Policies

1. Cotton

a) National plans

A stable supply of reasonably priced cotton is important to the Chinese government, and it has enacted a number of policies to achieve this goal. Certain industrial policies outline the

types of support and at what stage in the production chain the support will be provided. For example, the 2006 *Opinions on Accelerating Adjustments and Promoting Upgrades in the Textile Industry* called for supporting research related to cotton production.¹⁴³ Other plans call on government entities to support to cotton mills¹⁴⁴ and spinning projects.¹⁴⁵

The support measures undertaken to implement these policies include policy loans and cash payments to cotton farmers.¹⁴⁶ In 2007, for example, the GOC allocated RMB 500 million to subsidize cotton farmers in 8 provinces.¹⁴⁷ In 2009, the GOC more than doubled the amount of available funds and expanded the geographic scope of the program.¹⁴⁸ Other support includes payments to producers in certain remote provinces to help offset high shipping costs from inland locations.¹⁴⁹

Additional support for cotton producers includes the possibility of exemptions from income tax for agricultural endeavors. Article 27 of China's new *Enterprise Income Tax* law

¹⁴³ *Opinions on Accelerating Adjustments and Promoting Upgrades in the Textile Industry* Fa Gai Yun Xin (2006) No. 762 (Ministry of Industry & Information Technology).

¹⁴⁴ *Guidelines for Restructuring and Revitalizing the Textile Industry* (Apr. 24, 2009).

¹⁴⁵ *Henan Province Textile Industry Development 11th Five Year Plan* (Sept. 22, 2006).

¹⁴⁶ See "Credit Loan Measures of Agricultural Development Bank for Supporting the Development of Cotton Textile and apparel Industry," *Website of Quanzhou Textile & Garments Commerce Chamber* (Aug. 5, 2010).

¹⁴⁷ "RMB 500 Million Cotton High-Quality Seeds Subsidy Benefits Cotton Farmers in 8 Provinces," *Agri Goods Herald* (Mar. 23, 2007).

¹⁴⁸ "State Formulates Policy to Stabilize Cotton Production," *Honor Textile Net* (Apr. 10, 2009); *Circular of Printing and Distributing 2011 Implementation Guidance on Central Government Agricultural Products High-Quality Seeds Subsidy Program*, Nong Ban Cai (2011) No. 24 (Mar. 7, 2011).

¹⁴⁹ *Circular of the Ministry of Finance on Printing and Distributing Interim Rules on Administration of Transportation Expense Subsidy for Cotton Shipped from Xinjiang* (June 13, 2008).

provides that income generated from agriculture, forestry, husbandry, or fisheries “may” be exempted from tax.¹⁵⁰

A second prong of the GOC’s cotton policy involves more direct actions to influence the price of cotton. Until the late 1990s, the GOC controlled cotton prices directly.¹⁵¹ The current situation, as explained in China’s most recent WTO Trade Policy Review, is as follows:

Under the Foreign Trade Law (2004), the State may subject certain goods to state trading, including to ensure stable domestic supply, stabilize prices, safeguard food safety, and protect the environment and exhaustible resources In 2009, products imported by state-trading enterprises (STEs) [included] . . . cotton.

...

Most state trading products are also subject to tariff-rate quotas. Data provided by the authorities show that the shares of tariff-rate quotas allocated to STEs remain high and relatively unchanged. In 2008, STEs accounted for . . . 33% of total quotas allocated for . . . cotton¹⁵²

Imports entering under the quota level of a Tariff Rate Quota (“TRQ”) are usually subject to a lower tariff rate, and imports in excess of the quota are subject to a much higher tariff rate. In addition to these measures to control imports, the GOC also manipulates cotton prices by discouraging exports. According to the most recent Trade Policy Review,

Eight agricultural products are currently subject to export prohibitions Only state-trading enterprises are allowed to export . . . cotton China continues to impose global (i.e. irrespective of destination) and destination-specific export quotas. In 2009, global export quotas applied to cotton¹⁵³

¹⁵⁰ See *Enterprise Income Tax Law*, *supra* note 107, at Article 27.

¹⁵¹ See The World Bank, “The Cotton Problem” (Sept. 2004).

¹⁵² World Trade Organization, *Trade Policy Review*, WT/TPR/S/230, at Section III, paras. 36 and 38 (Apr. 26, 2010).

¹⁵³ *Id.* at Section IV, para. 21.

Prohibiting or limiting the exportation of cotton from China increases domestic supply, thus decreasing domestic prices.

The GOC also maintains a strategic cotton reserve, which it uses to help manipulate prices. As the WTO explained, “[t]he state-owned China State Cotton Reserve Corporation continues to intervene in the market to stabilize prices and supply”¹⁵⁴ The government interventions aimed at manipulating cotton prices occur frequently and are varied in approach. In 2010, for example, the GOC increased the cotton import quota, released some of the State cotton reserve to the market, and otherwise strengthened the regulation of the cotton market.¹⁵⁵ These measures effectively curbed domestic prices.¹⁵⁶ As a result of these efforts, the cotton price in China is often lower than that in the rest of the world. For example, in February 2011, the Chinese domestic cotton price was reported to be as much as RMB 8,000/metric ton lower than the price for imported cotton.¹⁵⁷

The world market price for cotton changed from 2011 to 2012, and the GOC revised its stockpiling strategy. As reported by the *Wall Street Journal*:

Importing cotton from the global market makes sense for Chinese mills because domestic prices are high. The China National Cotton Reserves Corp. is paying 21,826 yuan, or \$3,464, a ton for fiber from domestic producers to build up its reserves, but it only buys about 40% of the output. The rest is sold on the domestic market, where prices closed at \$3,698 a ton Friday on the Zhengzhou Commodity Exchange, about double what cotton is trading for on the [U.S. futures] exchange.

¹⁵⁴ *Id.* at para. 31. See also China National Cotton Reserves Corporation, *About CNCRC*, available at <http://www.cncrc.com.cn/p412.aspx>.

¹⁵⁵ “2010 Cotton Market Analysis and 2011 Cotton Market Prospect,” *Anhui Agriculture Net* (Feb. 9, 2011).

¹⁵⁶ *Id.*

¹⁵⁷ “World Cotton Price Continuously Exceeds Record Level, Domestic Market Responds With Caution,” *Tianjin Cotton Organization Website* (Feb. 22, 2011).

The inflated prices guarantee a floor for farmers and are meant to encourage planting of the fiber Chinese mills in need of cotton and trying to avoid high domestic prices have two options, both of which depend on the actions of the Chinese government. The mills are limited to a total import quota of 985,466 tons, which is separate from what the government imports for reserves, but domestic cotton traders say they expect the government to issue additional quotas when the cotton planting is complete at the end of April. The other option is that the government releases some of its reserves, as it did last year when prices in the U.S. hit a record of \$2.27 a pound.¹⁵⁸

b) Provincial plans

Anhui. This landlocked province in eastern China has a population of approximately 66.8 million.¹⁵⁹ In 2007, the province had a GDP of RMB 736.4 billion (US\$ 96.6 billion), and a per capita GDP of RMB 12,045 (US\$ 1,581).¹⁶⁰ In Anhui province, the *Cotton Industry “12th Five Year” Development Plan for 2011-2015* calls for significant increases in annual yield and quality.¹⁶¹ The government also calls for industry consolidation, which would result in approximately 60 leading cotton enterprises in the province. To realize these goals, the plan calls for governmental financial support and preferential treatment, as well as financing from banks.

Shandong. Issued in March 2011, the *Shandong Province Cotton Industry Revitalization Plan* calls for the cultivation of 3 to 5 high-yield, high-quality cotton varieties at 50 standardized cotton production demonstration projects. The goal is to reach 1 billion metric tons of cotton

¹⁵⁸ “China Likely to Pressure Cotton Prices,” *The Wall Street Journal* (Apr. 29, 2012).

¹⁵⁹ “Anhui Province,” available at <http://info.hktcdc.com/mktprof/china/anhui.htm>.

¹⁶⁰ *Id.*

¹⁶¹ “Cotton Industry ‘12th Five Year’ Development Plan (Years 2011-2015),” *China Number One Textile Net* (Dec. 16, 2011), available in Chinese at <http://cptc.webtex.cn/info/2011-12-16@495905.htm>.

production by 2015. To attain these goals, the provincial government will provide subsidies to cotton producers as well as cotton processing enterprises to upgrade their equipment.

2. Textiles and Apparel

The table below shows the output of China's textile and apparel industry during the five year period of 2007 through 2011 and its share of China's industrial sector.¹⁶²

Table 6: Output of Textile, Apparel, Footwear, and Headwear (2007-2011)

Year	Total Output of Textile, Apparel, Footwear, and Headwear		Total National Industrial Output		Share (%)
	(RMB millions)	(US\$ millions)	(RMB millions)	(US\$ millions)	
2007 ¹⁶³	2,633,369	345,586	40,517,713	5,317,285	6.5
2008 ¹⁶⁴	3,082,888	449,401	50,744,825	7,397,205	6.1
2009 ¹⁶⁵	3,341,618	489,256	54,831,142	8,027,986	6.1
2010 ¹⁶⁶	4,083,916	602,347	69,859,054	10,303,695	5.9
2011 ¹⁶⁷	4,619,111	715,033	84,426,879	13,069,176	5.5

(US\$ 1 was worth RMB 7.6 on June 30, 2007; RMB 6.8 on June 30, 2008; RMB 6.8 on June 30, 2009; RMB 6.8 on June 30, 2010; and RMB 6.5 on June 30, 2011.)

a) National plans

The national *Textile Industry '12th Five Year' Development Plan* was published in January 2012.¹⁶⁸ It identifies five general areas for industrial development in textiles with

¹⁶² Chinese national statistics only cover enterprises above a certain size. Before 2011, surveys included enterprises with sales revenue exceeding RMB 5 million. Since 2011, surveys have included enterprises with sales revenue exceeding RMB 20 million. Thus, national statistical reports may understate the contribution of SMEs.

¹⁶³ *Main Indicators of Industrial Enterprises above Designated Size by Industrial Sector (2007)*, available at <http://www.stats.gov.cn/tjsj/ndsj/2008/html/N1302e.htm> (Nat'l Bureau of Statistics website).

¹⁶⁴ *Main Indicators of Industrial Enterprises above Designated Size by Industrial Sector (2008)*, available at <http://www.stats.gov.cn/tjsj/ndsj/2009/html/N1302e.htm>.

¹⁶⁵ *Main Indicators of Industrial Enterprises above Designated Size by Industrial Sector (2009)*, available at <http://www.stats.gov.cn/tjsj/ndsj/2010/html/N1402e.htm>.

¹⁶⁶ *Main Indicators of Industrial Enterprises above Designated Size by Industrial Sector (2010)*, available at <http://www.stats.gov.cn/tjsj/ndsj/2011/html/N1402e.htm>.

¹⁶⁷ *Main Indicators of Industrial Enterprises above Designated Size by Industrial Sector (2011)*, available at <http://www.stats.gov.cn/tjsj/ndsj/2012/html/N1402e.htm>.

respect to industrial growth, structural improvements, innovation, establishment of brand-name recognition, and energy conservation and pollution reduction. Other important aspects of the plan include:

- **Growth Targets.** The plan calls for annual increases of 8% in added value by large-scale enterprises. Total exports by the textile industry should reach US\$ 300 billion, increasing annually by 7.5%. The total volume of value-added fibers should reach 51.5 million metric tons, increasing annually by 4.5%. The entire industry should continue to employ around 20 million people.
- **Structural Improvements.** The plan calls for development of new products; increased textile manufacturing in central and western China reaching 28% of total output; increased concentration of synthetic fibers industries; and twenty enterprises with annual output in excess of RMB 10 million.
- **Innovation.** The plan calls for annual increases in employment at major firms by 10%; expenditures on R&D at amounts in excess of 1% of income from companies' core business; and focus on R&D in textile equipment and techniques in cotton textiles, synthetic fibers, and apparel.
- **Brand Names.** The plan calls for the development of 5 to 10 brand names with international recognition, and 100 trademarks that become famous domestically. There should be 50 enterprises with well-known brand names with annual sales revenues in excess of RMB 10 million, and 25% of this amount should be from exports.
- **Energy Conservation and Pollution Control.** The plan envisions reduction in energy consumption by 20% across the industry as compared to 2010; reduction in carbon dioxide emissions by 20% as compared to 2010; reduction in the intensity of water usage per unit of value added by 30% as compared with 2010; and reduction of emissions of major pollutants of 10% as compared with 2010. The plan also calls for greater recycling of textile fibers on the order of 8 million metric tons.

The plan also sets forth major areas of focus for the textile industry. These include R&D, industry standards, the formation of industrial clusters, general improvements, human capital, international focus, and industrial reorganization. Additional targets include:

¹⁶⁸ *Textile Industry "12th Five Year" Development Plan* (Ministry of Industry & Information Technology Jan. 19, 2012), available in Chinese at <http://www.miit.gov.cn/n11293472/n11293832/n11294072/n11302450/14443316.html>.

- **New Fiber Material.** By the end of 2015, the use of synthetic fibers should increase so that synthetic fibers will contribute to 76% of total value added during textile manufacturing.
- **Textile Equipment.** The goal is for 30% or more of major textile machinery products to reach advanced international standards by 2015, of which 50% or more of yarn machinery and synthetic fiber machinery should attain such international standards.
- **High-Performance Industrial Textiles.** Attain 12.9 million metric tons of value added to fibers by 2015, or 25% of the entire textile industry.
- **Traditional Textiles.** Improve the efficiency and lower the energy consumption of processes that use natural fibers like cotton, wool, hemp, and silk.
- **Apparel.** Improve “information technology assisted integrated manufacturing” and large-scale customized manufacturing processes. The plan also calls for apparel production techniques that emphasize automation and use of information technology, with computer assisted design in 50% of the industry, and computer assisted manufacturing in 25% of the industry.

To help accomplish these goals, the plan sets forth fiscal and tax policies to assist with implementation by creating favorable market conditions for the textile industry, developing industry standards, and guaranteeing the availability of raw materials. Such fiscal policies include special funds for national and provincial technological innovation plans; high technology industrial development funds; and enterprise innovation construction project funds to promote the construction of textile innovation services centers and the use of new equipment.

The plan provides that the GOC should adopt policies to help companies obtain financing through bonds and short term debt instruments, among others. Additional policies should include the rebate of VAT upon export and support for companies expanding overseas in order to secure raw materials. The import quota for cotton should be modified as appropriate,¹⁶⁹

¹⁶⁹ Since 2004, the GOC has maintained the import quota for cotton at 894,000 metric tons per year, and the import tariff rate for cotton imports within the quota is 1%. See “Special Report on Sliding Duties for Imported Cotton,” *CottonChina.org* (Dec. 22, 2011), available in Chinese at <http://www.cottonchina.org/zhuanti/gj/hzs2011/>. Depending on market conditions, the GOC may increase the annual quota for cotton imports. See *id.* For example, the GOC increased the quota by 2,668,000 metric tons in 2010 and by 2,700,000 metric tons in 2011. See *id.* Duties imposed on such extra-quota cotton imports are

infrastructure should be built to service production bases for cotton, wool and hemp, and chemical facilities should be built to provide raw materials for synthetic fibers.

The *Industrial Textile “12th Five Year” Development Plan*, promulgated by the Ministry of Industry and Information Technology, discusses the types of GOC support producers of these products are eligible to receive.¹⁷⁰ The GOC defines industrial textiles as those having “specific functions” that are used in sectors including “healthcare, environmental protection, construction, transportation, aerospace and aviation, new energy, agriculture, forestry, and fisheries.”¹⁷¹ Among other things, the plan calls for support for producers of industrial textiles through lending and land policies. The plan also calls for funding efforts to improve technology and for the GOC to support the industry through procurement.

The *Chemical Fiber Industry “12th Five Year” Development Plan* was published by the Ministry of Industry and Information Technology. Its focus is on increasing the production of chemical synthetic fibers, especially high-performance fibers.¹⁷² One of the means the GOC uses to promote such production is making adjustments to tariff and VAT export rebate rates to help control supply and demand.¹⁷³ In this way, the GOC can help to ensure that its synthetic

levied according to a sliding scale. *See id.* The current formula for this sliding duty scale for cotton imports took effect on January 1, 2012: (1) when the dutiable value is 14 RMB/kg or more, the rate is 0.570 RMB/kg; and (2) when the dutiable value is below RMB 14/kg, the rate is calculated as $R_i = 8.23 / P_i + 3.325\% * P_i - 1$, where R_i is the sliding scale duty rate, P_i is the dutiable value in RMB/kg, and R_i shall not exceed 40%). *See id.*

¹⁷⁰ *Industrial Textile “12th Five Year” Development Plan* (Ministry of Industry & Information Technology, Nat’l Development & Reform Commission, State Bureau of Quality Supervision and Inspection Dec. 27, 2011), available in Chinese at http://www.gov.cn/zwgk/2012-01/19/content_2049098.htm.

¹⁷¹ *Id.*

¹⁷² *Chemical Fiber Industry “12th Five Year” Development Plan* (Ministry of Industry & Information Technology Jan. 19, 2012), available in Chinese at http://www.gov.cn/gzdt/2012-01/19/content_2049031.htm.

¹⁷³ For 2012, the GOC stipulated a 16% VAT rebate for exporters of synthetic staple fibers and synthetic fabrics, whereas importers and other domestic sellers of synthetic staples fibers and fabrics must pay

fiber industry remains profitable. The plan also calls for increased R&D and offers support for companies forming “industrial innovation alliances” among upstream and downstream enterprises, academic institutions, and engineering firms, among others.

b) Provincial plans

The textiles and apparel plans adopted by provinces and cities across China during the 12th Five Year Period (2011-2015) carefully track the national goals outlined above, making modifications to adapt the national plan to local conditions. While production and revenue targets established in these plans may differ from province to province, the general themes of improved products, better technology, more domestic brands, and industry consolidation in order to create bigger, more competitive companies are consistent.

Fujian. The *Fujian Province Textile Industry ‘12th Five Year’ Development Plan*” was published in July 2012.¹⁷⁴ Goals for the province include attaining RMB 500 billion in annual sales, with RMB 170 billion in industrial value added and RMB 100 billion in foreign exchange. The plan also contains production targets for synthetic fiber, yarn, cloth, dyed fabrics, and non-stitched fabrics, as well as apparel items.

The plan calls for developing 8 large textile enterprises with revenues of RMB 10 billion each and another 30 enterprises with half as much revenue each. The plan also calls for additional textile technological centers, “1 or 2” brands that have international recognition, investing in overseas production facilities,¹⁷⁵ and securing raw materials overseas. The

a 17% VAT. See *Customs Import and Export Tariff[s] of the People’s Republic of China* 365-88 (Econ. Daily Press 2012) (Chapter 55 of Harmonized Tariff Schedule).

¹⁷⁴ *Fujian Province Textile Industry ‘12th Five Year’ Development Plan*” (Fujian Province Economic & Trade Commission July 4, 2012), available in Chinese at <http://www.fjetc.gov.cn/zfxxgk/newsInfo.aspx?newsID=36826&typeID=22>.

¹⁷⁵ Both the central and local governments in China have promulgated a series of credit support measures to encourage Chinese enterprises to invest abroad. For example, the NDRC and the Export-Import

provincial government is directed to support large-scale facilities capable of manufacturing RMB 1 billion worth of merchandise and other designated activities through tax policies, loans from banks, and assisting with public offerings of stock. The government will also “strengthen” export tax rebates.

Guangdong. The *Guangdong Province Textile Industry “12th Five Year” Development Guidance*, issued in October 2011, calls for sales growth of 8% annually to reach RMB 620 billion by 2015. The plan also calls for more technological centers and internationally competitive brands. It provides targets related to denim textiles, apparel, woolen textiles, synthetic fibers, cotton textiles, knitted textiles, textiles machinery, silk textiles, industrial textiles, household textiles, and dyeing industry.

To attain these goals, the plan calls on the government in Guangdong to use tax policies, such as tax preferences for technological development, investment, fixed capital depreciation, and energy conservation and pollution reduction. The plan also calls for financial support to enable companies to list on stock exchanges and to resolve financial difficulties through lending and provision of loan guarantees.

Bank of China (a policy bank) jointly established a credit mechanism for investing overseas in 2003, providing loans to key overseas investment projects that the State has designated for support at preferential interest rates. *See Notice of the National Development and Reform Commission and the Export-Import Bank of China on Providing Credit Loan Support for Key Overseas Investment Projects Encouraged by the State*, Fa Gai Wai Zi (2004) No. 2345 (Oct. 27, 2004). The China Development Bank has also issued a joint notice with the NDRC pledging to arrange a certain amount of loans to support key overseas investment projects that the State has designated for support. *See Notice on Certain Issues Regarding Further Strengthening Financing Support for Key Overseas Investment Projects*, Fa Gai Wai Zi (2005) No. 1838 (Sept. 25, 2005). Following the lead of the central government, local governments have also issued financial supporting measures to encourage investments overseas. For example, Shandong Province calls for policy banks located within the province to provide credit support, and calls on financial institutions in its jurisdiction to loosen lending criteria and lower loan interest rates to promote overseas investments by local enterprises. *See Opinions of the People’s Government of Shandong Province on Accelerating the Implementation of “Going Abroad” Strategy*, Lu Zheng Fa (2005) No. 149 (Oct. 28, 2005).

Hebei. This province with a population of 71.9 million surrounds the cities of Beijing and Tianjin.¹⁷⁶ In 2007, the province had a per capita GDP of RMB 239 billion (US\$ 31.4 billion).¹⁷⁷ The *Hebei Province Textile Industry Development “12th Five Year” Plan* was promulgated in January 2012.¹⁷⁸ It identifies companies in the cotton textiles, wool textiles, and dyeing industries that will receive official support, and it lists administrative measures to realize these goals. The plan contains extensive goals with regard to revenue, tax receipts, and foreign exchange. It calls for 10 provincial research centers and the development of brand names.

The Hebei plan provides that companies adhering to government goals will be rewarded through various means including through tax breaks, innovation grants, land use rights, and other financial support. Toward this end, the authorities are also directed to provide assistance in obtaining funds from capital markets, foreign investors, and loan guarantees.

Hubei. This landlocked province, located in central China, has a population of 57.2 million.¹⁷⁹ In 2010, the province boasted a GDP of RMB 1.3 trillion (US\$ 189.2 billion) and a per capita GDP of RMB 22,677 (US\$ 3,345), ranking 12th in the country.¹⁸⁰ Consistent with the policies of many other provinces, the *Hubei Province Textile Industry “12th Five Year” Development Plan* calls on its textile industry to develop more famous brands, improve

¹⁷⁶ “Hebei Province,” *ChinaToday.com*, available at http://www.china.org.cn/top10/2012-03/16/content_24912437.htm.

¹⁷⁷ *Id.*

¹⁷⁸ *Hebei Province Textile Industry Development “12th Five Year” Plan* (Hebei Provincial Gov’t Jan. 2012), available in Chinese at <http://www.tsgy.gov.cn/News.aspx?id=2513>.

¹⁷⁹ “Economic Profile of China’s Hubei Province,” available at <http://www.tradecommissioner.gc.ca/eng/document.jsp?did=112025&cid=512&oid=32> (Canadian Trade Commissioner website).

¹⁸⁰ *See id.*

technology, create industrial bases, and develop cleaner production techniques.¹⁸¹ The Hubei plan contains a number of less common elements, including calls for:

- Consolidating the industry and creating a number of enterprises with annual revenues in excess of RMB 300 billion which, together with smaller companies, should attain annual export sales of US\$ 4 billion;
- Developing cleaner production processes for synthetic fibers that will allow annual production to reach 500,000 metric tons, and constructing new chemical facilities (such as ethylene glycol and caprolactam plants) for artificial fiber and wood resins;
- Improving cotton textile production through means including the discouragement of small-scale facilities and securing raw material inputs through the expansion of cotton and ramie cultivation; and
- Developing new techniques for dyeing and finishing textiles.

To help realize these goals, the provincial government will provide special funds for technological development and SMEs, as well as bonds and the provision of short-term investment capital.

Hunan. This landlocked province, to the south of Hubei Province, has a population of 65.9 million.¹⁸² In 2011, the GDP for the province was RMB 2 trillion (US\$ 303.9 billion).¹⁸³ The *Hunan Province Textile Trade “12th Five Year” Development Plan* issued in November 2011 envisions the establishment of twelve textile manufacturing bases in the province, the creation of indigenous famous marks in textile products, and the development of 3 textile

¹⁸¹ *Hubei Province Textile Industry “12th Five Year” Development Plan*, available in Chinese at <http://wenku.baidu.com/view/7ea2e262783e0912a2162a94.html> (unofficial copy).

¹⁸² “Population,” available at <http://enghunan.gov.cn/AboutHNprovince/PopulationEthnicGroups/Population/index.htm> (Hunan Provincial Government website).

¹⁸³ “Statistics of Hunan Province’s Economic and Social Development in 2011,” available at <http://www.enghunan.gov.cn/AboutHNprovince/Economy/OverviewStatistics/> (Hunan Provincial Government website).

enterprise groups that attain over RMB 3 billion per year in sales revenue.¹⁸⁴ Specifically, the Hunan plan calls for

- Developing SEIs in the textile sector;
- Developing new types of fiber and doubling annual production of polyethylene fiber production to 3,000 tons;
- Concentrating the development of textile manufacturing SMEs in 7 locations by means of selectively granting company registrations, land use permits, and preferential treatment for companies that are located in industrial parks; and
- Providing government grants to key textile enterprises for the purpose of technological upgrades.

The provincial government will also encourage banks to “cooperate” with relevant government agencies to provide seed capital for textile enterprises. The plan also calls for grants for technological upgrade and innovation, increased provision of financial assistance, export credit insurance, and loan guarantees for textile companies, and compensation for textile enterprises that relocate to industrial zones in order to increase the efficient use of resources.

Jiangsu. The *Jiangsu Textile Industry ‘12th Five Year’ Development Plan*,” released in mid-2012, provides for more famous brands, higher quality products, reduced pollution and energy use, and increased industry consolidation.¹⁸⁵ The plan calls for 10 major enterprise groups in synthetic fibers, cotton textiles, wool textiles, silk making, dyeing, apparel, household textiles, industrial textiles, and textile machinery and equipment. It calls for 15 enterprises that have annual sales revenues in excess of RMB 10 billion each. It also provides that the province should increase annual textile sales to RMB 1.6 trillion, and that enterprises should be 85% self-

¹⁸⁴ *Hunan Province Textile Trade “12th Five Year” Development Plan* (Hunan Provincial Gov’t Nov. 2011), available in Chinese at <http://www.ii.gov.cn/news/cszz/ghc/WBGH/2011/11/111118928129089.html>.

¹⁸⁵ See Interpretation of “*Jiangsu Textile Industry ‘12th Five Year’ Development Plan*” (Hunan Provincial Gov’t June 2012), available in Chinese at <http://www.njec.gov.cn/gkzcjd/3275.jhtml>.

sufficient in the use of fabrics for manufacturing for export. To accomplish these goals, the provincial authorities should grant tax preferences and improvements in investments in human capital and company management.

Shandong. The *Shandong Province Textile Industry “12th Five Year” Development Plan* was enacted in mid-2011.¹⁸⁶ Its goals include helping the provincial industry to reach an annual target of RMB 1.4 trillion in sales revenue with RMB 330 billion in added value and exports of US\$ 24 billion. To help achieve this goal, the provincial government intends to create 3 enterprises with sales exceeding RMB 50 billion, and 10 with sales exceeding RMB 10 billion. The plan designates 18 locations for developing cotton and yarn textile enterprises.

The plan calls on companies to invest 3% of their earnings in technology and research to help reach these goals. It also calls on the government to provide support for certain activities such as industrial reorganization, the retirement of obsolete facilities, investments in human capital, and the development of overseas raw material bases and sales network. This support will come from bonds and short-term loans.

Shaanxi. This province located in the far interior region of northern China had a population of 37.4 million, a GDP of RMB 1.3 trillion (US\$ 193.7 billion), and a per capita GDP of RMB 33,464 (US\$ 5,180) in 2011.¹⁸⁷ The *Shaanxi Textile Industry 12th Five Year Plan* was released in early 2012.¹⁸⁸ It calls for cumulative investments in fixed assets of RMB 21 billion in value by 2015 and emphasizes development of ten major industrial groups in apparel, knitted

¹⁸⁶ “Shandong Province Textile Industry ‘12th Five Year’ Development Plan” (Shandong Provincial Gov’t June 2011), *available in Chinese at* <http://www.sdtext.gov.cn/servlet/newsinfo?newsid=21562&menuid=77>.

¹⁸⁷ See “Shaanxi: Market Profile,” *available at* <http://china-trade-research.hktdc.com/business-news/article/Fast-Facts/SHAANXI-PROVINCE/ff/en/1/1X000000/1X06BVMt.htm>.

¹⁸⁸ “Publication of ‘Shaanxi Textile Industry 12th Five Year Plan,’” *available in Chinese at* http://www.sdpc.gov.cn/xxfw/qywb/t20120213_461399.htm (NDRC website).

textiles, wool textiles, colored textiles, dyes, and silks. The primary measures to implement the plan include:

- Tax breaks;
- Loans for SMEs;
- Support for listing on stock exchanges;
- Investment in research institutions and facilitation of technological exchanges; and
- Developing industrial groups and parks through zoning, land policies, regulatory approvals, coordination of financing, and solicitation of private investments in projects.

3. Biochemicals

The table below shows the output of China’s pharmaceutical industry during the five year period of 2007 through 2011 and its share of China’s industrial sector.¹⁸⁹

Table 7: Output of Medicines

Year	Total Output of Medicines		Total National Industrial Output		Share (%)
	(RMB millions)	(US\$ millions)	(RMB millions)	(US\$ millions)	
2007	636,190	83,490	40,517,713	5,317,285	1.6
2008	787,498	114,796	50,744,825	7,397,205	1.6
2009	944,330	138,262	54,831,142	8,027,986	1.7
2010	1,174,131	173,176	69,859,054	10,303,695	1.7
2011	1,494,199	231,300	84,426,879	13,069,176	1.8

a) National plans

Several GOC policies influence the direction of the biochemical industry in China. The *Biology Industry Development 11th Five Year Plan*, issued in April 2007, aimed to boost the development of China’s biology industry, which includes biochemicals. The targets established in the plan included developing bio-tech products with indigenous intellectual property rights,

¹⁸⁹ Chinese national statistics only cover enterprises above a certain size. Before 2011, surveys included enterprises with sales revenue exceeding RMB 5 million. Since 2011, surveys have included enterprises with sales revenue exceeding RMB 20 million. Thus, national statistical reports may understate the contribution of SMEs.

fostering 10 companies with sales revenue over RMB 1 billion each, and forming 8 biology industrial bases with output value over RMB 50 billion each. The plan also called for increasing exports and the value added to products. The plan called on the government to increase support to companies making biochemicals and other biology-related products through fiscal policies, tax incentives, and by directing banks to make loans and helping guide funds from capital markets.¹⁹⁰

The *Bio-based Materials Industry Scientific and Technological Development 12th Five Year Special Plan*, issued by the Ministry of Science and Technology in May 2012, designates the manufacturing of bio-based chemicals as the “major” task, and calls on the government to “implement state investment subsidies and tax reduction and exemption policies” to facilitate such manufacturing.

The *National Strategic Emerging Industries 12th Five Year Development Plan* was issued by the State Council in July 2012.¹⁹¹ It designates the biology industry as one of the 7 SEIs. This plan calls for further development of the biopharmaceutical, the biomedical engineering, the bio-agriculture, and the bio-manufacturing industries. The plan identifies a number of policy supports for SEIs, including establishing an SEI special development fund, improving and implementing various tax incentives, and encouraging financing institutions to increase lending.

The *Bio-tech 12th Five Year Development Plan*, which was issued by the Ministry of Science and Technology in November 2011, calls for developing China’s biopharmaceutical,

¹⁹⁰ Like other plans, this one does not specify the applicable taxes and incentives under the policy. Such ambiguity is common for Chinese industrial policies, because provincial and local officials who implement the policies have broad discretion to interpret their application. See section II.A.1, above, for discussion of this governmental practice.

¹⁹¹ “12th Five Year” Plan for Development of National Strategic Emerging Industries (State Council July 9, 2012), available in Chinese at http://www.gov.cn/zwggk/2012-07/20/content_2187770.htm.

bio-agriculture, bio-manufacturing, bio-energy, and bio-environmental protection industries. The plan calls for priority treatment for certain biopharmaceutical technologies and products such as vaccines and antibiotics. To ensure implementation, the plan requires the establishment of “a multi-channel input mechanism and stronger fiscal, taxation, financial and other policy support.”

The *Biological Industry Development Plan*, issued by the State Council in December 2012, reiterates the status of the biological products industry as a SEI, aims to build a biological industry that becomes internationally competitive by 2015, and which becomes a national pillar industry by 2020. The plan calls for raising the biopharmaceutical industry’s competitiveness and sets an annual growth rate of 20% of the output value for that industry. The plan calls on government officials to improve tax incentives for biological enterprises, promote the establishment of venture funds focusing on the biological industry through the use of funds from the State venture fund, and give priority to new biomedicines in government procurement. The plan also directs financial institutions to provide financing support to the biological industry and offers guarantees.

Another relevant plan, the *New Materials Industry 12th Five Year Development Plan*, was issued in January 2012. It encourages R&D related to biodegradable materials, bio-based polymer new materials, bio-based green chemicals, and biomedical materials. This plan directs the government to coordinate among policies related to science, finance, tax, investment, trade, land, resources, and the environment. In addition to providing fiscal and tax support, the plan calls on banks to increase lending and for the government to assist companies obtain financing from capital markets.

An additional policy relevant to biochemicals is the *Pharmaceutical Industry 12th Five Year Development Plan*, issued by the Ministry of Industry and Information Technology in January 2012. It calls for upgrading technologies and directs the government to use science and technology funds to support innovation and to provide more funds to SEIs. It also calls for tax incentives, favorable export credit and export credit insurance policies, and using government pricing policies to encourage indigenous innovation and improvements in product quality.

b) Provincial plans

Fujian. The *Fujian Province Pharmaceutical Industry 12th Five Year Development Plan*, issued by Fujian Provincial Economic and Trade Commission in July 2012, designates bio-tech medicines as one of 6 provincial development priorities. The plan directs the government to increase fiscal support through a special fund for SEIs. Like the national plans, Fujian also directs banks to provide more lending to this industry and indicates that it will provide further support through tax incentives, government pricing policies, and by encouraging financing from market sources.

Guangdong. The *Guangdong Province Biopharmaceutical Industry Development 12th Five Year Plan (Draft)* was issued jointly by the Development and Reform Commission of Guangdong Province and the Guangdong Provincial Department of Science and Technology in November 2010. It aims to “build a modern biopharmaceutical industry with a full variety of product types, advanced technologies, and relatively complete industrial chains by 2015.” It sets an ambitious target of 15% average annual growth in output value.¹⁹² The plan calls on the government to increase support through its land and resource policies, tax incentives, and

¹⁹² Output Value = Sales Revenue + Ending Balance of Semi-Finished Products – Beginning Balance of Semi-Finished Products.

preferential procurement policies. The plan also calls for increased grants from the government and for the government to “guide” funds from banks and other institutions.

Jiangsu. This province has several industrial policies relevant to biochemicals. The *Jiangsu Province Biological Technology and New Pharmaceutical Industry Development Plan (2009-2012)* was issued by Jiangsu Provincial Science and Technology Department in April 2010. It calls on the bio-tech and pharmaceutical industries to reach RMB 500 billion in sales revenue by 2012, and to become a leading industry by 2015. The government will support these efforts through procurement and by encouraging investment.¹⁹³

In addition, the *Jiangsu Province Pharmaceutical Industry 12th Five Year Plan* was issued by the Economic and Information Technology Commission of Jiangsu Province in April 2012. It designates the biopharmaceutical industry as one of 6 development priorities and calls on the government to strengthen policies related to fiscal support, lending, land, and environmental protection to help the industry meet its goals. In particular, the government will provide grants, tax incentives, encourage bank lending, and establish preferential procurement policies.

Shandong. The Economic and Information Technology Commission issued the *Shandong Province 12th Five Year Biopharmaceutical Industry Development Plan* in June 2011. It sets a target annual growth rate of 27% based on output value for the industry, and designates bio-tech medicines as one of the 7 development priorities. The plan offers tax incentives, government grants, and preferential government procurement policies to support the development of the biopharmaceutical industry.¹⁹⁴

¹⁹³ See section II.A.4, above, for some general examples of government procurement.

¹⁹⁴ See *id.*

Zhejiang. This province has enacted several industrial policies relevant to biochemicals. The *Zhejiang Province Biology Industry Development Plan (2010-2015)*, issued by the People’s Government of Zhejiang Province in October 2010, sets a target of 20% average annual growth in sales. It also designates a number of products as provincial priorities, including bulk medicines, biomedical products, bio-based materials. In addition, the *Zhejiang Province Pharmaceutical Industry 12th Five Year Development Plan*, issued by the local Economic and Information Technology Commission in December 2011, designates biological medicines as one of the five development priorities. Together, these plans direct the government to support relevant producers through tax incentives, preferential land price, government procurement, and increased cooperation with banks.

4. Capital Goods

The table below shows the output of China’s machinery industry during the five year period of 2007 through 2011 and its share of China’s industrial sector.¹⁹⁵

Table 8: Output of Machinery and Equipment

Year	Total Output of General Purpose Machinery, Special Purpose Machinery, Transport Equipment, and Electrical Machinery and Equipment (RMB millions) (US\$ millions)		Total National Industrial Output (RMB millions) (US\$ millions)		Share (%)
	2007	8,017,397	1,052,152	40,517,713	
2008	10,303,298	1,501,938	50,744,825	7,397,205	20.3
2009	11,963,423	1,751,599	54,831,142	8,027,986	21.8
2010	15,549,161	2,293,387	69,859,054	10,303,695	22.3
2011	18,181,940	2,814,542	84,426,879	13,069,176	21.5

(US\$ 1 was worth RMB 7.6 on June 30, 2007; RMB 6.8 on June 30, 2008; RMB 6.8 on June 30, 2009; RMB 6.8 on June 30, 2010; and RMB 6.5 on June 30, 2011.)

¹⁹⁵ Chinese national statistics only cover enterprises above a certain size. Before 2011, surveys included enterprises with sales revenue exceeding RMB 5 million. Since 2011, surveys have included enterprises with sales revenue exceeding RMB 20 million. Thus, national statistical reports may understate the contribution of SMEs.

a) National plans

The GOC has determined that the nation should produce as much equipment as possible in order to replace imported items. The *Equipment Manufacturing Industry Adjustment and Revitalization Plan*, issued by the State Council in May 2009, was in effect during 2009-2011. The Plan designated equipment manufacturing as a “strategic industry” and “a symbol of the nation’s comprehensive strength.” With a view toward improving export performance, the plan called on the government to improve tax incentives, strengthen government procurement policies,¹⁹⁶ provide equipment purchase subsidies, encourage enterprises to engage in restructuring, and support equipment exports by raising export rebates and increasing export credit.

The *High-End Equipment Manufacturing Industry 12th Five Year Development Plan* was jointly issued in March 2012 by several powerful ministries -- the Ministry of Industry and Information Technology, the NDRC, and the Ministry of Finance. It covers “high-tech and high value-added equipment needed for the transformation and upgrading of traditional industries and the development of SEIs.” It identifies as developmental priorities aerospace equipment, satellites, railway transportation equipment, marine engineering equipment, and smart manufacturing equipment. The plan targets RMB 6 trillion in sales revenue by 2015, and directs the government to increase fiscal and tax support, to encourage financial institutions to offer financing, and to encourage leasing companies to provide relevant services. The *National Strategic Emerging Industries 12th Five Year Development Plan*, issued by the State Council in July 2012, identifies the same types of support for industry.¹⁹⁷

¹⁹⁶ See section II.A.4, above, for some general examples of government procurement.

¹⁹⁷ See “12th Five Year” Plan for Development of National Strategic Emerging Industries, *supra* note 191.

b) Provincial plans

Many provinces have adopted plans similar to those issued by the national authorities, as discussed below.

Jiangsu. The *Jiangsu Province Equipment Manufacturing Industry 12th Five Year Development Plan* was issued by the Economic and Information Technology Commission of Jiangsu Province in May 2012.¹⁹⁸ It sets 15% as the average annual growth target for sales and calls for certain improvements in the industrial chain. It calls for government support in the form of grants, tax incentives, and helping the industry obtain financing. The provincial government will help local governments establish “industrial development funds” in order to provide assistance to enterprises.

Tianjin. This city is a provincial-level municipality situated on the coast near Beijing that has a population of 10.4 million.¹⁹⁹ The city’s GDP was RMB 505 billion (US\$ 66.3 billion), with a per capita GDP of RMB 46,122 (US\$ 6,053) in 2007.²⁰⁰ The *Tianjin Municipality Equipment Manufacturing Industry Development “12th Five Year” Plan* was issued by the Economic and Information Technology Commission of Tianjin Municipality in December 2011. It sets an annual average growth target of 16% for industrial output and another goal of reaching RMB 1.5 trillion of industrial output value by the end of the period. Development priorities under the plan include:

- Transportation equipment;

¹⁹⁸ *Jiangsu Province Equipment Manufacturing Industry 12th Five Year Development Plan*, available in Chinese at <http://www.njdpc.gov.cn/jcck/ztl/201205/P020120531557659554373.doc>.

¹⁹⁹ “Population and Nationalities,” available at http://www.tj.gov.cn/english/About_tianjin/Tianjin_Basic_Facts/Population_and_Nationalities/ (Tianjin Municipal Government website).

²⁰⁰ See “Tianjin Municipality,” available at <http://info.hktdc.com/mktprof/china/mptij.htm>.

- Ship manufacturing and repair;
- Large engineering machinery and equipment;
- Wind power equipment;
- Nuclear power equipment;
- Petroleum and petrochemical equipment;
- Port machinery;
- Hydropower equipment;
- Electricity transmission equipment; and
- Agricultural machinery.

The municipal government is establishing a “leadership” team to help ensure that its goals are met. The team will be comprised of government officials and representatives from companies, industrial parks, and research institutions.

Zhejiang. In this province, the authorities promulgated the *Zhejiang Province High-end Equipment Manufacturing Industry Development Plan (2010-2015)* in November 2010. It identifies 14 research and manufacturing priorities. These include the manufacture of equipment related to electrical generation and transmission, petroleum and petrochemical production, “coal chemicals,” metallurgy, mining, railways, construction, textiles, agriculture, electronics, biological manufacturing, pharmaceutical manufacturing, and digitally controlled machinery, printing, and casting and forging. The plan calls on the government to “study and formulate relevant policies and measures to promote the healthy and orderly development of the industry” and “strengthen the guarantee of resources including land, capital, water, electricity, and gas.”

5. Electric Appliances

a) National plans

The *Light Industry Adjustment and Revitalization Plan*, issued by the State Council in May 2009, covered 2009-2011. The plan called for upgrading and renovating production lines, producing more high-end and high-efficiency electric appliances, and expanding the market for electric appliances by increasing consumption in rural areas. Toward this end, the plan called on the government to adjust policies relating to the environment, land, credit, and business registrations. The government indicated that it will raise export rebate rates for certain products, encourage financial institutions to lend to producers, and provide more grants for SMEs in the industry.

The *Guidelines of the Ministry of Industry and Information Technology on Accelerating the Transformation and Upgrade of China's Home Electric Appliances Industry*, issued in December 2009, calls on the industry to

speed up technological renovation, strengthen indigenous innovation abilities, optimize product structure, boost the construction of indigenous brands, raise international competitiveness, and promote the transformation and upgrade of the industry.

The guidelines further provide that, by 2015, average R&D expenses should equal 3% of sales revenue; there should be more than 20 State-designated enterprise technology centers; indigenous brands should command 30% of the world market; and there should be 5 international enterprise groups. The guidelines direct the government to implement subsidy programs for the home electric appliances industry. They also call for government support for technological improvements and innovation projects, foreign trade-related activities, and mandate that financial institutions provide necessary credit.

The *Light Industry 12th Five Year Development Plan*, issued by the Ministry of Industry and Information Technology in January 2012, calls for upgrading the electric appliance industry and cultivating internationally competitive brands. It also encourages the consolidation of the industry. The plan calls on the government to use existing funds to support traditional industries and develop emerging industries. In particular, the plan calls on the government to “establish a financial service forum for enterprises’ globalized R&D, production system, and brand promotion,” and to support the development of SMEs with grants, preferential financial policies, and tax incentives.

In December 2007, the GOC launched the *Home Electric Appliances into the Countryside Program* in Shandong, Henan, and Sichuan Provinces. The program provided payments to rural residents purchasing certain color televisions, refrigerators, and mobile phones from qualified producers.²⁰¹ In December 2008, the GOC approved 9 more provinces for the program and added washing machines to the list of eligible items.²⁰² In February 2009, this program was extended to the whole country.²⁰³ Several months later, additional products were made eligible -- computers, air conditioners, water heaters, microwaves, and induction

²⁰¹ *Implementation Rules for the Experiment Work of the Home Electric Appliances into the Countryside Program*, Shang Zong Fa (2007) No. 472 (Dec. 23, 2007).

²⁰² *Notice of the Ministry of Finance and the Ministry of Commerce on the Work Plan for Promoting the Home Electric Appliances into the Countryside Program* (Oct. 13, 2008).

²⁰³ *Notice of the Ministry of Finance, the Ministry of Commerce, and the Ministry of Industry and Information Technology on the Work of Promoting the Home Electric Appliances into the Countryside Program to the Whole Country*, Cai Jian (2008) No. 862 (Nov. 28, 2008).

cookers.²⁰⁴ This program provides payments to rural residents purchasing eligible goods with 13% of the sales price, up to the following limits:²⁰⁵

- Color television - RMB 3,500
- Refrigerator - RMB 2,500
- Mobile phone - RMB 1,000
- Washing machine - RMB 2,000
- Wall-mounted air conditioner - RMB 2,500
- Floor-mounted air conditioner - RMB 4,000
- Water heater with storage - RMB 1,500
- Gas/electric water heater - RMB 2,500
- Solar water heater - RMB 4,000
- Computer - RMB 3,500
- Microwave oven - RMB 1,000
- Induction cooker - RMB 600

This program has been very popular. It was intended to last for 4 years,²⁰⁶ but it is likely to continue indefinitely.²⁰⁷

In June 2009, the GOC launched the very similar *Home Electric Appliances Old-for-New Trade-up Scheme* to increase domestic demand for electric appliances in 9 provinces and

²⁰⁴ *Notice of the Ministry of Finance, the Ministry of Commerce, and the Ministry of Industry and Information Technology on Strengthening the Implementation of the Home Electric Appliances into the Countryside Policy*, Cai Jian (2009) No. 48 (Feb. 26, 2009).

²⁰⁵ *Detailed Procedures of the Home Electric Appliances into the Countryside Program*, Cai Jian (2009) No. 155 (Apr. 16, 2009).

²⁰⁶ *Id.*

²⁰⁷ See “Home Electric Appliances into the Countryside Program Is About to Expire, Ministry of Commerce Will Formulate Substitute Policy,” *Modern Life Daily* (Sept. 24, 2012), available in Chinese at http://www.cccp.gov.cn/gysh/dqsb/gysxl/201209/t20120925_2361032.shtml.

municipalities -- Beijing, Tianjin, Shanghai, Jiangsu, Zhejiang, Shandong, Guangdong, Fuzhou, and Changsha.²⁰⁸ The program was funded with RMB 2 billion in 2009,²⁰⁹ but ceased operating at the end of 2011.²¹⁰

b) Provincial plans

Guangdong. The *Guangdong Province Home Electric Appliances Industry 12th Five Year Development Guidelines*, issued by the Economic and Information Technology Commission of Guangdong Province in August 2011, sets a target of 8% average annual growth for the home electric appliances industry from 2010 to 2015. The plan calls for raising product quality, cultivating brands and high-end products, promoting industrial designs, developing environmentally-friendly products, speeding up technological development, urging enterprises to become more competitive, and strengthening the exploration of foreign markets. The plan also attaches importance to the technological development of air conditioners, refrigerators, washing machines, and key parts. The plan calls on the government to continue providing support in the form of subsidies for rural consumers, funds for technological renovation, support for export sales, and encouraging banks to increase loans and loosen guarantee requirements.

Shandong. The *Shandong Province Home Electric Appliances Industry 12th Five Year Development Plan*, issued by the Economic and Information Technology Commission of Shandong Province in September 2011, sets targets of 10% average annual sales growth, 14%

²⁰⁸ *Implementation Rules for the Home Electric Appliances Old-for-New Trade-up*, Cai Jian (2009) No. 298 (June 28, 2009).

²⁰⁹ *Implementation Plan for Promoting and Expanding Domestic Demand and Encouraging Automobile and Home Electric Appliances "Old-for-new Trade-up"*, Guo Ban Fa (2009) No. 44 (June 1, 2009).

²¹⁰ *Emergency Notice of the Ministry of Commerce, the Ministry of Finance, and the Ministry of Environmental Protection on Diligent Implementation of the Home Electric Appliances Old-for-New Trade-up* (Dec. 22, 2011).

profit growth, and 10% growth in revenue from exports. The plan gives priority to refrigerators, televisions, air conditioners, central air conditioning products, washing machines, water heaters, small home electric appliances, and home healthcare electric products. It also calls for speeding up the development of complete home electric appliance sets and actively developing new home electric appliances with market potential. The plan calls on the government to optimize investment structure, utilize government funds and tax incentives, increase support for SMEs and industrial clusters, and encourage enterprises to expand into domestic and foreign markets.

6. Footwear

a) National plans

The *Light Industry Adjustment and Revitalization Plan*, issued by the State Council in May 2009, covered a number of industries including footwear during 2009-2011.²¹¹ It encouraged eastern coastal areas where the footwear industry is concentrated to “focus on R&D, design, and trade using their advantages, and transfer the production to areas with the advantage in resources.” It also called for government support through policies on the environment, land, credit, and business registrations. Additional support was to be provided through increased VAT export rebates and bank financing.²¹² The plan listed some examples of financing measures for implementation by officials: assistance in extending due dates for loan repayments, simplification of loan applications, special funds to make loan payments on behalf of SMEs in emergencies, assistance in bond issuances by enterprises (pooled bond issuances for SMEs),

²¹¹ *Light Industry Adjustment and Revitalization Plan* (May 2009), available in Chinese at http://www.gov.cn/zwgk/2009-05/18/content_1317783.htm.

²¹² During 2012, the GOC increased VAT export rebates for footwear to 15%. See *Customs Import and Export Tariff[s] of the People’s Republic of China*, supra note 173, at 493-96. By contrast, importers of footwear must pay a VAT rate of 17% in addition to customs duties. *Id.* See section II.A.4, above, for discussion on preferential loan interest rates granted by State policy banks in Zhejiang Province as an example.

short-term loans, insurance for SMEs in light manufactures, assistance with export credit, and assistance with export credit insurance.

The subsequent *Light Industry 12th Five Year Development Plan*, issued by the Ministry of Industry and Information Technology in January 2012, gives priority to medium and high-end footwear products. The plan calls on the government to use existing funds to support improvements in traditional industries, the development of emerging industries, and R&D related to the industrialization of key technologies. It also calls for the establishment of a “financial service forum” to support research, production, and brand promotion through preferential financing and tax policies.

b) Provincial plans:

Anhui. The province issued its *12th Five Year Industrial Development Plan* in August 2011. The plan calls for “developing the supporting leather industry, forming a complete industrial chain, building the ‘Central Footwear City,’ and endeavoring to form a RMB 100 billion footwear manufacturing industrial base.” The plan calls on the government to strengthen investments in industry and to promote cooperation between banks and enterprises.

Chongqing. Chongqing is a provincial-level municipality in western China, with a population of 29.2 million that absorbed a part of neighboring Sichuan Province in 1997.²¹³ In 2011, Chongqing had a GDP of RMB 1 trillion (US\$ 155 billion), and a per capita GDP of RMB 34,500 (US\$ 5,340).²¹⁴ One of its counties, Bishan, enacted the *Bishan County Footwear Manufacturing Industry 12th Five Year Development Plan* in September 2011. This plan aims to “build Bishan into the most important footwear manufacturing base in western China.” The plan

²¹³ See “Chongqing: Market Profile,” available at <http://china-trade-research.hktdc.com/business-news/article/Fast-Facts/CHONGQING-MUNICIPALITY/ff/en/1/1X000000/1X06BPV2.htm>.

²¹⁴ *Id.*

calls on the government to provide support and leverage central government preferences for the development of western China, and to “further modify and improve all the preferential policies supporting the development of the footwear industry and the construction of the China western footwear city, and provide more support for footwear enterprises in aspects of capital, land, and financing.”

Fujian. The *Fujian Province Textile Industry 12th Five Year Development Plan* was issued in July 2012. It calls on the Putian Textile, Footwear, and Apparel Industry Cluster to increase output value to between RMB 50 billion and 100 billion. The plan also calls on the government to use grants, tax incentives, and export rebates to support international trade. It further mandates increased support from financial institutions with regard to loans and guarantees.

Zhejiang. The county of Wenling is on China’s eastern coast in Zhejiang Province. Its *Wenling City Foreign Economic and Trade Development 12th Five Year Plan*, issued in August 2011, calls on the government to “strengthen policy support and guidance” in order to cultivate leading enterprises in traditional industries including footwear. It further calls on government to utilize grants, tax incentives, and bank loans to support the development of traditional manufacturing industries including footwear. In particular, the government should set up a “provincial-level export base” and arrange subsidized loans for equipment improvements, and research for export products, including footwear.

7. Green Technologies

a) National plans

Green technologies are particularly important to the Chinese leadership because of the country’s environmental degradation over the last several decades. According to China’s main

industrial planning agency, State investments in energy-saving and green technology projects will reach RMB 3.6 trillion during 2011-2015.²¹⁵

The *Renewable Energy Development “12th Five Year” Plan*, issued in August 2012,²¹⁶ calls for the development of electric generation facilities using renewable energy sources. It pays particular attention to energy generated from water, wind, the sun, biomass, geothermal sources, and ocean tides. By 2015, hydropower generation capacity should reach 290 million kilowatts, wind power generation from ocean farms should reach 5 million kilowatts, solar generation should reach 21 million kilowatts, biomass generation should be equivalent to 50 million metric tons of coal, geothermal generation should be equivalent to 15 million metric tons of coal, and tidal generation should reach 50,000 kilowatts. Among other measures, the plan calls for governmental subsidies and financial support to realize these goals, including special funds for development of renewable energy plants and loans for the construction of small-scale renewable energy projects.

The *Solar Energy Generation Science & Technology Development “12th Five Year” Specific Plan*, issued in March 2012,²¹⁷ covers R&D for solar technology. Its goals include:

- Reducing the cost of polysilicon production by 30% and increasing the proportion of domestically produced material to 50% of consumption;
- Substituting domestically produced silicon crystalline solar panels for imports and including domestically generated intellectual property rights in the production process;

²¹⁵ “NDRC: RMB 3.6 trillion investments in energy conservation and environmental protection during ‘12th Five Year’ period,” *Shanghai Securities News* (Sept. 12, 2012).

²¹⁶ *Renewable Energy Development “12th Five Year” Plan* (Nat’l Development & Reform Commission July 2012), available in Chinese at <http://www.sxdrc.gov.cn/xxlm/xny/zhd/201212/W020121213355346043230.pdf>.

²¹⁷ *Solar Energy Generation Science & Technology Development “12th Five Year” Specific Plan* (Ministry of Science & Technology Mar. 27, 2012), available in Chinese at http://www.nea.gov.cn/2012-04/26/c_131551940.htm.

- Increasing the efficiency of production of monocrystalline silicon panels to over 20%, and 10% for production of domestically designed amorphous silicon thin film panels;
- Developing production lines for 100 megawatt solar generators and related technology and equipment; and
- Constructing a solar power research and demonstration station. To realize these goals, the plan calls for the construction of national laboratories, construction centers, and industrial stations.

The plan calls on authorities to encourage enterprises to utilize tax exemptions, government financing, and government procurement. The plan also calls for the development of national high technology industrial development zones and national high technology industrialized bases to promote the construction of innovative industrial clusters.

The February 2012 *Solar Photovoltaic Industry “12th Five Year” Development Plan* outlines developmental goals for the photovoltaic industry.²¹⁸ The plan calls for fostering the development of key enterprises in this sector— leading polysilicon enterprises with production capacities of 50,000 metric tons each, and major solar panel enterprises capable of attaining outputs equivalent to 5 gigawatts each. The plan anticipates the development of 1 photovoltaic enterprise with annual sales revenue in excess of RMB 100 billion, 3 to 5 photovoltaic enterprises with annual sales revenues exceeding RMB 50 billion each, and 3 to 4 enterprises specializing in photovoltaic components with annual sales revenues exceeding RMB 1 billion each. The plan also calls for technical improvements to solar panel technology to improve the efficiency of production and the efficacy of solar panels in order to achieve 80% usage of indigenously manufactured equipment and materials for photovoltaic production. The plan also

²¹⁸ *Solar Photovoltaic Industry “12th Five Year” Development Plan* (Ministry of Industry & Information Technology Feb. 24, 2012), available in Chinese at <http://www.miit.gov.cn/n11293472/n11293832/n11293907/n11368223/14473431.html>.

calls for decreases in the cost of photovoltaic assemblies to RMB 7,000 per kilowatt by 2015 and to RMB 5,000 per kilowatt by 2020.

To realize these goals, the plan sets forth 7 types of support.

- First, the plan calls for what it terms “relevant agencies” to prioritize the photovoltaic industry because of its strategic implications for national energy generation policy, through industrial, fiscal, financial, and human capital support policies.²¹⁹
- Second, the plan calls for greater regulation of photovoltaic enterprises to ensure quality and efficient production, to prevent the construction of redundant, low-quality manufacturing facilities, and to reduce harmful competition.
- Third, the plan calls for official support for the establishment of major enterprises with recognizable brand names. Such enterprises will have the capacity to implement the national industrial goals of greater content value, expanded scale of development, the national “going-abroad” strategy that encourages Chinese companies to expand into overseas markets and invest abroad, participation in international competition, the relocation of polysilicon producers towards western regions in China, and the formation of larger, more competitive industrial groups.
- Fourth, the plan envisions changes to electricity tariffs, subsidies, and financial support to support the national photovoltaic market.
- Fifth, the plan calls for official support for innovation by key enterprises, including the training of personnel, support for R&D facilities at enterprises, and post-doctoral research positions.
- Sixth, the plan calls for greater domestically generated intellectual property rights, the promotion of improved quality and standards in photovoltaic products that attain international standards, and the prevention of low-grade products from reaching the market.
- Seventh, the plan calls for improved organization of the photovoltaic industry through industry self-regulation, and calls on enterprises to improve their insurance against export risks, and solicit foreign investment capital to expand overseas markets.

The *Environmental Protection Equipment “12th Five Year” Development Plan*, published in March 2012, sets forth national goals for R&D in pollution control and monitoring

²¹⁹ The plan does not identify the agencies involved. See section II.A.1, above, for discussion on the broad discretion that provincial and local officials have in interpreting and implementing industrial policies.

technologies.²²⁰ The appendix to the plan lists specific types of pollution control and monitoring equipment for R&D. It calls for the construction of research laboratories and development of indigenous patented technology in these areas in order to promote the use of domestic manufactures to displace imports.

The plan envisions the creation of domestic industries such that industrial output of green equipment will increase annually by 20%, reaching RMB 500 billion in value by 2015. The goal is to increase exports of green equipment by 30% per year and to reach RMB 10 billion in exports by 2015. To realize this increase in industrial output for exports, the GOC will sponsor 20 major green technology manufacturers across China. The GOC will call on large research institutions and investment firms to provide investment capital to these enterprises. The plan also calls for the development of specialized green SMEs, which should be clustered at ten major production bases for green equipment across China.

The plan calls for tax incentives, including tax exemptions for green equipment enterprises and rebates of Customs duties on parts and raw materials used by green equipment enterprises for domestic production. It also calls for the use of grants provided by the central government to develop strategic new enterprises; the special fund for energy conservation and pollution control; and the special fund for SMEs. The plan calls for preferential financing to help green equipment firms list on the stock markets and issue bonds.

The June 2011 *State Environmental Protection “12th Five Year” Science and Technology Development Plan* calls for the development of both emergent strategic green technologies as

²²⁰ *Environmental Protection Equipment “12th Five Year” Development Plan* (Ministry of Industry & Information Technology Mar. 2, 2012), available in Chinese at <http://www.miit.gov.cn/n11293472/n11293832/n11294072/n11302450/14485484.html>.

well as policies to promote environmental protection.²²¹ The central government will support the development of new technologies for water testing and treatment. The plan also calls for greater use of domestically produced equipment while improving competitiveness. The plan envisions the establishment of 2 R&D centers.

The plan calls for the development of technologies for the treatment of waste and air pollution control technology. The plan also calls for development of equipment for ecological protection, and equipment to remedy heavy metal pollution and contaminated soils. The plan envisions RMB 1 billion in State funds for the development of the identified new technologies. The government will also sponsor basic research through science and technology funds, and support the construction of 2 new R&D centers for pollution prevention and control technologies and environmental engineering techniques.

The State Council issued the *National Strategic Emerging Industries “12th Five Year” Development Plan* in July 2012.²²² It emphasizes the development of energy conservation, green technology, information technology, biotechnology, the manufacturing of sophisticated equipment, alternative energy resources, new materials, and alternative fuel automobiles as SEIs. This national plan requires investments in R&D by key enterprises in these new strategic industries at the level of 5% of total sales revenues. The plan calls for new policies with respect to tax incentives, financing policies, technical standards, protection of intellectual property, and training of human capital. It calls for annual growth of 20% or more in these new strategic industries in order to develop key enterprises with the ability to produce their own innovation.

²²¹ *State Environmental Protection “12th Five Year” Science and Technology Development Plan* (Ministry of Environmental Protection June 9, 2011), available in Chinese at http://www.mep.gov.cn/gkml/hbb/bwj/201106/t20110628_214154.htm.

²²² “12th Five Year” *Plan for Development of National Strategic Emerging Industries*, *supra* note 191.

The plan sets forth goals for industries in alternative energy sources in the areas of nuclear power; wind power; solar power; and biomass power. It envisions the development of major green technology enterprise groups by 2015, including 10 to 15 production bases. The plan promotes the use of alternative energy sources, such as wind and solar power, at industrial parks and in suitable localities, in order to promote the development of bases for the manufacturing of alternative energy technologies. The plan promotes the development of new products in batteries, motors, and control units for electric and hybrid vehicles. To develop a market for these new industries, authorities will implement policies that induce the consumption of green technology, alternative energy, and alternative fuel vehicles, such as subsidies to consumers to encourage purchase of hybrid and electric vehicles.

The plan envisions the use of fiscal and financial support policies, drawn from existing funding sources:

- Compensation for risk-taking;
- Encouragement of financial institutions to provide lending support to new strategic enterprises;
- Promotion of bond issuances by enterprises;
- Assistance for firms to list on stock exchanges to solicit capital;
- Use of private securities swaps;
- Creation of government funds to provide initial and medium-term investments in new strategic enterprises;
- Provision of loan security; and
- Creation of special funds for the development of SEIs to support R&D, industry innovation, and demonstration projects.

The plan calls for international cooperation to attract foreign investment, encourage domestic enterprises and research institutions to establish R&D abroad, and attain international

standards. The plan encourages qualified enterprises to invest abroad; to promote the international use of their products and standards established by these enterprises with the help of export financing and insurance; and to achieve international recognition of their brand names with the help of official sponsorship of their registration of trademarks and acquisitions abroad.²²³

The NDRC, the Ministry of Science and Technology, the Ministry of Industry and Information Technology, and the Ministry of Finance will form a working group to implement the plan and develop these new strategic technology industries. The NDRC will consult what it considers to be relevant governmental departments to supervise the planning and implementation of the plan, and to timely report major problems to the State Council.

b) Provincial plans

Fujian. Although the primary focus of the October 2011 *Fujian Province Environmental Protection “12th Five Year” Science and Technology Plan* is the development and application of technologies to address environmental pollution and safety, the plan also includes a section on fostering green technology industries.²²⁴ The plan identifies 4 cities (Longyan, Xiamen, Quanzhou, and Fuzhou) as locations for the establishment of industrial bases or industrial parks for green technology enterprises. The plan names several enterprises within the province for the establishment of innovation service centers and product testing centers.

The plan calls for the construction of a provincial laboratory for environmental engineering. It also calls for enterprises to use State and provincial innovation funds for research

²²³ The plan does not specify the countries or manner in which SEIs should engage in overseas expansion and acquisitions. As mentioned above, the GOC’s industrial policies are frequently stated in general terms to allow lower officials to interpret and implement as appropriate. *See* section II.A.1, above, for discussion of this governmental practice.

²²⁴ *Fujian Province Environmental Protection “12th Five Year” Science and Technology Plan*, available in Chinese at <http://wenku.baidu.com/view/e4a21bed81c758f5f61f677b.html> (unofficial copy).

and funds from foreign nonprofit organizations. The plan envisions the use of incentives to attract talented personnel and absorption of advanced foreign technology and expertise from Taiwan, international organizations, research institutions, and multinational companies.

Guangdong. The November 2011 *Guangdong Province 12th Five Year Energy Conservation and Environmental Protection Industry Development Plan (Years 2011-2015)* calls for greater use of domestically-produced high-technology equipment.²²⁵ The provincial government will foster the development of enterprises that manufacture energy efficient and green technology products by establishing ten provincial-level industrial parks and bases. The goal is to attain annual increases in output by 20%, reaching a total of RMB 600 billion by 2015: RMB 180 billion in value for energy saving products, and RMB 420 billion in value for green technologies (RMB 150 billion in green equipment and services and RMB 270 billion in recycling). The provincial government will foster the development of leading enterprises, such that there will be 10 enterprises with annual output exceeding RMB 5 billion and 50 enterprises exceeding RMB 1 billion by 2015. To improve production technology, the province will establish 10 technological centers at enterprises, and build technological development centers and testing laboratories.

Authorities shall modify or apply industrial and land-use support policies to promote the development of the new industrial parks and bases. Authorities will support the new enterprises by providing R&D of technologies, project finance, product testing, market intelligence, and protection of intellectual property. Authorities will promote the development of key enterprises by promoting affiliation among enterprises, merging companies, listing companies on stock

²²⁵ *Guangdong Province 12th Five Year Energy Conservation and Environmental Protection Industry Development Plan (Years 2011-2015)* (Guangdong Provincial Gov't Nov. 4, 2011), available in Chinese at http://www.gdei.gov.cn/flxx/jnjh/zcfg/201111/t20111107_106085.html.

exchanges, and reorganizing enterprises to increase scale. The plan lists specific energy efficient products for emphasis: energy-saving building materials, LED lighting, energy-saving home and commercial appliances, and energy-saving automobiles.

The plan calls for strengthened fiscal support, including subsidies, discounts, awards, and pricing incentives for utilities to regulate power usage. In particular, enterprises are encouraged to apply for grants from the State energy conservation technology fund and similar programs. The plan also envisions preferential tax treatment and government encouragement of loans from banks. The authorities will also use preferential policies, such as the issuance of debt securities by the State and special permission for business operations, in order to encourage the participation of domestic private capital and foreign capital. In addition, the authorities will accord preferential treatment to qualified environmental products in government procurement.

The *Guangdong Province Strategic Emergent Industry “12th Five Year” Development Plan* calls for the development of SEIs in Guangdong.²²⁶ The plan calls for the development of manufacturing of alternative fuel vehicles and parts, energy-efficient products, green products, nuclear power generation products, solar panels and components, wind generators and components, and biomass power generation equipment. To help establish backbone enterprises in these industries, the provincial government will provide RMB 22 billion in financial support to SEIs, by assisting SEIs in paying loan interest, providing grants and security for loans, investing in the stocks of SEI enterprises, and assisting in bond issuances. The provincial government will also grant income tax preferences (such as deductions for R&D expenditures), VAT import exemptions, and VAT exemptions for the production of certain SEI products in

²²⁶ *Guangdong Province Strategic Emergent Industry “12th Five Year” Development Plan* (Guangdong Provincial Gov’t Mar. 6, 2012), available in Chinese at http://www.gdei.gov.cn/flxx/jscx/zlxxxxy/201203/t20120321_107086.html.

accordance with national policy. Furthermore, the provincial government will direct local governments to establish special funds to assist SEIs.

Hebei. The *Hebei Province Alternative Energy Industries “12th Five Year” Development Plan (Years 2011-2015)* calls for construction of renewable energy electric generation facilities and increased manufacturing capabilities for renewable energy products. The plan calls for reconstitution of existing enterprises to promote manufacturing of alternative energy equipment, with annual production targets for solar panels, as well as greater competitiveness in wind generation equipment. The plan calls for subsidies to encourage the use of equipment produced within the province for new renewable energy infrastructure and promotion of domestically produced equipment. The plan also calls for adoption of the national “going abroad” policy of encouraging Chinese investments overseas to utilize foreign resources and production facilities to improve alternative energy industries within the province.

Heilongjiang. This northeastern province lies just south of the Russian border. In 2011, the province had a population of 38.3 million, a GDP of RMB 1.3 trillion (US\$ 194.7 billion), and a per capita GDP of RMB 32,819 (US\$ 5,080).²²⁷ The *Heilongjiang Province Alternative Energy and Renewable Energy Industrial Development Plan (Years 2010-2020)* was issued in February 2010. It calls for development of industries in wind generators and components, photovoltaic production, and other new technologies such as cars powered by alternative energy sources and biomass energy. The plan calls for all levels of government to implement policies including financial policies and electric tariff rates to support such efforts.

²²⁷ See “Heilongjiang: Market Profile,” available at <http://china-trade-research.hktdc.com/business-news/article/Fast-Facts/HEILONGJIANG-PROVINCE/ff/en/1/1X000000/1X06BWA2.htm>.

Hunan. Hunan Province issued its “12th Five Year” *Alternative Energy Equipment Manufacturing Development Study* in August 2011.²²⁸ It calls for the development of manufacturing facilities for solar power, wind power, and alternative fuel vehicles and components, which would tie suppliers to the makers of final products. The plan sets targets for annual production levels for solar energy equipment, solar crystalline silicon materials, solar panels, large wattage wind generators and complementary products, alternative fuel automobiles and components, and biomass energy equipment (as well as nuclear energy and electrical grid products). The plan proposes development of 5 major industrial clusters in several designated places for these fields of R&D and manufacturing.

Jiangxi. This southeastern landlocked province lies to the west of coastal Fujian Province. In 2011, the province had a population of 44.9 million, a GDP of RMB 1.2 trillion (US\$ 181.1 billion), and a per capita GDP of RMB 26,150 (US\$ 4,048).²²⁹ In May 2012, the Jiangxi Provincial Government promulgated its “12th Five Year” *Alternative Energy Development Plan*, which emphasizes the utilization of renewable energy for power generation.²³⁰ The plan calls for support for manufacturing capabilities in solar power, wind power, and alternative fuel vehicles. It further calls for development of cleaner polysilicon production and equipment, solar panel manufacturing, and wind power equipment. It also provides targets for annual sales of alternative fuel vehicles. The plan mentions the use of favorable electricity rates, government subsidies, tax policies, and financial support.

²²⁸ *Hunan Province “12th Five Year” Alternative Energy Equipment Manufacturing Development Study* (Hunan Provincial Gov’t Aug. 19, 2011), available in Chinese at <http://www.hnfgw.gov.cn/site/QYGH1/22081.html>.

²²⁹ See “Jiangxi: Market Profile,” available at <http://china-trade-research.hktdc.com/business-news/article/Fast-Facts/JIANGXI-PROVINCE/ff/en/1/1X000000/1X06BV96.htm>.

²³⁰ *Jiangxi Province “12th Five Year” Alternative Energy Development Plan* (Jiangxi Provincial Gov’t May 22, 2012), available in Chinese at <http://www.jxzb.gov.cn/2012-8/20128231003380.htm>.

Shandong. Like other provinces, the *Shandong Province Strategic Emerging Industries “12th Five Year” Development Plan* tracks the national SEI strategy and envisions the development of industries to manufacture products for solar power, wind power, nuclear power, and biomass power generation.²³¹ Furthermore, the provincial government intends to establish a base for the production of alternative fuel vehicles and parts. To achieve these goals, the provincial government intends to continue allocating funds from its special SEI fund to enterprises, at least RMB 1 billion annually. The province will also induce policy-oriented lenders to provide loans to SEI enterprises. Furthermore, the province will employ preferential land use policies, such that SEIs would have priority in land use, and at a discount of up to 30% from the government-established minimum land use price.

Sichuan. This central, landlocked province has a population of 80.5 million.²³² In 2011, the province had a GDP of RMB 2.1 trillion (US\$ 325.5 billion), and a per capita GDP of RMB 26,133 (US\$ 4,045).²³³ The provincial government promulgated its *Environmental Protection “12th Five Year” Science and Technology Development Specific Plan* in July 2011.²³⁴ Although this plan primarily emphasizes R&D of new techniques to address environmental pollution, it mentions that the research facilities established under the plan will promote the creation of SEIs in energy efficient and green technology products. The plan provides for 4 or more

²³¹ *Shandong Province Strategic Emerging Industries “12th Five Year” Development Plan* (Shandong Provincial Gov’t Nov. 2, 2012), available in Chinese at http://www2.shandong.gov.cn/art/2012/11/15/art_3883_3118.html.

²³² “Sichuan: Market Profile,” available at <http://china-trade-research.hktdc.com/business-news/article/Fast-Facts/SICHUAN-PROVINCE/ff/en/1/1X000000/1X06BVRO.htm>.

²³³ *See id.*

²³⁴ *Sichuan Province Environmental Protection “12th Five Year” Science and Technology Development Specific Plan* (Sichuan Provincial Gov’t Aug. 3, 2011), available in Chinese at http://www.schj.gov.cn/index.php?option=com_content&task=view&id=19402&Itemid=3235.

environmental engineering technology centers and laboratories that will be accredited at the provincial level, and 1 at the national level. To build these facilities, the provincial government will allocate RMB 14 million.

8. The Oil Industry

The table below shows the output of China’s petroleum industry during the five year period of 2007 through 2011 and its share of China’s industrial sector.²³⁵

Table 9: Output of Petroleum and Natural Gas Extraction (2007-2011)

Year	Total Output of Petroleum and Natural Gas Extraction		Total National Industrial Output		Share (%)
	(RMB millions)	(US\$ millions)	(RMB millions)	(US\$ millions)	
2007	830,005	108,925	40,517,713	5,317,285	2.1
2008	1,061,596	154,752	50,744,825	7,397,205	2.1
2009	751,754	110,066	54,831,142	8,027,986	1.4
2010	991,784	146,281	69,859,054	10,303,695	1.4
2011	1,288,876	199,516	84,426,879	13,069,176	1.5

(US\$ 1 was worth RMB 7.6 on June 30, 2007; RMB 6.8 on June 30, 2008; RMB 6.8 on June 30, 2009; RMB 6.8 on June 30, 2010; and RMB 6.5 on June 30, 2011.)

a) National plans

The GOC is extremely concerned about its energy security, and it has implemented a number of plans calling for large infrastructure projects requiring significant oil and gas equipment. Several of the national and provincial policies mentioned in section II.E.4, above, also relate to the development of manufacturing of equipment and machinery used in the production and transportation of oil and gas.²³⁶

²³⁵ Chinese national statistics only cover enterprises above a certain size. Before 2011, surveys included enterprises with sales revenue exceeding RMB 5 million. Since 2011, surveys have included enterprises with sales revenue exceeding RMB 20 million. Thus, national statistical reports may understate the contribution of SMEs.

²³⁶ See section II.E.4, above, for summaries of *Tianjin Municipality Equipment Manufacturing Industry Development “12th Five Year” Plan* and *Zhejiang Province High-end Equipment Manufacturing Industry Development Plan*; see also “12th Five Year” Plan for Development of National Strategic Emerging Industries, *supra* note 191 (listing petroleum industry equipment for emphasis under the policy).

The *Energy Development 11th Five Year Plan*, issued by the NDRC in April 2007, called for developing oil and gas bases through innovation in geological theories and the application of new technologies. It also called for “strengthening the construction of main oil and gas pipelines, adding necessary double lines and key connection lines, and accelerating the construction of transit hubs and strategic storage facilities, to gradually form national main oil and gas pipeline network and key regional network.” The *Energy Development 12th Five Year Plan*, issued in January 2013, continues to emphasize the domestic production of petroleum and natural gas. Similarly, the *Mineral Resources Conservation and Comprehensive Utilization “12th Five Year” Plan*, issued by the Ministry of Land and Resources in December 2011, calls for promoting the efficient exploitation of oil and gas resources development of vertically integrated shale gas production.

The *Implementation Opinions of the National Energy Administration on Encouraging and Guiding Private Capital to Further Expand Investment in the Energy Field*, issued by the National Energy Administration in mid-2012, encourages companies with private capital to engage in oil and gas exploration and development, to invest in large-scale oil refining projects, and to participate in the construction of oil and natural gas pipeline network. In addition, the *Western Development 12th Five Year Plan*, issued by the NDRC in February 2012, calls for strengthening the exploration and development of oil and natural gas resources. It gives priority to the construction of several oil and gas resources strategic zones, building a batch of oil refining bases, promoting the integration of upstream and downstream industries, and speeding up the construction of oil pipeline networks. The Plan directs the government to increase government grants and use policy loans to support the development of the western region.

The *High-End Equipment Manufacturing Industry 12th Five Year Development Plan*, issued in March 2012 by the Ministry of Industry and Information Technology, the NDRC, and the Ministry of Finance, calls for developing equipment for offshore oil exploitation. As discussed above, the plan directs the government to increase fiscal and tax support, to encourage financial institutions to offer financing, and to encourage leasing companies to provide relevant services.

Although not directly linked to any formal industrial policy, an important tool that the Chinese government uses to advantage its domestic industry producing oil-related equipment is export financing. The China Development Bank, which is wholly-owned by the Chinese government and dedicated to fulfilling government economic policies, will include provisions requiring Chinese goods or technology in its loans to finance oil projects.²³⁷ Such loans are often made on better terms than are available from commercial sources:

Since 2009, China Development Bank (CDB) has extended lines of credit totaling almost US\$75 bn to national energy companies and government entities in Brazil, Ecuador, Russia, Turkmenistan and Venezuela. The loans are secured by revenue earned from the sale of oil to China's national oil companies (NOCs), except in the case of Turkmenistan, which is delivering natural gas. These energy-backed loans are distinguished by their large size (up to US\$21 bn), long terms (up to 20 years), the relatively short period of time in which they were made (less than two years), and their initial availability during the global financial crisis, when virtually no

²³⁷ Erica Downs, "China Development Bank's oil loans: Pursuing policy - and Profit," *China Economic Quarterly* (Dec. 2011) ("The energy-backed loans made by CDB to Brazil in 2009 and Venezuela in 2010 both require the borrowers to buy and hire from China"). These energy loans are secured with revenues from oil or natural gas deliveries to Chinese oil companies. *Id.* Some loans also require the borrower to make purchases from China. *Id.* A loan to Petrobras, for example, required the company to use US\$ 3 billion of the US\$ 10 billion loan to purchase petroleum equipment from China. *Id.* A loan to Venezuela required the borrower to spend U.S. \$10.6 billion of the U.S. \$20.6 billion loan for purchasing Chinese goods or hiring Chinese firms. *Id.* Both loans have ten-year terms. *Id.* The interest rate for the loan to Petrobras is at LIBOR + 2.8%, and the loan to Venezuela has an interest rate at LIBOR + 0.5 - 2.85%. *Id.*

other financial institutions were willing to lend such large amounts of capital for such long periods of time.²³⁸

b) Provincial plans

Shanxi. This landlocked province in north-central China has a population of approximately 35.9 million, a GDP of RMB 1.1 trillion (US\$ 174 billion), and a per capita GDP of RMB 31,357 (US\$ 4,854).²³⁹ The May 2012 *Shanxi Province “12th Five Year” Energy Development Plan* calls for steadily increasing capacity by building oil production bases and pipelines. The Plan directs the government to “improve the industrial policy system, implement incentive policies for accelerating the structural adjustment, to promote the optimization and upgrade of industrial structure.”

Sichuan. In this province, the “12th Five Year” *Energy Development Plan*, issued in October 2011, aims to build a diversified oil supply system led by SOEs. Particular goals include adding 10 million metric tons per year of refining capacity and 1,939 km of pipelines. The plan mandates the establishment of a scientific and technological improvement special fund, and encourages scientific and technological development.

Xinjiang. This far western territory, with a population of 22.1 million, a GDP of RMB 661 billion (US\$ 102 billion), and a per capita GDP of RMB 30,087 (US\$ 4,657),²⁴⁰ issued its *Energy Development “12th Five Year” Plan* in July 2012. The plan aims to make the region China’s most important large-scale oil and gas production, processing, and storage base.²⁴¹

²³⁸ *Id.*

²³⁹ See “Shanxi: Market Profile,” available at <http://china-trade-research.hktdc.com/business-news/article/Fast-Facts/SHANXI-PROVINCE/ff/en/1/1X000000/1X06BVQP.htm>.

²⁴⁰ See “Xinjiang: Market Profile,” available at <http://china-trade-research.hktdc.com/business-news/article/Fast-Facts/XINJIANG-UYGUR-AUTONOMOUS-REGION/ff/en/1/1X000000/1X06BVVK.htm>.

²⁴¹ “Xinjiang Uygur Autonomous Region Energy Development ‘12th Five Year’ Plan Is published for Implementation,” (July 18, 2012), available in Chinese at

SASAC reported that “central enterprises, such as China Huadian Corporation and China National Petroleum Corporation, will strengthen the industrial support for Xinjiang, and the State-owned Assets Supervision and Administration Commission will also continue giving priorities to Xinjiang supporting projects with respect to funding, technology, and talent.”²⁴²

9. Steel

The table below shows the output of China’s steel industry during the five year period of 2007 through 2011 and its share of China’s industrial sector.²⁴³

Table 10: Output of Ferrous Metals Smelting and Pressing

Year	Total Output of Ferrous Metals Smelting and Pressing (RMB millions) (US\$ millions)		Total National Industrial Output (RMB millions) (US\$ millions)		Share (%)
	RMB millions	US\$ millions	RMB millions	US\$ millions	
2007	3,370,301	442,297	40,517,713	5,317,285	8.3
2008	4,472,796	652,011	50,744,825	7,397,205	8.8
2009	4,263,615	624,248	54,831,142	8,027,986	7.8
2010	5,183,358	764,507	69,859,054	10,303,695	7.4
2011	6,406,698	991,749	84,426,879	13,069,176	7.6

(US\$ 1 was worth RMB 7.6 on June 30, 2007; RMB 6.8 on June 30, 2008; RMB 6.8 on June 30, 2009; RMB 6.8 on June 30, 2010; and RMB 6.5 on June 30, 2011.)

<http://www.xjdc.gov.cn/content.jsp?urltype=news.NewsContentUrl&wbtreeid=9916&wbnewsid=206802> (Xinjiang Uygur Autonomous Region Development & Reform Commission website); *see also* “Excerpts of the *Xinjiang Uygur Autonomous Region Energy Development ‘12th Five Year’ Plan*” (July 17, 2012), *available in Chinese at* <http://www.xjdc.gov.cn/content.jsp?urltype=news.NewsContentUrl&wbtreeid=11309&wbnewsid=206757>.

²⁴² “Central Enterprises Plan to Invest More Than RMB 700 Billion in Xinjiang, Six Stocks Are Expected to Explode,” *Shanghai Securities News* (July 28, 2012), *available in Chinese at* http://news.xinhuanet.com/fortune/2012-07/28/c_123484331.htm.

²⁴³ Chinese national statistics only cover enterprises above a certain size. Before 2011, surveys included enterprises with sales revenue exceeding RMB 5 million. Since 2011, surveys have included enterprises with sales revenue exceeding RMB 20 million. Thus, national statistical reports may understate the contribution of SMEs.

a) National plans

The *Iron and Steel Industry Adjustment and Revitalization Plan*, issued by the State Council in March 2009, covered 2009-2011. The Plan aimed to “curb the decline in the iron and steel industry and maintain overall stability in 2009,” and called on the industry to improve technology and innovation and increase competitiveness. The plan directed the government to “improve the import and export environment for iron and steel products, carry out a moderately flexible export tax policy, stabilize the share in the international market, and encourage the indirect export of steel products.” The plan provided a number of support measures for the iron and steel industry, including:

- Raising the export rebate rates for technology-intensive and high value-added steel products;
- Increasing grants to support technological improvement and renovation;
- Implementing supporting measures, such as tax incentives to encourage the industry consolidation and restructuring among iron and steel enterprises; and
- Strengthening the financial support for key and backbone enterprises, and improving the export credit insurance policy to support iron and steel enterprises to build overseas marketing and sales networks and maintain the export share of high-end products.

Along similar lines, the *Iron and Steel Industry 12th Five Year Plan*, issued by the Ministry of Industry and Information Technology in October 2011, aims to

achieve noticeable improvement in the structure adjustment of the iron and steel industry, form a relatively reasonable distribution of the productivity in general, apparently raise the resources guarantee level, have the gross volume, type, and quality of iron and steel basically meet the need for the national economic development, have key iron and steel enterprises under statistics reach the advanced international level, have certain enterprises have relatively strong competitiveness and influence in the international market, and primarily realize the transition from a big iron and steel industry to a strong iron and steel industry.

The plan calls on the government to “strengthen the connection between fiscal, taxation, financial, trade, land, energy-saving, environmental protection, safe production, and other policies, with the iron and steel industry policy,” and “timely adjust the product import and export trade policy, and actively respond to international trade frictions.”

b) Provincial plans

Inner Mongolia. This inland region to the south of Mongolia has a population of 24.8 million, a GDP of RMB 1.4 trillion (US\$ 222.3 billion), and a per capita GDP of RMB 57,974 (US\$ 8,974).²⁴⁴ This region has its own *Iron & Steel Industry “12th Five Year” Development Plan*, which was issued in February 2012. The plan calls for raising the competitiveness of iron and steel enterprises and sets a target of 8.5% average annual capacity growth. Support for industry consolidation will be provided through, *inter alia*, preferential policies for the disposal of debts and assets, reductions and exemptions from taxes and fees, and loans. Support for brand development will come through similar channels -- low-interest loans, interest subsidies, tax incentives, and grants. The plan offers additional support for the development of low-carbon production technologies through grants, government procurement, and loans.

Jiangxi. The *Jiangxi Province Iron & Steel Industry 12th Five Year Development Plan*, released in April 2012, gives priority to major steel projects when resolving problems concerning land, environmental protection, resources, administrative approvals, and capital. The plan directs the government to support enterprises engaging in technological improvements through means including government grants. The plan also calls on the government to “establish an industrial

²⁴⁴ See “Inner Mongolia: Market Profile,” available at <http://china-trade-research.hktdc.com/business-news/article/Fast-Facts/SHANXI-PROVINCE/ff/en/1/1X000000/1X06BVQP.htm>.

investment fund, and support enterprises to resolve financing problems through various means such as issuing bonds.”

Shandong. This province’s steel and iron policy plan, issued in mid-2011, is entitled the *Shandong Province Iron & Steel Industry 12th Five Year Development Plan*. It gives priority to the cultivation of advantaged enterprises and 8 categories of products --sheets, plates, stainless steel products, fine and specialty steel products, H-shaped steel products, high-strength steel reinforcement products, high-quality wires, and high-quality pipes and tubes. The plan requires that

the government at all levels should help enterprises expand financing channels, and resolve enterprises’ financing difficulties by multiple means such as issuing bonds, offering stocks to the public, attracting investment, and etc. Financial institutions should seriously implement the financial policy of the central government, expand the scale of credit loans, strengthen the loan support for backbone iron and steel enterprises to develop new products and extend industrial chains, and promote enterprises’ technological renovation and product structure adjustment. For key projects approved by the state, the government at all levels should innovate the means of raising funds, adjust the structure of fund expenditure, and actively provide supporting funds.

10. Wind Power Generators

a) National plans

As indicated above in section II.E.7, the national “green technology” industrial policies on renewable energy and SEIs included goals for wind power. In addition, the *Wind Power Generation Technology Development “12th Five Year” Specific Plan*, issued in March 2012, calls for the development of designs and industrial production of 3 to 5 megawatt wind generator assemblies and parts; 7 megawatt wind generator assemblies and parts, including design, manufacturing, installation, and operation to promote industrialized production of large-scale

wind generators; and 10 megawatt wind generators and parts for installation at sea.²⁴⁵ The plan calls for the training of expert personnel and the construction of nationally recognized laboratories and construction technology centers. To realize these goals, the plan calls for the training of personnel to international standards, improving the quality of supervision over R&D, improving information technology services, improving intellectual property protection, and developing industry standards and product testing. The plan also calls on authorities to utilize national high technology industrial development zones and national high technology industrialized bases to promote the establishment of innovative industrial clusters.

The National Energy Administration issued 2 notices in 2011 and 2012 regarding the approval of wind power projects across China.²⁴⁶ These 2 bulletins altogether represent 28.9 million kilowatts of electric power generation capacity.²⁴⁷ These projects indicate the GOC's intention to foster the growth of wind power generation within China as a means to both satisfy domestic energy demand and to spur the growth of manufacturing of equipment for wind power generation. The State Council has also issued its *Energy Development "12th Five Year" Plan*, which includes wind energy as an area of focus.²⁴⁸ Recent news reports indicate that this

²⁴⁵ *Wind Power Generation Technology Development "12th Five Year" Specific Plan* (Ministry of Science & Technology Mar. 27, 2012), available in Chinese at http://www.most.gov.cn/fggw/zfwj/zfwj2012/201204/t20120424_93884.htm.

²⁴⁶ See Notice Concerning the Publication of the Second Series of Approved "12th Five Year" Wind Power Projects, No. 82 (2012) (Mar. 19, 2012); Notice Concerning the First Set of Planned "12th Five Year" Wind Power Projects Intended for Approval, No. 200 (2011) (Oct. 1, 2011).

²⁴⁷ *Id.*

²⁴⁸ *Energy Development "12th Five Year" Plan*, State Council No. 2 (2013) (Jan. 1, 2013), available in Chinese at http://www.gov.cn/zwggk/2013-01/23/content_2318554.htm.

strategy is working, as China has just shipped its first major order of 100 wind power generators of 1.5 megawatts capacity to India.²⁴⁹

b) Provincial plans

As mentioned in section II.E.7 above, the provinces of Guangdong, Hebei, Heilongjiang, Hunan, Jiangxi, and Shandong all have alternative and renewable energy plans that include targets for the manufacturing of wind power products. In addition, the Guangdong and Jiangsu plans are noteworthy for their implications for wind power.

Guangdong. As discussed earlier, the *Guangdong Province Strategic Emergent Industry “12th Five Year” Development Plan* includes the production of wind power generators and equipment as part of the province’s SEI strategy.²⁵⁰ This plan calls for the establishment of a base for the production of utility-scale wind power generators and parts at Zhongshan. The plan envisions the establishment of manufacturing bases for small-scale wind generator assemblies and solar-wind co-generation equipment at Foshan and Guangzhou, the manufacturing of wind power generator control systems at Shenzhen and Dongguan, and R&D for utility-scale wind generators in the Pearl River delta region. As mentioned in section II.E.7 above, the provincial government has committed to providing RMB 22 billion to SEIs under the plan, which includes wind power industries.

Jiangsu. This province has issued 2 policies relating to the manufacturing of wind power generators and related equipment. The *Jiangsu Province “12th Five Year” Plan for Fostering and Developing Strategic Emergent Industries* includes the development of manufacturing

²⁴⁹ “China Exports Wind Power Generators for First Time to India,” *China Daily* (Jan. 31, 2013), available in Chinese at http://www.chinadaily.com.cn/hqgj/jryw/2013-01-31/content_8185397.html.

²⁵⁰ *Guangdong Province Strategic Emergent Industry “12th Five Year” Development Plan*, *supra* note 226.

capabilities in wind power generators and components, with a target of an approximately 50% share of the domestic market.²⁵¹ The plan calls for financial support for the SEIs from both provincial and local government, which will establish a total of RMB 100 billion in seed capital to invest in new SEI enterprises.

The *Jiangsu Province Wind Power Generator Equipment Development Plan* calls for the establishment of industries that produce wind power equipment to meet domestic demand.²⁵² The plan envisions the production of generators, transmission boxes, turbine blades, towers, and control units. The plan envisions the establishment of backbone enterprises in wind power products. The provincial government will provide RMB 1.5 billion for a project to produce wind power generators, and RMB 700 million for a project to manufacture parts for wind generators.

III. REMEDIES AVAILABLE TO BRAZILIAN INDUSTRIES THAT ARE HARMED BY SUBSIDIZED CHINESE PRODUCTS

A. Overview Of Potential Remedies

Brazilian industries may be harmed by subsidized and unfairly priced Chinese products in their home market in Brazil, in the Chinese market, or in other export markets. The WTO Agreement on Subsidies and Countervailing Measures (“SCM Agreement”) provides 2 avenues for combating China’s subsidy practices: (1) countervailing duty investigations conducted by the Brazilian investigating authority and (2) dispute settlement proceedings before the WTO Dispute Settlement Body in Geneva. Countervailing duty petitions can only be brought against subsidized imports into Brazil and, as a result, cannot be used to address the harm caused by

²⁵¹ *Jiangsu Province “12th Five Year” Plan for Fostering and Developing Strategic Emergent Industries* (Jiangsu Provincial Gov’t 2011), available in Chinese at http://guoqing.china.com.cn/gbbg/2012-07/06/content_25837900.htm.

²⁵² *Jiangsu Province Wind Power Generator Equipment Development Plan* (Jiangsu Provincial Gov’t Apr. 2008).

Chinese subsidies in other markets. WTO complaints, on the other hand, can address subsidized Chinese products that cause harm in either the Brazilian market, Chinese market, or other export markets.

The remedy in a countervailing duty case is the imposition of duties to offset the estimated amount of the subsidies benefiting the imported goods. The remedy in a WTO case depends on whether the subsidy is “prohibited” or “actionable.” If a challenged measure is found to be a prohibited subsidy, a panel will recommend that the subsidizing WTO Member “withdraw the subsidy without delay.”²⁵³ If a challenged measure is found to be an actionable subsidy, a panel will recommend that the subsidizing Member “take appropriate steps to remove the adverse effects or shall withdraw the subsidy.”²⁵⁴

B. Countervailing Duty Proceedings

Imported goods from China have been subject to many countervailing duty investigations conducted by national authorities around the world, including Australia, Canada, the European Union, India, Mexico, South Africa, and the United States. The governments of Australia, Canada, European Union, and the United States have all imposed countervailing duties on Chinese products as a result of such investigations. The United States has conducted the most, having initiated more than 30 cases in a wide variety of industries, followed by Canada, which has imposed countervailing duties on 10 Chinese products. Australia is currently applying countervailing duties to 3 Chinese products. The European Union has imposed countervailing duties on 1 Chinese imported product and is conducting several more investigations.

Investigations in some countries, however, were not completed after Chinese interests brought

²⁵³ Article 4.7 of SCM Agreement. Prohibited subsidies are those contingent on either export performance or the use of domestic over imported goods.

²⁵⁴ Article 7.8 of SCM Agreement.

political pressure to bear on either the complaining industry or national government.²⁵⁵

Subsidies for some products, such coated paper and aluminum extrusions, have been investigated by numerous authorities as imports blocked from some markets by countervailing duties have been diverted to others.

1. The U.S. experience

The United States has conducted the most countervailing duty investigations involving Chinese products to date, with more than 2 dozen completed. Successful cases resulting in the imposition of antidumping (“AD”) and countervailing (anti-subsidy) (“CV”) duties include:

Table 11: U.S. Antidumping and Countervailing Duty Orders on Chinese Imports

	Product	Date of Publication	AD Duty (%)	CV Duty (%)
1.	Stainless Steel Sinks	Imminent	76.5	8.5
2.	Wind Towers	February 15, 2013	70.6	28.3
3.	Silicone Photovoltaic Cells	Dec. 7, 2012	249.9	15.2
4.	High Pressure Steel Cylinders	June 25, 2012	31.2	15.8
5.	Multilayered Wood Flooring	Dec. 8, 2011	58.9	1.5
6.	Aluminum Extrusions	May 26, 2011	33.3	374.2
7.	Drill Pipe and Drill Collars	Mar. 3, 2011	429.9	18.2
8.	Potassium Phosphate Salts	July 22, 2010	95.4	109.1
9.	Coated Paper Suitable for High-Quality Print Graphics Using Sheet-Fed Presses	Nov. 17, 2010	135.8	19.5
10.	Seamless Carbon & Alloy Steel Standard, Line, & Pressure Pipe	Nov. 10, 2010	98.7	35.2
11.	Certain Magnesite Carbon Bricks	Sept. 20, 2010	236.0	24.2
12.	Narrow Woven Ribbons With Woven Selvedge	Sept. 1, 2010	247.6	1.6
13.	Steel Grating	July 23, 2010	145.2	62.5
14.	Pre-stressed Concrete Steel Wire Strand	June 29, 2010 (AD)/ July 7, 2010 (CV)	193.5	27.6
15.	Oil Country Tubular Goods	May 21, 2010 (AD)/ Jan. 20, 2010 (CV)	99.1	13.4
16.	Kitchen Appliance Shelving & Racks	Sept. 14, 2009	95.9	13.3
17.	Tow Behind Lawn Groomer	Aug. 3, 2009	386.3	13.3
18.	Citric Acid & Certain Citrates	May 29, 2009	156.9	8.1

²⁵⁵ See, e.g., “South Africa: China Blocks Subsidy Challenge from Country,” *allAfrica.com* (Feb. 17, 2009).

19.	Circular Welded Carbon Quality Steel Line Pipe	May 13, 2009/ Jan. 23, 2009	101.1	35.7
20.	Circular Welded Austenitic Stainless Pressure Pipe	Mar. 17, 2009 (AD)/ Mar. 19, 2009 (CV)	55.2	1.5
21.	Sodium Nitrite	Aug. 27, 2008	190.7	169.0
22.	Raw Flexible Magnets	Sept. 17, 2008	185.3	109.9
23.	Lightweight Thermal Paper	Nov. 24, 2008	115.3	13.6
24.	Laminated Woven Sacks	Aug. 7, 2008	91.7	226.9
25.	Light-walled Rectangular Pipe & Tube	Aug. 5, 2008	264.6	15.3
26.	New Pneumatic Off-the-Road Tires	Sept. 4, 2008	210.5	5.6
	Circular Welded Carbon Quality Steel Pipe	July 22, 2008	85.6	37.3

Sources: U.S. Department of Commerce; Federal Register.²⁵⁶

The subsidy rates imposed vary greatly depending on a number of factors including the degree to which the respondents operate in an industry encouraged by the GOC, the particular companies participating, and the degree to which the GOC cooperated in the investigation.

Although in a few instances the subsidy rates calculated for particular companies have been *de minimis*, in most cases companies receive subsidy rates in the single or sometimes double digits.

When either a Chinese respondent company or the GOC fails to cooperate, rates are often multiples of the value of the subject merchandise, as a result of the application of “adverse facts available.”²⁵⁷

The U.S. Department of Commerce has found a wide variety of subsidies to benefit Chinese producers and exporters. These include various income tax programs, exemptions from other taxes and fees, preferential loans, debt forgiveness, discounted land use rights, low-cost input materials, and a variety of industry or jurisdiction-specific programs. The companies benefiting from these subsidies receive them because of their ownership (*i.e.*, either State

²⁵⁶ The AD and CV duty rates in this table are the original duty rates published in the Federal Register. The rates for many of these products may have subsequently changed in the course of administrative reviews and judicial reviews of the AD/CV duty orders. Furthermore, these AD/CV duty rates are the general country-wide rates applicable to China. In many instances, individual companies receive lower, company-specific duty rates.

²⁵⁷ See 19 U.S.C. § 1677e.

ownership or investment from foreign sources), activity in an encouraged industry, adherence to an industrial policy, or location. The following table outlines the types of countervailable support that is frequently available from the GOC and the types of entities that receive it.

Table 12: Summary of Typical Subsidy Measures

Type Of Subsidy	Typical Recipients	Additional Comments
Policy Loans	SOEs	Sometimes loans not repaid
	Companies in “encouraged” industries or undertaking “encouraged” projects	Often from policy banks but commercial banks also required to consider industrial plans
	Entity undertaking infrastructure or social program	Policy banks finance agricultural and other projects
Preferential Income Tax Rates	“Productive” companies with at least 25% foreign investment	Repealed but effective until the end of 2012
	Companies located in designated zones or regions	Repealed for some classes of companies
	“High” and “New” technology companies	Effective beginning in 2008
VAT & Tariff Rebates	Companies in encouraged industries purchasing equipment	Intended to help Chinese companies “catch up”
Grants	SOEs	Usually tied to losses or technological renovation
	Exporters	Many local governments rebate a percentage of export earnings
	Holders of intellectual property rights or brand names	Refund of application fees and others costs
Government Provision of Good or Service	SOEs	Eligible for special land use rights
	Residents of special economic zones	Eligible for special land use rights
	Companies downstream from “strategic” industries	Chinese prices for inputs such as steel, rubber, or petrochemicals are often below world prices as a result of government policies

Countervailing duty investigations are initiated after a domestic industry presents *prima facie* evidence that the government of the exporting country maintains subsidies programs. It is not necessary to show that particular companies benefit from such subsidy programs to launch an investigation; all that is required is showing that the programs exist and appear to meet the WTO definition of a countervailable subsidy (*i.e.*, a financial contribution that confers a benefit and is

either specific or prohibited). A petitioning industry can make such a factual showing through any number of means, including references to the laws of the target country, statements on government websites, newspaper articles, and company financial documents. Whether the producers or exporters at issue benefit from the alleged subsidy programs is determined in the course of the investigation, which can last for up to 18 months. The investigating authority will determine whether the respondents benefitted from subsidies following detailed reviews of the company's accounting records, loan documents, land use rights certificates, and the like.

2. China's reaction

China has vigorously challenged the countervailing duties imposed by the United States, both before the U.S. courts and through dispute settlement at the WTO. It has not, however, challenged the countervailing duties imposed by Australia or Canada, likely because of the relative size of those markets. Of the 3 WTO challenges China has filed, only 1 has resulted in reports by a panel and the Appellate Body. In this case, *U.S. - Anti-Dumping and Countervailing Duties* (DS 379), China made the following claims:

- China should not be subject to both antidumping and countervailing duties while considered a non-market economy for antidumping purposes because the effect of any subsidies is remedied by the antidumping duties;
- SOEs were not “public bodies” capable of conferring subsidies when they provided goods or services;
- Certain of countervailed subsidy programs were not “specific” to certain industries, enterprises, or regions and thus were not actionable under the SCM Agreement; and
- The Chinese market for certain goods and services was not distorted and could provide useable market benchmarks to determine whether such goods and services were provided for less than adequate remuneration

Although most of China's claims were not accepted, it did succeed in several respects. First, although the United States did show sufficient evidence that State-owned banks were public bodies capable of conferring subsidies, there was not sufficient evidence on the record of

the relevant investigations regarding certain other classes of SOEs such as steel, rubber, and petrochemical producers. Second, the Appellate Body found that an investigating authority had an obligation to (1) investigate and determine to what extent countervailing duties and antidumping duties calculated through a non-market economy methodology provided a double remedy and (2) prevent such a double remedy. The United States subsequently revised its antidumping and countervailing duty findings to address these issues on a prospective basis. China has, however, indicated that it is not satisfied and that it will continue to challenge the measures.

In its second WTO complaint, *U.S. - Countervailing Measures* (DS 437), China challenges various aspects of the U.S. investigative process, including the standards for initiation of an investigation and what China terms the “rebuttable presumption” adopted by the U.S. authorities that entities with majority government ownership constitute public bodies. No decisions have been issued in this proceeding.

In the third WTO case brought by China on countervailing duties, *U.S. - Countervailing and Anti-Dumping Measures on Certain Products from China* (DS449), China challenges the new U.S. law implemented retroactively to allow the U.S. Department of Commerce to continue to apply countervailing duties to imports from China and to adjust for any double remedy when antidumping duties are imposed on the same product. No decisions have been issued in this proceeding.

C. WTO Complaint

As briefly explained above, subsidies can be challenged under the SCM Agreement as either prohibited or actionable. Subsidies that are contingent upon either export performance or the use of domestic over imported goods are prohibited by the SCM Agreement because they are considered to necessarily have trade-distorting effects. The WTO provides for an accelerated

dispute settlement proceeding when only prohibited subsidies are at issue.²⁵⁸ To succeed with such a case, the complaining Member need only show that another Member maintains a subsidy contingent on either export performance or the use of domestic goods.

Prohibited subsidies may also be challenged in domestic countervailing duty proceedings as well as in WTO proceedings involving actionable subsidies. To succeed at the WTO in a case not limited to prohibited subsidies, the complaining Member must show that the subsidies at issue cause “adverse effects.” These adverse effects include both material injury to a competing industry in the complaining country -- which is the same standard employed by national authorities in antidumping and countervailing duty investigations -- and “serious prejudice.”

In a serious prejudice case, a WTO Member can succeed by showing that the subsidized goods have (a) displaced or impeded its products in the home market, (b) displaced or impeded its products in a third market, (c) led to significant price undercutting or significant price suppression, price depression, or lost sales in a market, or (d) caused the world market share of the subsidizing Member to increase for primary or commodity products.²⁵⁹ To date, there have been 6 WTO disputes under the serious prejudice provisions of the SCM Agreement: *Indonesia-Autos*, *Korea-Vessels*, *US-Cotton*, *EC-Large Civil Aircraft*, *US-Large Civil Aircraft*, and *China - Measures Relating to the Production and Exportation of Apparel and Textile Products*. The last one, brought by Mexico, is the only one to directly challenge Chinese subsidies programs. A decision by a dispute settlement panel is not expected in that case until late 2013 at the earliest.

²⁵⁸ See, e.g., *China - Grants, Loans and Other Incentives* (DS387, DS388, DS390) (settled without issuance of panel report).

²⁵⁹ See Article 6.3 of the SCM Agreement. In its report in *US-Cotton*, the Appellate Body confirmed that the term “same market” in Article 6.3(c) of the SCM Agreement can apply to either a national market or to the world market. *United States - Subsidies on Upland Cotton*, WT/DS267/AB/R, para. 406 (Mar. 21, 2005).

The following table shows WTO cases against China involving challenges under the SCM Agreement.²⁶⁰

Table 13: WTO Subsidy Cases Against China

Request for Consultation	Case Number	Case Name	Complainant(s)	Status
Oct. 15, 2012	DS451	China — Measures Relating to the Production and Exportation of Apparel and Textile Products	Mexico	In consultations
Sept. 17, 2012	DS450	China — Certain Measures Affecting the Automobile and Automobile-Parts Industries	U.S.A.	In consultations
Dec. 8, 2008, Dec. 9, 2008, Jan. 19, 2009	DS387, DS388, DS390	China — Grants, Loans and Other Incentives	U.S.A., Mexico, Guatemala	Settled
Feb. 2, 2007, Feb. 26, 2007	DS358, DS359	China — Certain Measures Granting Refunds, Reductions or Exemptions from Taxes and Other Payments	U.S.A., Mexico	Settled
Mar. 30, 2006, Mar. 30, 2006, Apr. 13, 2006	DS339, DS340, DS342	China — Measures Affecting Imports of Automobile Parts	E.U., U.S.A., Canada	Implementation notified by China

Source: World Trade Organization

In 2006, the European Union, United States, and Canada each filed complaints in *China—Measures Affecting Imports of Automobile Parts*, alleging that 3 GOC measures relating

²⁶⁰ There have been numerous challenges to Chinese government programs not involving claims under the SCM Agreement. These include: *China — Value Added Tax on Integrated Circuits* (DS309); *China — Measures Affecting the Protection and Enforcement of Intellectual Property Rights* (DS362); *China — Measures Affecting Trading Rights and Distribution Services for Certain Publications and Audiovisual Entertainment Products* (DS363); *China — Measures Affecting Financial Information Services and Foreign Financial Information Suppliers* (DS372, DS373, DS378); *China — Measures Related to the Exportation of Various Raw Materials* (DS394, DS395, DS398); *China — Provisional Anti-Dumping Duties on Certain Iron and Steel Fasteners from the European Union* (DS407); *China — Certain Measures Affecting Electronic Payment Services* (DS413); *China — Countervailing and Anti-Dumping Duties on Grain Oriented Flat-rolled Electrical Steel from the United States* (DS414); *China — Measures concerning wind power equipment* (DS419); *China — Definitive Anti-Dumping Duties on X-Ray Security Inspection Equipment from the European Union* (DS425); *China — Anti-Dumping and Countervailing Duty Measures on Broiler Products from the United States* (DS427); *China — Measures Related to the Exportation of Rare Earths, Tungsten and Molybdenum* (DS431, DS432, DS433); *China — Anti-Dumping and Countervailing Duties on Certain Automobiles from the United States* (DS440); *China — Certain Measures Affecting the Automobile and Automobile-Parts Industries* (DS450); and *China — Measures Imposing Anti-Dumping Duties on High-Performance Stainless Steel Seamless Tubes from Japan* (DS454).

to imported automobile parts violated China's WTO obligations.²⁶¹ These measures imposed higher tariffs on automobile parts that were incorporated into automobiles sold within China if the imported goods exceeded certain threshold volumes. In December 2008, the WTO Appellate Body upheld in part the Panel Report and found that the GOC measures violated Article III(2) and Article III(4) of the 1994 General Agreement on Tariffs and Trade ("GATT") by imposing internal taxes and discriminating against imports. Although the United States alleged that the measures also constituted export-oriented subsidies in violation of the SCM Agreement, the Panel declined to rule on that claim. On August 31, 2009, the GOC notified the WTO that it had implemented the WTO ruling by rescinding the offending policies, effective September 1, 2009.

The United States brought *China—Certain Measures Granting Refunds, Reductions or Exemptions from Taxes and Other Payments* in February 2007. The challenge related to "measures granting refunds, reductions or exemptions from taxes and other payments owed to the [GOC] by enterprises in China," alleging violations of Article 3 of the SCM Agreement on prohibited subsidies, Article III(4) of GATT pertaining to national treatment of imports, Article 2 of the Agreement on Trade-Related Investment Measures relating to national treatment and quotas, and various provisions of China's WTO Accession Protocol.²⁶² The United States then added the new income tax law to its complaint. The United States and Mexico each requested the establishment of a panel, but they settled their disputes with China in December 2007 and February 2008, respectively.

²⁶¹ "China—Measures Affecting Imports of Automobile Parts," available at http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds340_e.htm (WTO website).

²⁶² "China—Certain Measures Granting Refunds, Reductions or Exemptions from Taxes and Other Payments," available at http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds358_e.htm.

In *China—Grants, Loans and Other Incentives*, the United States, Mexico, and Guatemala each filed a complaint between December 2008 and January 2009 against GOC grants, loans, and other incentives that apparently benefited Chinese companies on the basis of their export performance.²⁶³ Several of these measures relate to the GOC policy of creating domestic brand names with international recognition. The complaints alleged that these measures constitute prohibited subsidies under the SCM Agreement, discriminatory measures against imports that violate GATT, and breaches of various provisions of China’s Accession Protocol. The parties to the dispute reached a settlement in December 2009.²⁶⁴

In September 2012, the United States requested consultations in *China—Certain Measures Affecting the Automobile and Automobile-Parts Industries*.²⁶⁵ The United States alleges that certain “grants, loans, forgone government revenue, the provision of goods and services, and other incentives contingent upon export performance” constitute GOC subsidies to manufacturers of automobiles and automobile parts that violate the SCM Agreement, GATT, and China’s Accession Protocol.²⁶⁶ The European Union has joined the ongoing consultations.

In October 2012, Mexico requested consultations in *China—Measures Relating to the Production and Exportation of Apparel and Textile Products*.²⁶⁷ Mexico alleges that the GOC

²⁶³ “China—Grants, Loans and Other Incentives,” available at http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds387_e.htm.

²⁶⁴ “Grants, Loans and Other Incentives,” available at <http://www.ustr.gov/trade-topics/enforcement/dispute-settlement-proceedings/china---grants-loans-and-other-incentives> (Office of the U.S. Trade Representative website).

²⁶⁵ “China—Certain Measures Affecting the Automobile and Automobile-Parts Industries,” available at http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds450_e.htm.

²⁶⁶ *Id.*

²⁶⁷ “China—Measures Relating to the Production and Exportation of Apparel and Textile Products,” available at http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds451_e.htm.

has violated the SCM Agreement, GATT, and China's Accession Protocol by providing subsidies to textile and apparel producers and exporters, as well as suppliers of cotton and chemical fibers. Mexico cites

tax exemptions for certain enterprises, reduction of import duties and VAT for purchase of equipment by certain groups of enterprises and those located in certain regions, measures contingent on use of Chinese goods and contingent on export performance, low cost loans by state-owned banks to certain industries, preferential land use rights, discounted electricity rates, support for production, sale and transportation provided to cotton farmers and the Chinese petrochemical industry, and cash payments from government agencies.²⁶⁸

Australia, Brazil, Colombia, the European Union, Guatemala, Honduras, Peru, and the United States requested to join the ongoing consultations with China but, in a very unusual move, China has so far refused to let them participate.

D. Antidumping Cases

Although not intended to address subsidization *per se*, antidumping remedies may be used to address situations where low-cost imports are causing injury to a competing industry producing a like good. Although antidumping investigations typically involve comparisons of the price of a product in the home and export market with adjustments to ensure comparability, there are special antidumping methodologies applied to countries that are considered to have non-market economies. For example, Brazil has traditionally used the price of the good under investigation in a third country to establish the "fair market value" of a Chinese export for comparison to the price of the like product imported into Brazil to determine whether dumping was occurring. If unfairly traded imports are causing injury to a domestic industry producing a like product, the domestic authorities may impose an antidumping duty on the imported goods in

²⁶⁸ *Id.*

order to remedy the injury. In recent years, Brazilian interests have brought a number of antidumping charges against products imported from China, most of them leading to the imposition of duties.

IV. CONCLUSION

This report presents a broad survey of Chinese industrial policies, the most recent national, provincial, and industry-specific five year plans, and the remedies that are available to Brazilian industries that are harmed by subsidized Chinese goods. Notwithstanding the adoption of market-oriented policies beginning in the late 1970's, the GOC continues, at all levels, to exert substantial influence over the industrial sector. The apparent subsidies for the industries covered in this report are substantial, and this subsidization has likely harmed competing Brazilian industries in both the domestic and export markets. Consequently, Brazilian companies being harmed by subsidized imports into Brazil should consider filing countervailing duty petitions with the Brazilian government. Brazilian industries being harmed by subsidized Chinese products in export markets should consider asking the Brazilian government to file appropriate challenges at the WTO in Geneva.