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Peter Thomas in der HEIDEN

Chinese Sectoral Industrial Policy Shaping International Trade and Investment Patterns – Evidence from the Iron and Steel Industry

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Title:

Chinese Sectoral Industrial Policy Shaping International Trade and Investment Patterns – Evidence from the Iron and Steel Industry

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Abstract:

In the three decades since China's economic opening to the world, the country's integration into the global economy has progressed by leaps and bounds. Especially after joining the WTO in 2001, international trade and investment flows have been on a steep upward trajectory. This process was not only driven by market forces but heavily influenced by government intervention in commodity and financial markets. While government authorities are strongly determined to promote closer economic integration with the rest of the world, they seek to supervise and control the process in order to carve out maximum benefits for domestic enterprises and the economy as a whole. Balancing market forces and industrial policy strategy, political decision makers have worked out an elaborate framework of measures to create an environment conducive to the development of several sectors deemed backbone or pillar industries. As one of them, the steel industry is subjected to numerous measures steering its development both in the home market and at the global market interface. By examining these mechanisms, this article aims to illustrate that sectoral industrial policy in China does not push for expanding exports and investments across the board but carefully and discretionarily promotes global integration in some areas while delaying it in others.

Keywords:

Economic integration, industrial policy, trade policy, trade restrictions, foreign direct investment, steel industry

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Content

1 Introduction

At the outset of the Chinese reform and transformation process three decades ago, the Chinese economy was one of the least integrated into the global division of labour. China hardly participated in the international exchange of goods and services and was hardly engaged in any cross-border capital flows at all. Since then, times have changed dramatically. China today is the largest exporting and second largest importing nation in the global economy (WTO 2010), a major host for international foreign direct investment (FDI) (2nd largest recipient) and the 6th largest source for outbound FDI (UNCTAD 2010). At the same time it is holding (excessively) high foreign exchange reserves with a high current account surplus feeding into the US-American Treasury bond market and therefore facilitating the circulation of US-dollar as the predominant form of international liquidity (IMF 2010).[1] As such China has become a highly important actor for the global economic system.

But does this outstanding role which China is playing in the global economic system correspond with an equally outstanding role of the global economy for the Chinese economy and do the patterns of China's integration into the global economy follow the rules and requirements of the markets? No doubt, FDI inflows have had a catalytic function for the kick-start of the Chinese economic 'miracle' and have subsequently provided important impulses for the perpetual upgrading of its industrial structures. At the same time export oriented development strategies have been the driving force of economic development in China's coastal belt providing jobs for hundreds of millions of people. As such integrating itself into the global economic system has been an important part of the recent Chinese growth story.

However, a closer look at the history and structures of China's global market integration shows specific patterns of varying intensities over different sectors and also different periods in time, i. e. development stages. The inflow of FDI has been directed (inter alia) by means of periodically adjusted investment guidance catalogues outlining specific sectors, industries and even products in which the attraction of foreign investment was and is encouraged, restricted or prohibited.[2] Trade flows have been (and still are) directed by an intricate set of tariff and non-tariff barriers as well as various forms of incentives by which Chinese government has been able to discretionarily steer the direction and intensity of goods flows. As such it is certainly not the (global) market alone that is determining the structures and intensity of China's integration into the global markets and their division of labour. Rather, Chinese economic and industrial policy, in particular, is playing a decisive role in the way Chinese economic subjects are interacting and competing on a global scale. And interestingly, seen from this perspective, China's integration into the global system does not present itself as a one-way street, leading towards greater and ever greater integration into the global system. Rather, a vacillating pattern emerges, where phases of higher intensities of global market integration alternate with such of an increased decoupling from global developments.

This paper takes a closer look at the way Chinese government is directing and regulating the global market integration of its economy by focusing on one specific sector: the iron and steel industry. It is structured as follows. Following the Introduction, section 2 will provide a brief outline of the dynamics of China's steel industry. Sections 3 and 4 will then showcase how government regulations have shaped the global integration of China's steel enterprises, with section 3 focusing on trade and section 4 targeting investment issues. The paper concludes with a summary of findings in section 5.

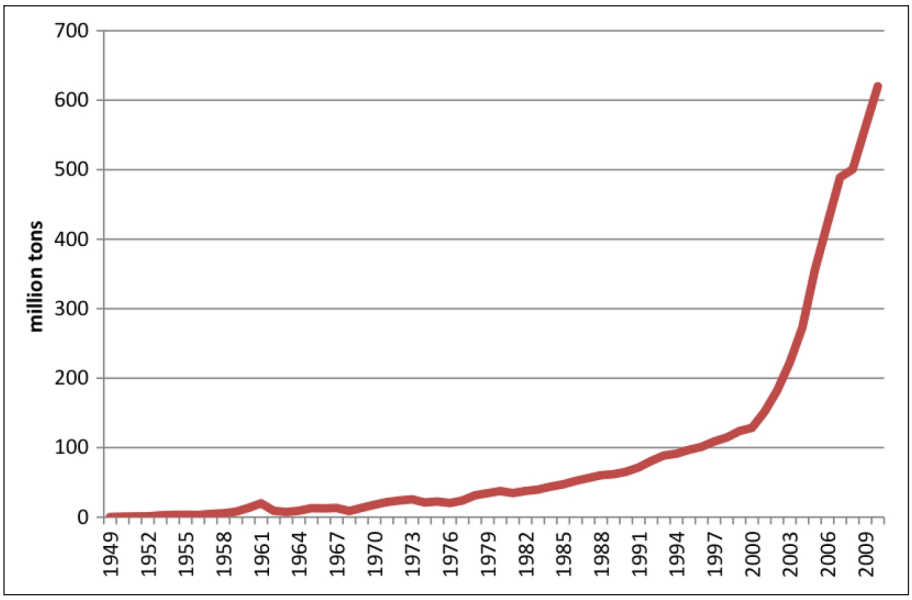
2 Setting the Scene: China's Iron and Steel Industry

Since the founding of the People's Republic of China, consecutive leadership generations have attributed great importance to the steel industry considering a large steel sector as a basic precondition for successful national development. After an attempt to rapidly increase steel output during the 'Great Leap Forward' campaign spectacularly backfired, leaving the Chinese economy in shackles, very slow pro-

1 All statistical data refer to mainland China, i. e. the customs territory of the PR China, excluding Hong Kong, Macau, Taiwan.
2 The first *Catalog of Industrial Guidance for Foreign Investment* has been published in 1995 and subsequently been revised in 1997, 2002, 2004 and 2007.

gress has been made before the onset of economic reforms. Since the founding of the People's Republic of China policy documents have repeatedly designated steel as a pillar or backbone industry (i.e. NDRC 2005). The appreciation for steelmaking has been expressed through various means of support and facilitated massive flows of investment and a spectacular capacity build up (Taube and in der Heiden 2009). Chinese steelmaking witnessed an unprecedented rise after the mid 1990s. Driven by nationwide urbanization and industrialization trends, output volumes skyrocketed without even falling back during the world financial crises. After surpassing Japan as the world's leading steel producer in 1996, volumes have continued to expand in a way that almost half of global steel output in 2009 took place in China (WSA various years).[3]

Figure 1: Chinese annual crude steel output since 1949



Source: World Steel Association.

However, this development should not obscure the fact that even during this boom period large parts of the industry continued to be plagued by the legacy of state planning. Large parts of the industry are still suffering from low efficiency, high pollution and backward technological capabilities (GOSC 2010). A major concern over the past decade has furthermore been the existence of huge overcapacities: While the Ministry of Industry and Information Technology (MIIT) predicts crude steel output to reach 620 million tons in 2010, it estimates that actual production capacities exceed 700 million tons (MIIT 2010). It is obvious, that the rapid expansion of Chinese steelmaking has neither followed a prescripted, elaborate path controlled by administrative planners nor been guided and disciplined by the full power of market forces but has at times rather taken on rather chaotic forms. The industry today can be characterized as a sprawl of roughly 800 smelting and well over 2,000 processing enterprises of different sizes, ownership types and technological capabilities. Political decision makers involved in shaping the institutional environment should also not be regarded as a unified bureaucracy with consistent goals and incentives. Instead, the wide geographical dispersal of steelmaking has given rise to localized development strategies and interregional barriers for trade and investment. To overcome these deficiencies, central government authorities are trying to enforce policies aimed at consolidating the industry by encouraging M&A and driving smaller plants with outdated production equipment out of the market (State Council 2010). Furthermore, they aim to improve technological capabilities and promote the formation of a small number of large integrated, internationally competitive steel conglomerates (CISA 2010, MIIT 2009).

China is a major importer and exporter of both steel products and relevant raw materials. Before the recent global economic downturn, the country was on a long term trajectory of export growth. In 2006

3 The dramatic cutbacks in most other countries around the world certainly contributed to this situation.

China became the world's leading steel exporter but lost the title to Japan again in 2009.[4] In the meantime, Chinese enterprises held a cumulative world market share of 12–15 percent.[5] While exports are an important aspect for some Chinese mills, their share in domestic steel production has never topped 12 percent which is a fairly low percentage compared to other major steel producing nations (WSA 2010).[6] Moreover, there is a huge discrepancy in the product categories China imports and exports. While imports are still made up of technology intensive wares, like electrical steel or galvanized sheet, exports mostly consist of medium grade products, such as hot rolled sheet or section steel. Correspondingly, the average cost per ton of imports and exports was US$ 1,181 and US$ 792 respectively for the first half of 2010 (CISA 2010).

With regard to foreign trade, government policy heavily emphasizes the concept of 'two markets and two resources'[7] as a source of advantage (e.g. NDRC 20005, MIIT 2009). Companies are asked to seize opportunities from leveraging procurement and sales both on the home market and abroad. While this is consistent with China's long-term objective to promote integration into the world economy, government policies rig the game by limiting exports of raw materials and low value added products while simultaneously promoting exports of high value added products. The export restraints for raw materials like coke and zinc, which are important inputs for steelmaking and finishing respectively, lead to a bottling up of resources on the Chinese market while at the same time reducing supplies on the world market. Due to the artificially created abundance and shortage situations, price differentials are bound to develop over time. The fact that China is the world's largest producer of both commodities further exacerbates this problem. Subsequently, the profitability of Chinese steelmakers is greatly supported by depressed input prices and export promotion for finished products overseas.

In recognition of the potential influence of the steel industry, the Chinese government is dedicating substantial resources to the monitoring and micro-management of China's steel industry's interaction with the global markets. These interventions on the one hand cover import and export transactions in the fields of relevant raw materials as well as steel products. On the other hand they target inward as well as outward directed foreign investment activities involving the steel and raw material sectors as will be shown below.

3 Trade

a) Imports of Raw Materials

Iron ore is the most important raw material for steelmaking: In 2009, 92 percent of Chinese and 70 percent of global steel production was based on smelting the mineral (WSA 2010). China possesses the world's fourth largest iron ore deposits and is the largest miner of the mineral producing 900 million tons – equivalent to 39 percent[8] of world output in 2009 (USGS 2010). The unabated steep rise in crude steel output over the past 20 years has driven China's mining industry to continuously expand operations, thereby vastly increasing the supply of domestic iron ore. However, while this process is still well underway, new mining projects have gradually become more demanding both technically and financially as remaining deposits get increasingly difficult to exploit. With domestic miners burdened by rising production costs and limited growth potential, Chinese steelmakers faced with escalating shortage and rising prices have long turned to the world market for their iron ore needs. Adding to the list of superlatives, China became the world's largest iron ore importer in 2003 and has kept the title ever since (Yu

4 Crude steel exports have topped off in 2007 at 63 million tons before falling back to 25 million tons in 2009 under the influence of the global economic crisis. In 2010, on the background of robust economic growth in China and spurred by the massive stimulus package as well as recovering export demand, crude steel output has recovered to 45 million tons. At the time of writing, it was not yet possible to calculate a global market share because reliable global output figures were not available.

5 In value terms.

6 In 2009, the US and Japan exported 21 percent and 42 percent respectively (World Steel Association 2010).

7 'Two markets and two resources' is a reference to domestic as well as international markets and resources.

8 Both figures are based on volumes. Adjusting for the generally low average FE-content of Chinese ores of 30 percent as compared to the 64+ percent averages for Australia and Brazil, the Chinese iron ore output share shrinks correspondingly. Still, China remains the world's largest if only by a small margin (USGS 2010).

and Yang 2010). By 2009, Chinese imports accounted for about two thirds of the total internationally traded iron ore both in terms of volume and value (Comtrade 2010, WSA 2010). At the same time the country depended on international deliveries for 69 percent or 630 million tons of the iron ore processed in its furnaces (People's Daily Online 2010). Due to the unrivalled dimensions of Chinese iron ore imports, world markets bore witness to dramatic increases in trade volumes[9] and price levels[10]. In order to ease the pressure on its steel mills, the Chinese government and the China Iron and Steel Association (CISA) in particular have launched a whole range of initiatives designed to create a Chinese buyers cartel and increase the negotiation power of Chinese enterprises vis-à-vis international iron ore miners and shipping lines (CISA 2009b).

Government authorities have blamed the large number of iron ore importers and the subsequently low degree of coordination for unnecessarily inflating import demand and driving up market prices (CISA 2009b). In order to tackle this structural problem, a series of measures for streamlining iron ore import operations has been introduced. In a first move, in 2005, a coalition of government agencies and CISA have compiled a catalogue of requirements Chinese enterprises would have to meet in order to qualify as iron ore importers. Based on this catalogue, a list of approved importers has been put together while all other enterprises were effectively barred from iron ore import transactions. Since then, the number of originally more than 500 qualified importers has been gradually cut to 112 companies – 70 of which are steelmakers – in 2009 (Hexun 2010). This import cartel stands to become even more exclusive since new standards introduced in early 2010 are intended to further reduce the number of enterprises. In order to maintain its import license, a company now needs to prove ore imports in excess of 1 million tons in 2009 (CISA and CCCMC 2010).

Tasked with supervising iron ore imports by central government authorities, CISA is in charge of several initiatives to consolidate and regulate iron ore import activities. In February 2009, the association launched a 'Convention for Enhancing Self-discipline in the Iron and Steel Industry to Ensure an Orderly Iron Ore Import Trade' stipulating that the whole of the industry be represented by a designated group of negotiators at the international iron ore price talks and mandating that the resulting price agreement be binding for all Chinese importers (CISA 2009a). This effectively forbids other interested parties to engage in their own price negotiations and strike a separate deal. Furthermore, the small number of steelmakers approved for ore imports may not purchase amounts in excess of their own consumption needs. Medium-sized enterprises and those importing less than 1 million tons per year are put at a disadvantage because they have to procure imported materials through an agency system forcing them to accept service surcharges of 3–5 percent. The large number of smaller players which are due to lose their production license based on a host of industrial policy guidelines of recent years are cut off from the supply of imported materials completely (CISA 2009a). This system is complemented by a barrage of monitoring, control and supervision mechanisms that are intended to stall any kind of circumvention attempt. While the system is tilted in favour of the relatively small group of large integrated state-owned enterprises and clearly discriminates against smaller players, it mostly aims to limit overall import volumes and strengthen China's bargaining power in price negotiations (CISA 2009a). It can be argued that in both regards it has a potentially significant effect on market outcomes for global iron ore trade. For the lack of a counterfactual, however, it is difficult to assess the extent to which this initiative has actually cut import volumes or impacted on prices.

While the idea of pooling demand in order to increase negotiation power vis-à-vis suppliers is certainly a strategy that is not in conflict with regular market behaviour, what is striking in the Chinese case is the state-led organization of such an import cartel on the one hand and the obvious neglect of the competitive juxtaposition of steel mills in the specific regions on the other hand. Given a normal market framework and intensive competition as should be expected in a sector featuring massive overcapacities, the question arises if individual companies would not rather try to 'go alone' and derive competitive advantages from better import prices than their local contenders? Especially the larger corporations designated

9 52 percent of worldwide iron ore outputs were exported in 2009 (World Steel Association 2010).

10 The price per ton increased roughly six fold: from about US $ 28 in 2000 to US $ 174 in late 2010 (World Bank 2010 and Bloomberg 2010b).

to conduct the negotiations for the whole group could be expected to profit from separated negotiations. Given their size and corresponding import demand these companies could be expected to negotiate better prices than their local contenders and therefore come into a position to improve their competitive positioning vis-à-vis the latter – up to a stage where they could drive these underperforming companies out of the market and thereby contribute to a much needed consolidation of the industry as a whole. Obviously, in their efforts to improve the 'well-being' of the national steel industry as a whole, China's administrators are still trusting more in their skills to steer developments by discretionary interventions than in the self-regulating power of competitive markets.

b) Imports of Finished Products

Chinese steel imports have traditionally been dominated by high valued added goods. This trend has not yet been broken with electrical steel or coated sheets playing a major role (CISA 2010). After its accession to the WTO in 2001, China markedly lowered import tariffs on steel products and largely complied with WTO obligations. Except for repeated calls from government agencies or the government directed CISA to downstream industries encouraging them to favour domestically produced steel over imports, no significant market intervention can be found. Since steel is regarded as a key ingredient for economic development, governments on various levels have dedicated resources to help domestic steelmakers ramp up production volumes, improve quality levels and bring down costs for inputs and utilities. However, it can be argued that assistance in the form of direct subsidies, policy loans, tax benefits or preferential access to vital inputs, energy, water, transportation infrastructure etc. has contributed to the massive output increases of recent years and thereby greatly diminished import demand (Taube and in der Heiden 2009). Following this line of reasoning brings up two questions: Firstly, would the Chinese economy have generated the same level of steel demand absent substantial domestic production capacities? And secondly, would the world market be able to supply enough steel products to accommodate a hypothetical Chinese import dependence similar to that of other major steel producing countries like the United States? Considering the fact that China's share of global steel consumption has soared for two decades and has almost hit the 50 percent mark in 2010, the second questions would have to be negated. In 2009, China has consumed a total of 564 million tons of steel, 96 percent of which were domestically produced (WSA 2010). Based on the 2009 numbers, even a modest rise in import share of a single percentage point would have entailed additional shipments of 5.6 million tons. Bringing the share all the way up to 25 percent – the level of the United States – would have put China in a position to capture 44 percent of globally traded steel products (WSA 2010). The latter case would also have put major strain on the global steel market implying momentous distortions of international production and consumption patterns and steep price increases for finished products. While a slightly slower pace of capacity expansion would have avoided the problem of overcapacities, a severely lagging development would have dampened the prospects of China's overall economic development, in turn depressing (import) demand.

c) Exports of Raw Materials and Semi-finished Products

Even after China's WTO accession, government authorities have actively discouraged the export of certain raw materials (like coke), semi-finished products (e.g. billet, slab) and products in the first stages of processing (e.g. hot rolled sheet / coils). Government officials argue that measures to curb outflows of low value added materials should serve the conservation of precious natural resources and keep domestic energy consumption, environmental pollution and greenhouse gas emissions in check (GOSC 2010, MIIT 2009). As for the case of coke, these objectives may be well in line with public interest in a country that already suffers from serious environmental damage, energy shortages and heavily relies on burning coal (a major input for the coking process) for electricity generation and heating such as China.[11]

But the whole extent of trade constraints suggests that there are other goals involved as well, notably the creation of a significant price differential for domestic and international consumers of coke and other

11 Note: It has to be differentiated between coking coal, a bituminous kind of coal with a certain content of moisture, ash, sulfur and other components, and coke, the product of heating coking coal in batteries at temperatures over 1,000 degrees Celsius for up to 36 hours in order to drive off volatile contents.

materials. Bottling up vital inputs for steelmaking inside the Chinese market works to increase domestic supply and depress input prices for Chinese steel producers. At the same time, cutting down the export volume reduces the supply of these resources on international markets and thus functions to keep world market prices (and costs of international steel producers) artificially high – in comparison to a free trade, open markets scenario.

Currently, Chinese government authorities are employing five separate mechanisms to either discourage the exportation of certain goods or ensure their outflows come about at very favourable terms for the exporting company and the government budget. These are (1) export licensing, (2) export quotas, (3) export taxes, (4) cancellation of VAT rebates on exports and (5) export price coordination. In the following we will give an outline of these restraining mechanisms using the case of coke.[12]

Endowed with large coal deposits, China has evolved to become the world's leading coke producer (USGS 2010). With an output of 353 million tons in 2009, it accounted for 60 percent of global output in 2009 (China Coal Resource Net 2010). Not surprisingly, the country also used to be the material's largest exporter: Before the recent crisis wreaked havoc on global trade China shipped out 12 million tons in 2007, giving it a market share of 47 percent in volume terms and 41 percent in value terms (Comtrade 2010, Sun and Xu 2009). This situation changed dramatically in 2009 when export volumes dropped by 96 percent compared to the previous year (GAC 2010).[13] Although some part of the collapse can be explained by easing demand, this paper argues that primarily export restrictions are to blame.

China – like many other countries – maintains an **export licensing system** which mostly serves to monitor cross-border trade of commodities and finished products. In theory, the effect of export licensing on trade depends on the degree of intervention and selectivity. In the ideal (free markets) case, licenses will be issued automatically and without any kind of meaningful administrative procedure directly upon shipment since this will cause the least disruption to international trade flows. The worst case from this perspective is a situation where companies are held up by lengthy, costly or arbitrary administrative procedures.

Since China reserves itself the right to restrict or prohibit the export of certain goods it also employs the export licensing scheme as basic supervision and control mechanisms to enforce these trade restrictions. As the agency responsible for the program, the Ministry of Commerce (MOFCOM) is tasked with drawing up relevant regulations and supervising their implementation. MOFCOM entrusts the Quota Licensing Bureau (QLB) with the detailed oversight and inspection of all license issuing agencies nationwide (MOFCOM 2008). According to China's International Trade Law, the General Administration of Customs (GAC) and MOFCOM together compile, adjust and publish lists of goods that can only be exported after its previous and explicit approval. The International Trade Law also authorizes MOFCOM to investigate and punish companies, individuals and even government organizations which are violating its regulations, e. g. by exporting without a license or outside the scope of the license or by issuing licenses to unqualified companies. Possible administrative sanctions include the suspension or revocation of a company's right to engage in foreign trade activities for up to three years while individuals may face criminal charges.

In most cases, companies applying for export permits are required to submit an application form (stamped or sealed) together with a copy of the export contract and several other relevant pieces of documentation (depending on the nature of the product) for examination by an authorized licensing agency. The agency will then determine if the proposed export deal is in compliance with national rules and regulations, if all submitted documents are complete and valid and if the applicant company possesses sufficient management expertise to successfully carry out the transaction (MOFCOM 2008). Especially the final point invites a degree of arbitrariness into the process. Once granted, export licenses are valid for a period of up to six months which may not begin prior to January 1st and will automatically expire at the end of the calendar year regardless of the time of issuance. Besides imposing time constraints on export-

12 Coke serves as a reducing agent for smelting iron in a blast furnace and is an essential ingredient for steelmaking.

13 China's share of the global coke market subsequently plummeted to 7 percent and 4 percent in volume and value terms respectively.

ing enterprises, the licensing scheme can also force companies to declare export goods at one particular customs office or ship their total export volume in a single batch (MOFCOM 2008).

In May 2007, at a time of particularly fast export growth, MOFCOM and the GAC introduced an export licensing system concerning low value-added steel products, like rebar, wire rod, plates, narrow strip as well as several section products while more advanced product categories like the majority of cold rolled sheet, galvanized products and all pipes were exempted (MOFCOM and GAC 2007). This indicates that Chinese authorities aimed selectively at controlling – and if necessary curbing – low end materials while leaving the more technology intensive goods unaffected. The system included only a simple company registration process and did not involve elaborate application and examination procedures. At the time of introduction it covered product categories that had previously accounted for almost half of total export volume in steel products. By the end of 2008, when global market demand began to decline in the early phase of the global economic downturn, the export licensing system was terminated (China Mining 2009). While in operation, this system has caused few distortions on market dynamics nor did it discriminate against specific companies on the grounds of size, ownership-structure or other criteria. But not all export licensing schemes are as non-discriminate and transparent. In which direction the system could have evolved if a reduction of export volumes would have come up on the agenda of China's administrators can be observed with respect to other Chinese export goods subjected to non-automatic licensing schemes. Practices employed here include specific eligibility threshold levels like export performance, financial capabilities, as well as the filing of detailed application documents, bidding processes, etc. (USA 2010).

The administrative procedures introduced by non-automatic licensing are an important institutional foundation for the imposition and administration of **export quotas** on a variety of goods. China's International Trade Law designates MOFCOM as the agency responsible for administrating export quotas. As such, the ministry determines total quota amounts for different goods, evaluates individual quota applications and allocates quotas to specific companies (MOFTEC 2001, MOFCOM 2008). Though coke exports have been subjected to quotas for many years, only after they were cut by 25 percent in 2004, has the issue attracted increased attention. But MOFCOM does not announce total annual export quotas for coke in advance. Instead, the ministry typically issues two notices a year that list approved companies with their respective quota allocations. Consequently, the total quota amount for one year can only be calculated ex-post by adding up the individual amounts as issued in the notices published during that year. For individual enterprises this practice entails substantial planning insecurity and business risk.

Companies wishing to export coke have to file an application with the commerce administration of their province before October of the previous year. Commerce authorities will then conduct an initial review based on a comprehensive set of requirements that companies need to meet in order to qualify as coke exporters. The list of criteria – which is compiled at the central government level by MOFCOM – is exhaustive and has been amended a number of times to raise the admittance threshold. Coke producers for example have to prove they are properly registered with all relevant government authorities and have a license to conduct international trade. Moreover, they must have exported at least 250,000 metric tons of coke in 2008 or an annual average of more than 200,000 tons between 2006 and 2008 (MOFCOM 2010). They need to be ISO 9000 certified, need to follow their obligations as regards contributions to the social security system, need to meet environmental protection standards and must not have violated any national laws or regulations. Requirements for trading companies while broadly similar show one major addition: applicants must have a registered capital of at least RMB 50 million. In all, companies have to submit a large number of official documents issued by different government agencies to prove they meet all relevant criteria. Once provincial commerce authorities establish that a company can satisfy all criteria, they forward the full set of application documents together with their assessment to MOFCOM in Beijing (MOFCOM 2010). A copy of these documents is sent to the China Chamber of Commerce of Metals, Minerals and Chemicals Importers and Exporters (CCCMC), a privately organized representative association of over 4,200 industry members which serve to overseas that supports and coordinates export activities of Chinese companies and improves their competitiveness in world

markets.[14] MOFCOM entrusts the CCCMC with conducting a second round of examination of applicants' eligibility for quota allocations. Based on the CCCMC's final assessment, MOFCOM will publish the list of qualified coke exporters on its website (MOFCOM 2010). In a second step, MOFCOM will allocate quota amounts to individual companies based on a formula which is not publically available. While this procedure is reserved for Chinese companies, foreign invested enterprises (FIE) have to follow a separate but largely similar application process involving a separate set of qualification criteria (USA 2010). Since quota certificates are valid for one year only, companies have to undergo this process year after year to keep up their export business. Naturally, the incentives to circumvent this arduous application procedure are substantial but the penalties for non-compliance with quota regulations are daunting and largely identical to the ones for violating export licensing regulations (see preceding section).

The increasingly stringent requirements for obtaining quota allocations (MOFCOM various years) and the administrative hurdles complicating export transactions combined to bring down the number of approved coke exporters from 70 in 2006 to 34 for 2011 (with an additional 21 applications still pending in December 2010) (MOFCOM 2010). However, the total annual quota volume for coke has remained within a narrow range of 13–14 million metric tons since 2006 effectively boosting the individual quota allocations. It should be highlighted that approved coke exports account for only a small fraction of total Chinese coke output of about 350 million tons in 2009 and 2010.

Export restrictions on coke have led to irritations between China and other countries, like the USA which have in the past procured substantial amounts of coke 'made in China'. The 2007 National Trade Estimate Report on Foreign Trade Barriers compiled by the United States Trade Representative (USTR 2007) outlines that export restrictions have a significant adverse effect on US integrated steel producers and their customers, as China's tight export restrictions have pushed up export prices. After a series of meetings in which the United States urged China to eliminate the practice of using export restrictions, not just for coke but also for other products, in May 2005 the NDRC announced the cancellation of the coke export quota system as of January 1, 2006 (USTR 2007). But it was not meant to be. The decision was revised and the quota system stayed in place although with a raised quota of 14 million metric tons for 2006. Until today, the export quota keeps international coke prices high and ensures that coke prices in China remain significantly below world market level. By the time of writing, the export quota system was still in force and there had been no indication of when it might be eliminated.

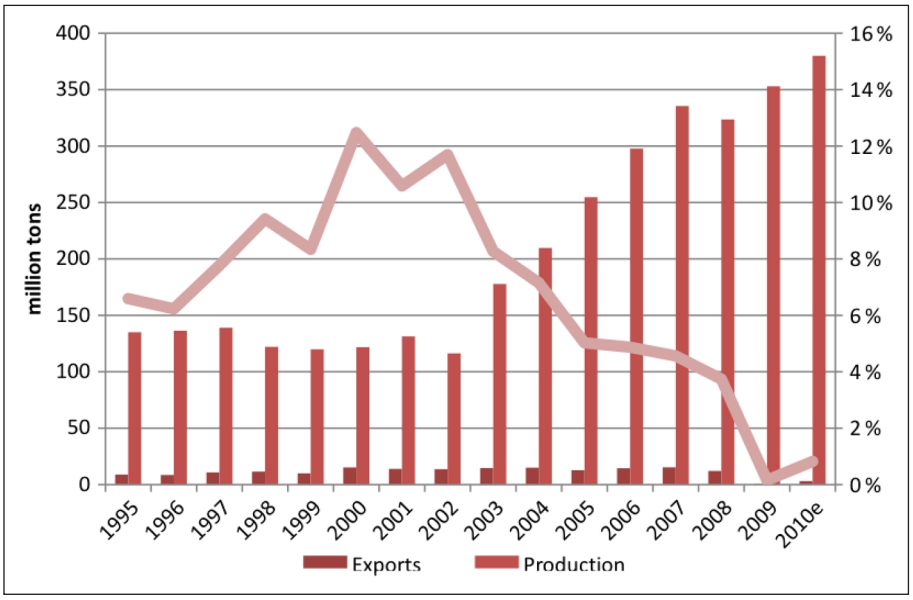
Chinese **export duties** take the form of ad valorem taxes levied upon exportation of certain goods. In some cases, like coke, duties are combined with export quotas to amplify the restricting effect. According to Chinese Regulations on Import and Export Duties, either shall be imposed on any good upon entering or leaving the country unless decided otherwise by the state council (State Council 2003). There are two government agencies trusted with administering import and export duties: The Customs Tariff Commission is mainly in charge of determining which goods are subjected to duties and adjusting relevant duty rates (State Council 2003). The GAC is tasked with the actual supervision and control of goods entering or leaving the country. As such, it collects duties as well as other charges related to goods crossing the border into or out of China. It should be noted that, apart from coke, other raw materials related to steelmaking, like zinc, are affected as well (USA 2010).

As early as November 2006, the Chinese government has imposed export duties of 5 percent on coke. Duties were gradually raised to 15 percent in June 2007, to 25 percent in January 2008 and finally to the current level of 40 percent in August 2008. Addressing the various steps, government authorities have argued that a rebound of coke exports had to be prevented. Considering that export volumes had been already capped by export quotas as outlined earlier in this paper, the official line of argument is hard to follow. Price and Nance (2010), comparing the development of coke prices for domestic consumption and export, find that a large gap had formed between during 2007 and 2008. While there was no price difference to speak in January 2007 with one ton of coke for both domestic consumption and exports costing about US$ 150, until December 2008 coke prices for domestic consumption had risen to about

14 Companies owned by the central government will submit their applications to MOFCOM directly and send a file copy with the CCCMC.

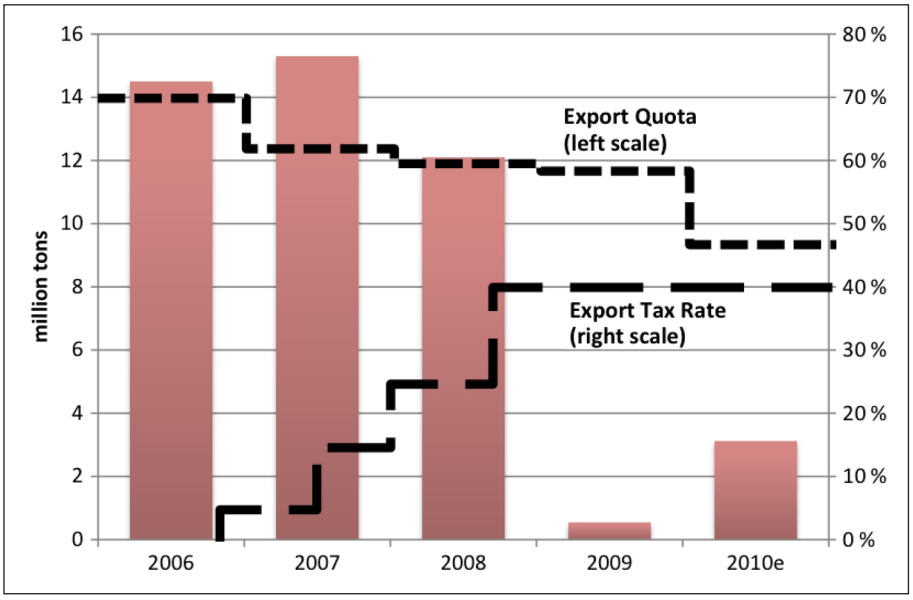
US$ 200 while export quotations exceeded that by US$ 241. The resulting price difference conferred a discount of more than 50 percent upon domestic coke users. Assuming an average input ratio of 0.6 tons of coke per ton of crude steel (World Coal Institute 2007), the benefit in input costs per ton of crude steel that could be claimed by Chinese steelmakers was US$ 400. This is a very sizable advantage considering that in December 2008 the average sales price per ton of hot rolled sheet in the Chinese market stood at about US$ 550 (Bloomberg 2010b). Figures 2 and 3 illustrate the effect of export restrictions on Chinese coke exports.

Figure 2: Production, exports and export ratio of coke



Source: National Bureau of Statistics of China.

Figure 3: Chinese coke exports and related restrictions



Source: National Bureau of Statistics of China; MOFCOM.

In 1994 China has introduced a **value added tax (VAT)** that is levied on producers upon sales of nearly all goods and services. Rates vary depending on product category and amount to 17 percent for steel products and most resources. While imported goods will be subjected to the tax, exports are partially exempted. This is intended to avoid disadvantages for Chinese exporters competing on foreign markets

that are not subject to VAT (HKTDC 2009). However, VAT exemptions for exports do not apply uniformly to all goods but are administered on a product-specific basis as a way to support Chinese industry policies. Following this logic, tax and customs authorities have gradually reduced or even cancelled VAT rebates to discourage export of certain goods over the past years (Ernst & Young 2007). As a matter of fact, rebates for both coke have been abolished. The same is true for semi-finished steel products like billet and slab. This shift in trade policies has led to a sharp drop in export quantities (if export volumes were not already limited by quotas) and a domestic price level which is lower than it should be under normal circumstances. Limiting the outflows of billet and slab has two effects which are in line with China's industrial policy framework for the steel industry. Firstly, downstream production processes can benefit from cheaper access to an important input. Though large integrated steel mills usually don't purchase billet from the market but rely on the output of their own converters instead, many rolling mills that do not possess their own steel smelting capacities are depended on the market availability of this semi-finished product. Thus, reduced price levels will eventually show a positive effect on the steel rolling and processing business. Secondly, market potential and profitability of upstream producers is largely reduced, paving the way for industry consolidation. While basic steel smelting is a fairly low value added and low tech activity as compared to finishing processes downstream, it consumes large amounts of resources and energy and puts severe strain on the environment through pollution and greenhouse gas emissions. To remedy an industrial layout featuring a large number of small scale enterprises employing basic production technology, the government actively supports industry consolidation characterized as the crystallization of a small number of large integrated enterprises that possess strong technological capacities and international competitiveness. This approach specifically aims for crowding out small, inefficient players of the market (GSOC 2010, State Council 2010).

A similar development strategy as in the case of coke can also be observed with respect to billet and hot rolled strip. The latter is a fairly basic steel product which is commonly used as input for making more sophisticated goods. For rolling mills which produce cold rolled sheet (CR sheet), hot-dip galvanized sheet (HDG sheet), welded tubes and many other goods, HR strip is the single most important input – both in technical and in financial terms. In other words, the cost of making or buying HR sheet usually determines the mills' profitability.

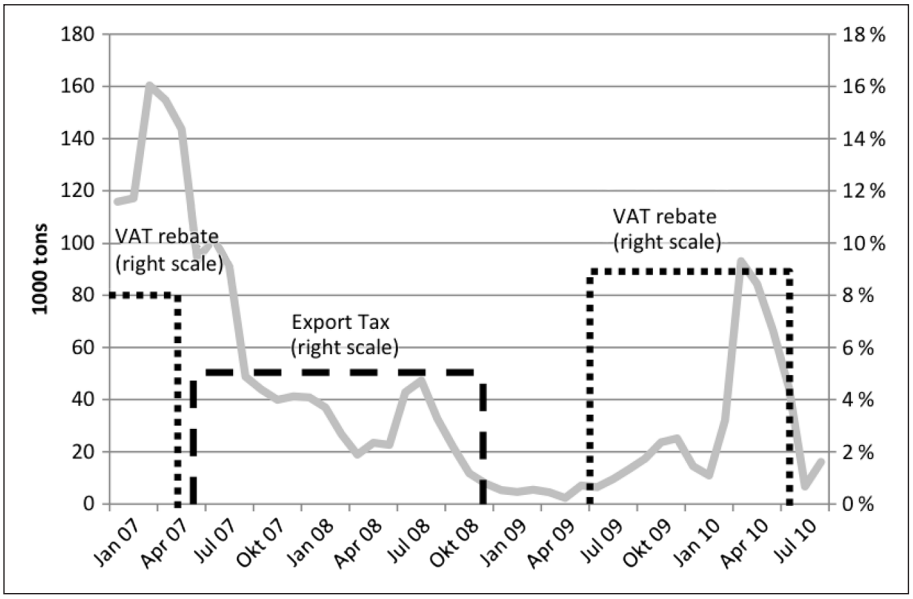
In its 2007 Hot Rolled Sheet Reinvestigation Memorandum, the Canadian Border Services Agency (CBSA) comes to the conclusion that domestic HR sheet prices in China are largely determined by the government and are not substantially the same as they would be if determined by a competitive market environment. The document cites various news clips and reports that point out the strong government intervention in the Chinese steel industry. The investigation identified instruments of government influence in the Chinese steel sector that have also been documented in the preceding sections of this article (CBSA 2007).

In the years preceding the world financial crisis, the Chinese government has resorted to VAT rebate adjustments in order to put an end to soaring exports of HR strip (and sheet). Step by step, rebates were cut from 11 percent in 2006 to zero in April 2007. Government officials have explained that through imposing these measures, they wanted to better control production and exports, prevent more trade disputes, phase out inefficient capacities, cut down energy consumption and protect the environment. The diminished profitability of international sales effectively reduced the outflow of HR strip and increased supply in the domestic market entailing a price depressing effect (see Taube and in der Heiden 2009).

When the shockwaves caused by the global economic downturn reached China in 2009, the country's steel industry was under severe stress to cope with faltering demand and depressed prices. As a way to support ailing steelmakers, the central government opted for a reinstatement of export VAT rebates on HR products in the order of 9 percent in June 2009. Consequently exports rebounded since Chinese-made HR sheet regained competitiveness in major export markets, like South Korea (see Figure 4). As China and the world economy gradually turned toward economic recovery, exports soared again which inspired the government to once again terminate VAT rebates on HR strip in July 2010.

This brief history of adjustments illustrates that the Chinese government considers VAT rebates a legitimate and effective tool to steer exports in ways conducive to its industrial policy framework. This

Figure 4: Exports of hot rolled strip and related export restrictions



Source: National Bureau of Statistics of China, MOFCOM.

notion is supported by the fact that export restrictions did not target the more advanced downstream products like cold rolled sheet or galvanized sheet in the same way. Steel mills are still entitled to receive a VAT rebate of 9 percent on exports of high grade CR sheet and HDG sheet.

While the mechanisms described so far were mainly intended to curb exports, mandatory **export price coordination** – which can be equated to setting a minimum price for exports – also serves to maximize the gains from exports. Access to detailed information is complicated because relevant documents are not in the public domain. As a major difference compared to the other tools described earlier, the coordination of export prices is largely run by the China Chamber of Commerce of Metals, Minerals and Chemicals Importers and Exporters (CCCMC), a privately organized representative association of over 4,200 industry members. Founded in 1988, CCCMC originally served to coordinate export activities of Chinese companies and improve their competitiveness in world markets. Today the chamber defines itself as a comprehensive service provider to its member (CCCMC 2010). According to the self-introduction found on the CCCMC website, services include:

> 'coordination service in metals, minerals, chemicals exports, coordination service in bidding commodities, organization service at the Chinese Export Commodities Fair, organizing response to anti-dumping lawsuits, verifying export prices for customs clearance [sic], Internet information service, overseas exhibition & training service.' (CCCMC 2010)

But CCCMC does not conform to the western understanding of industry associations as being platforms to organize and represent private interests vis-à-vis government authorities (USA 2010). Instead, CCCMC – like other chambers of commerce in China – has assumed some regulatory power and responsibilities from state organs (in this case MOFCOM) to support the implementation of their industrial strategies and engage in active supervision. As such, CCCMC is under the authority of MOFCOM and acts on behalf of the latter. Several sub-organizations are in charge of coordination activities regarding various commodities like coke and zinc (USA 2010). These units are authorized to audit member companies in order to assess their compliance with coordination programs and set penalties for violators.

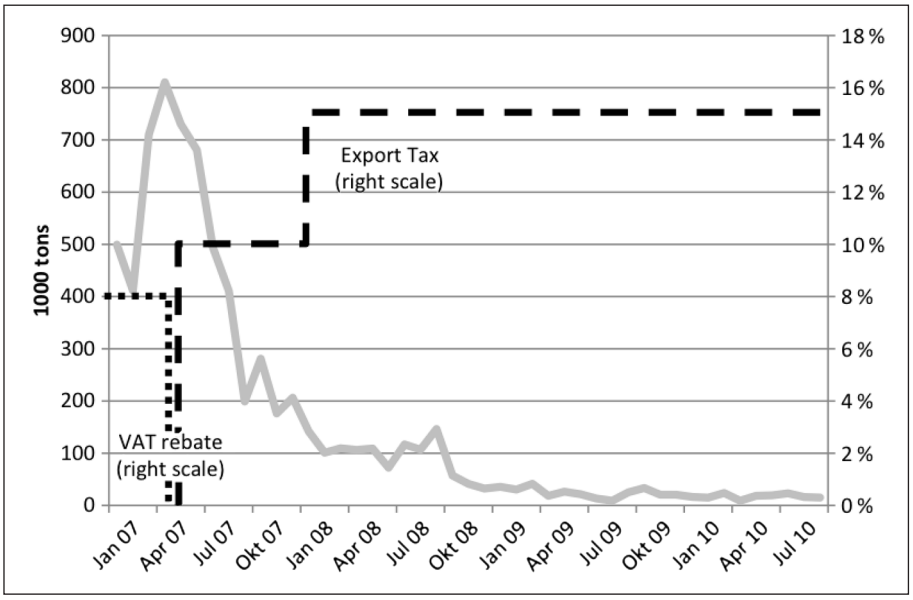
d) Exports of Finished Products

Chinese steel exports have only picked up after China's WTO entry. Since 2006, it has remained a net-exporter of steel in volume terms. After a strong but unsteady rise in the years preceding the world economic crisis, export volumes topped off at 63 million tons in 2007 (WSA 2010). Exports are dominated by medium and lower product ranges with long products accounting for the largest share (EDRCMI va-

rious years). The Chinese government is promoting export activities on a highly selective basis, targeting high value-added, technology intensive products as the vanguard of China's steel exports. Specific measures include the rebate of a large part of the VAT paid. This is meant to offset competitive disadvantages in international markets[15] and allows for a discretionary steering of export activities. These rebates may be coupled with income tax reductions if exports surpass 50 percent of a company's total sales volume. Further measures comprise preferential export loans and guarantee schemes provided by the Export Import Bank of China (EXIM Bank) as well as other state-owned financial institutions (see Taube and in der Heiden 2010 for details).

As outlined in the preceding section, **VAT rebates** and **export quotas** are employed by Chinese government as highly flexible instruments for discretionarily steering corporate export activities. These measures are commonly used to promote exports of higher value added products and discourage exports of resource intensive but low tech products, such as rebar. If deemed necessary, e. g. due to changing market conditions or escalating trade frictions, rebates and quotas can be adjusted on short notice in order to strengthen or weaken export incentives. This way, Chinese authorities are also capable of influencing the composition of steel exports and pushing companies to shift their export portfolio towards more high value-added, technology intensive products. Figure 5 illustrates the effect of export restrictions on outflows of low end products, such as rebar.

Figure 5: Exports of rebar and related export restrictions



Source: National Bureau of Statistics of China, MOFCOM.

Besides fiscal measures to manipulate export activities, **directed bank lending** also plays an important role (MIIT 2009). Some state-owned banks which have become shareholders of Chinese steelmakers through debt-to-equity swaps in the years preceding China's accession to the WTO also have a strong interest in supporting the steel industry in its efforts to get a foothold on the international markets (World Bank 2000, People's Daily Online 2000).

'The EXIM Bank has been created 'a state policy bank under the direct leadership of the State Council' with the mandate 'to implement the state policies in industry, foreign trade and economy and finance to provide policy financial support so as to promote exports [… and to] support Chinese companies with competitive advantages to 'go global' for offshore construction contracts and overseas investment projects.' (MOFCOM 2006). In 2004, for example, the bank signed a 'Cooperation Agreement of Export

15 As most nations grant a 100 percent refund of VAT paid for goods that have been exported, Chinese producers are not entitled to full VAT refunds by the Chinese government and subsequently end up with a cost disadvantage vis-à-vis their foreign competitors.

Credit Loans to Support International Business' with Baosteel, pledging RMB 10 billion in export credit loans with low interest rates and long-term maturity to help the enterprise develop internationalized business (International Finance News, September 10, 2004). Guangdong Shaogang Songshan Co., Ltd. in 2005 received interest discounts worth RMB 576,389 as a gratification for its successful export activities (Guangdong Shaogang Songshan Co., Ltd. Annual Report 2005).

Rapidly rising Chinese exports both before and after the world economic crisis have led to tensions with major trade partners, notably the European Union, the United States and Canada but also a number of developing countries. After numerous studies and countervailing duty investigations have identified government subsidy schemes supporting Chinese steelmakers to compete in the global arena (see Taube and in der Heiden 2009 for details), CISA and leading decision making bodies in China's steel community are very much aware of the fact that the Chinese export offensive in the OECD economies of Europe, North America and South Korea is causing uneasiness in these countries and raises the 'danger' of trade measures against China designed to correct the non-market based cost advantages of Chinese exporters. Luo Bingsheng, CISA executive vice president, for example, has been quoted by the Chinese news agency Xinhua as urging 'Chinese steel producers and dealers to curb exports at certain periods to avoid dumping charges.' (Xinhua, August 2, 2006) This statement is but one example of how government authorities and CISA, as a kind of supervisory organization, signal domestic steelmakers the current political 'guiding opinion' towards certain aspects of global market integration and outline the range of 'politically correct behaviour'. Furthermore, such statements are often accompanied by actual policies directly intervening in the incentive systems determining the behaviour of exporters.

This section has illustrated that while economic policy makers in China are determined to increase international integration of their domestic steel industry through trade, they reserve themselves the right to steer the depth and direction of this process. Clearly, Chinese enterprises are discouraged and sometimes forbidden to compete on the low end of the international market while for those who are able to target the high end, obstacles are few and far between. Political measures governing international trade integration are highly discretionary. By artificially depressing the domestic price of an important input resource, hot rolled sheet, and, simultaneously offering export incentives for finished products, the authorities are effectively stimulating outflows of high value-added, high-tech steel goods like cold rolled sheet or hot-dipped galvanized sheet.[16] As such the Chinese government is distorting the inter-sectoral market structure as well as China's export composition. Seen from a macro-perspective, it is directly intervening in the 'natural' domestic as well as international market development.

4 Investment

a) Inward Foreign Direct Investment

With respect to the treatment of foreign investors, the Chinese government is following a two-pronged strategy, trying to strike a balance between both the need to attract investors in order to get access to superior foreign technology, management skills and business models on the one hand, and the fear of a sell-out of national assets and foreign domination of the domestic steel industry – which is defined as a strategic pillar industry – on the other hand.

The Catalogue for the Guidance of Foreign Investment, which is updated at irregular intervals and provides for encouragement as well as restrictions for foreign investors depending on parameters like product category, technology content, export orientation, etc. has been of specific importance for guiding foreign investment in China's steel industry especially in its 1997 edition (NDRC and MOFCOM various years).[17] Since then, the Catalogue has lost in importance for the steel industry and has been replaced

16 Interestingly, Chinese government authorities are implementing a combination of product-specific, regional-specific and sometimes even company-specific measures which sometimes appear to be redundant. However, given the realities of the Chinese iron and steel industry's set-up, this may be the only way to achieve the supreme objective of making the domestic steel sector internationally competitive.

17 The latest edition of the catalogue in place since December 1, 2007 does not contain any specific references to steel industry relevant investment fields.

by specific local regulations as well as the Iron and Steel Industry Development Policy (ISIDP) published in July 2005 (NDRC 2005).

With respect to the intention to attract technologically advanced investment projects, the ISIDP provides detailed information on technologies China wishes to attract as well as the ones which are discouraged. In addition, the ISIDP (Art. 23) clarifies that only experienced enterprises with a formidable track record of successful business operations will be allowed to invest in China. In order to become eligible to apply for an investment project in China, foreign investors must:

> 'possess iron and steel technology with independent intellectual property rights and should have produced at least 10 million tons of carbon steel or at least 1 million tons of high-alloyed special steel in the previous year.' (ISIDP, Art. 23)

With these entrance requirements, the Chinese government openly discriminates against foreign investors who face tougher entrance barriers than domestic investors. Domestic investors who plan investment projects in the fields of iron making, steel making or steel rolling need to fund 40 percent of the total equity by themselves, meet all requirements laid out in various laws and regulations on environmental protection, ecology and production security, possess financial strength, advanced technological and managerial know-how and command a complete sales network. If a Chinese steel company wants to expand across administrative regions inside China it also needs to prove that it had owned capacities for smelting 5 million tons of carbon steel or 500,000 tons of special steel in the previous year. In any case, domestic investors are not required to possess their own technology. Moreover, for a foreign company, capacity thresholds are twice as high as for domestic companies.

At the same that China is courting (and sometimes prodding) foreign investors to transfer their latest technology to China and make it available to the local steel industry, China rejects the request of foreign investors to pursue wholly foreign owned greenfield investments or to acquire majority or controlling stakes in Chinese steel enterprises. As such, foreign investors are forced to forge joint ventures with Chinese partners if they wish to enter the Chinese market.

All foreign investment activities (greenfield as well as M&A transactions) must be approved by the NDRC, which consults CISA and the leading (local) steel enterprises in the course of the approval process. Leading representatives of CISA have made it crystal clear that they do not intend to grant foreign investors a dominant role in individual steel joint ventures (except for very specific reasons in peripheral business fields) and least of all in the Chinese steel industry as a whole (Reuters, December 25, 2006). By restricting access of foreign investors to China's steel industry the government is meddling with the market-based allocation of capital and productive resources. Competitive processes are inhibited and comparatively unproductive domestic players unduly promoted.

b) Outward Foreign Direct Investment

Over the first three decades after the founding of the People's Republic, outward investment was practically non-existent – crippled not only by political considerations but also by the absence of an adequate institutional framework and a severe shortage of foreign exchange. One year after initiating the reform and opening policy in December 1978, the central government introduced the "Fifteen Measures for Economic Reform". This concept addressed the establishment of Chinese companies overseas and outward investment in general for the first time. In 1984, the year China designated 14 coastal open cities to strengthen its pursuit of foreign investment, Beijing took the next step by introducing general approval guidelines for investments in overseas non-trade joint venture companies to replace the previous case-by-case approval process at the state council. It took another five years until rules for the management of foreign currency in outward investment transactions were promulgated.

In 1997 the 15th National Party Congress for the first time clearly stated the need to 'encourage outward investments that can bring to bear the country's relative competitive advantage and to improve the utilization of […] two markets and two resources' (NCCPC 1997). One year later, the second plenary session of the 15th Central Party Committee stipulated to 'support a group of strong and competitive state-owned enterprises to go abroad, mainly to Africa, Central Asia, Middle East, Central Europe, South

America and other regions, in order to set up factories there' (NCCPC 1998). After 1999 witnessed a plethora of regulatory documents aimed at promoting outward investments and putting in place a basic institutional framework in the form of rules and regulations, the following year marked the birth of the so called 'Going Out' Strategy. First introduced in the Tenth Five Year Plan (2001–2005) it was carried over into the 11th Five Year Programme (2006–2010) and is set not only to be continued but strengthened in the foreseeable future. The Proposal for the Formulation of the 12th Five Year Programme (2011–2015), promulgated in October 2010 by the Central Commission of the Communist Party, stipulates to accelerate the implementation of the Going Out Strategy and guide companies to invest overseas.

Chinese authorities attach great importance to the Going Out Strategy and regard it as a way to expand the development potential of the Chinese economy because it helps to achieve four objectives: (1) improve the supply of required resources, (2) stimulate product exports, (3) foster Chinese multinationals and brands, (4) diversify production locations and sales markets in order to ease trade frictions (GOSC 2006). Over the past ten years, most policy documents targeting the steel industry's development contain a reference to the Going Out Strategy and call upon enterprises to venture abroad. The Adjustment and Revitalization Program for the Iron and Steel Industry (ARPISI), launched in March 2009 at the height of the world financial crisis, for example demands that 'companies seize opportunities and actively pursue the Going Global Strategy' (ARPISI at 2.5.5). The Chinese government's support for steelmakers' outward investments is threefold: (1) financial support, (2) administrative support and (3) informational and other support.

Financial support comes in different forms such as preferential access to capital markets and bank credit from state-owned commercial or policy banks (ARPISI at 4.9). In some cases, companies can also benefit from low-cost loans. When Baosteel took over a 15 percent interest in Aquila Resources, an Australian company investing in mineral deposits, in August 2009, the Chinese steelmaker agreed to help Aquila secure financing from Chinese financial institutions to help the development of its projects (Xinhua, October 30, 2009). In June 2010 it was reported that Aquila had reached an initial agreement with the China Development Bank (CDB), one of three Chinese policy banks, to develop iron ore and coking coal projects. This does not come as a surprise since Baosteel is one of the CDB's strategic partners (Bloomberg 2010a).

Cash grants are another way for government authorities to support overseas investments. Jiangsu Shagang, for example, has received a subsidy of RMB 1.35 million for its iron ore project in Australia in 2005 making the company the largest recipient of such funds in Jiangsu Province in that year. The money was paid out to the Zhangjiagang City based parent company via the local finance and budget offices (Financial Times, February 15, 2006).

Key steelmakers can also apply for support from various government-sponsored assistance funds. The ARPISI urges companies to make full use of three separate special funds: the Fund for Mining Rights to Overseas Mineral Resources, the Fund for Economic and Technical Cooperation Overseas and the Fund for Reducing Risk in Prospecting of Overseas Mineral Deposits. Mining operations of key steel enterprises can be promoted in a variety of ways stretching from the prospecting and exploitation of foreign ore deposits to technical cooperation and acquisitions (ARPISI at 4.10).

Since 1998, the CDB has launched several large financial vehicles, like the China Africa Development Fund (CADF), to support Chinese investment of all industries in certain regions. The CADF established in 2007 with a registered capital of US$ 1 billion and the CDB as its sole shareholder 'aims to support Chinese companies to develop the cooperation with Africa and enter the African market'. It can be assumed that the fund will operate in line with current investment promotion policies since 'CDB has accumulated profound experience vis-à-vis investing in Africa through its 'Going Global' initiative' (CADF 2010).

Beside subsidies and favourable conditions for credit financing, companies can also take advantage of special tax incentives. As recent as 2010, the State Administration of Taxation (SAT) (2010) promised to increase fiscal support and ease the tax burden for enterprises following the Going Out Strategy. Relevant measures were going to favourably adjust and clarify guidelines for tax credits and export taxes.

Furthermore, steps were announced to prevent double taxation for both corporate and personal income tax.

Administrative support involves the simplification of administrative procedures and the elimination of bureaucratic barriers which have delayed or crippled overseas investment projects in the past. As China began to rapidly build up foreign exchange reserves, a host of regulations restricting the use of foreign currency became increasingly obsolete and were finally abolished in 2006. In the same year, the General Office of the State Council (GOSC) (2006) listed institutional deficiencies as the most important obstacle to outward investments and promised the reduction or cancellation of certain registration and approval procedures. While this point appeared to be high up on the central government's agenda, surprisingly little headway has been made since then because three years later, the ARPISI again announced a streamlining of official project approval procedures and improvements of administrative proceedings in areas such as credit, foreign exchange, taxation, human resources and immigration (ARPISI at 4.10). However, even as late as 2010, the Development and Research Centre of the State Council (2010) still criticized that approval procedures for investors were too complicated, intransparent and time consuming.[18]

Informational and other kinds of support covers a wide range of services provided by government organizations inside and outside China. In 2003, MOFCOM established the Foreign Investment Promotion Centre and launched an online database to help Chinese companies obtain and exchange relevant information. Reports concerning investment opportunities, relevant laws and regulations, trade barriers and other issues in different countries are published as well. In addition, economic and trade sections of Chinese embassies and consulate offices offer counselling to Chinese companies, help facilitate investment projects, support PR activities or use their political cloud for the benefit of Chinese investors. Since 2004, they are also required to dedicate a section on their website to allow for advertising of local agencies offering intermediary services (General Office of MOFCOM 2004). SAT has promised to assist companies venturing abroad by clarifying regulations, improving related information services and pursuing double tax conventions with other countries. To reduce the risk for investors, MOFCOM has signed agreements on the protection of investments with many countries and the state-owned China Export and Credit Insurance Co. provides investment insurance services particularly relevant for miners active in politically unstable African countries.

From a functional perspective, government support for overseas investments by Chinese steelmakers concentrates on three focal points: (1) mining operations, (2) global sales and customer service networks and (3) production facilities.

As pointed out earlier, the rapid development of the Chinese economy – characterized by massive urbanization and industrialization trends – has fuelled an even more rapid expansion of domestic steel production that has driven the once self-sufficient steel sector towards high levels of import dependence and steep price increases for raw materials. Although this environment should be incentive enough for Chinese steelmakers to engage in **overseas mining investments**[19] the government is exerting influence as well. Mei Xinyu, a research fellow at the MOFCOM Research Centre was quoted in July 2010 as saying that political power is now playing a major role in purchasing overseas mineral assets (Mysteel 2010). The ISIDP demands an intensification of overseas investment and international cooperation in mining operations and calls for the establishment of supply bases for iron ore, chromium ore, manganese ore, nickel ore, scrap steel and other raw materials. Furthermore, it promises support for large key enterprises investing in the exploitation of overseas mineral deposits by way of M&A, joint ventures or cooperation agreements with foreign counterparts or through direct purchases of mining rights (ISIDP at

18 It states that while projects on average have to pass scrutiny by three government departments, state-owned enterprises and insurance firms face the toughest bureaucratic hurdles requiring consent from the most agencies. These may involve the State Administration for Foreign Exchange, the MOFCOM, the National Development and Reform Commission, the Ministry of Finance, the State-owned Assets Supervision and Administration Commission, the China Insurance Regulatory Commission, the China Banking Regulatory Commission, the China Securities Regulatory Commission or other industry specific supervision and administration bodies.

19 Even more so since steelmakers located in coastal areas are particularly encouraged to source iron ore, coke as well as other important raw and auxiliary materials from the world market (ISIDP at 30).

30 and ARPISI at 3.8). CISA echoes government calls for greater overseas investments of China's steel conglomerates, urging them to increase the share of directly controlled overseas iron ore resources to one third and eventually 60 percent of Chinese import demand. For the time being, Chinese companies control less than 20 percent of China's total import tonnage by means of overseas direct investment stakes (Taube and in der Heiden 2009).

A specific feature of government support constitute 'FDI plus official development assistance (ODA)' packages which provide for a complementary set of business investments and infrastructure development. Such activities have in recent years been observed with increasing frequency in Latin America and Africa. With respect to steel industry interests, Mauritania as well as Brazil have come into the focus of this new approach.

Besides steelmakers, mining companies are also encouraged to venture abroad. In a research paper, the Development Research Centre of the State Council (2010) reflects on Chinalco's failed attempt to increase its stake in Australia's second largest iron ore miner Rio Tinto. The deal was met by unexpected levels of resistance from existing shareholders as well as the Australian public and political circles. The authors suggest that Chinese mining companies not steelmakers should invest in overseas mineral deposits since they operate on the same step of the value chain as their investment target and do not simultaneously act as customers with an inherent interest to drive down sales prices which would undermine company profits and harm the interests of other investors.

Like steelmakers, miners can also claim government support for overseas investments. Since 2000, MOFCOM has established special funds to support mining enterprises by reducing the financial risk involved in conducting preliminary works such as feasibility studies. According to Xinhua, state funding has facilitated a series of risky prospecting projects abroad (Xinhua, December 14, 2004). Furthermore, the GOSC (2006) suggested to accommodate the needs of predominantly not state-owned mining companies with transparent ownership structure, successful business operations, strong competitiveness, advanced corporate governance systems and an internationalized workforce as much as possible with regards to foreign currency, credit volumes and insurance coverage.

All large Chinese steel conglomerates are actively pushing the development of **global sales and customer service networks**. Since major customers in the automotive, machinery or shipbuilding industries require close coordination and cooperation with their steel suppliers regarding product specifications and quality, maintaining a local presence in foreign markets is particularly important. Furthermore, as new entrants on most overseas markets, Chinese companies usually face tough competition from other international steelmakers with well established business connections. Subsequently, setting up their own offices becomes an essential success factor. The ARPISI is among the policy documents that address the need to set up international sales and service networks (at 4.10).

The promotion of **overseas production facilities** is a relatively new approach that policy documents have not yet addressed in detail and only very few steelmakers, like Wuhan Steel, are undertaking serious steps to build up production facilities abroad (China Mining 2010). Many projects announced in the past were either postponed or abandoned, like the steel plant joint venture of Baosteel and Vale in Brazil (The Australian, September 25, 2009). Encouraging mills to set up overseas production bases aims at reducing domestic consumption of energy and resources, limiting environmental damage and greenhouse gas emissions as well as easing the pressure on domestic (transportation) infrastructure. Jia Yinsong, an official with the MIIT, told reporters that 'Chinese enterprises should be aware of the significance of transforming from production exports to capacity exports' while a senior representative for CISA urges Chinese steelmakers to 'learn from the Japanese counterparts who followed automobile manufacturers abroad, providing [them] with matching steel products from their overseas mills' (Xinhua 2010).

The establishment of overseas production bases is also expected to reduce international trade frictions. Already in 2006, the GOSC (2006) announced support for enterprises from industries with relatively large production resources to set up overseas processing bases.[20] One effect the paper highlights is that in this way, companies can diversify the place of origin of their manufactured products so they show up

in trade statistics as exports from other countries – not China. Tianjin Pipe Group is a good example for a Chinese steelmaker whose investment location decision was influenced by foreign trade barriers. The company whose American export business was strongly affected by the US Department of Commerce's decision to impose import duties of up to 99 percent on its main product: seamless pipes. In the following, the Tianjin company has decided to set up shop inside the United States and invest US$ 1 billion in a manufacturing plant for seamless pipes in Corpus Christi, Texas (Prasso 2009).

Overall, FDI has proved an important avenue for China as it has pursued closer integration with the world economy. With regard to the steel industry, Chinese government authorities did not launch into an all out opening trend but rather held a utilitaristic stance. This was based on their long term objective to upgrade production technology, improve product portfolio and optimize product quality for maximum competitiveness. While barriers limiting outflows have been lowered, i.e. access to financing, or eliminated, i.e. access to foreign currency, they stand tall with inflows. Regulation governing inward FDI continues to restrict access to foreign companies that both possess advanced technologies and are prepared to share those with local joint venture counterparts. This serves to maximize potential spillovers. At the same time, international players wanting to go it alone in China or set up production in the low or medium product range continue to be unwelcome. Furthermore, nine years into Chinese WTO membership, foreign companies still do not stand a chance for official approval for acquisitions of controlling stakes in local steelmakers.

5 Conclusion

As the preceding sections of this paper have illustrated in detail, the Chinese government seeks to actively influence the development of its steel industry and interferes heavily at the international market interface. While environmental protection and resource conservation, commonly cited as motives, are laudable causes, there is sufficient reason to assume that more material motives play an important role as well. The interventions presented here are set to effectively alter the size and direction of trade and investment flows. As the example of the steel industry highlights, the nature and dimension of these interventions suffice to invoke substantial change to normal patterns as we would expect them in a competition based market economic system with a commitment to free trade.

From the above, three major conclusions can be made about the political intentions and composite effects of the various government interventions. 1. Exports restrictions for vital inputs and the promotions for higher value added products by Chinese authorities have an immediate and an intermediate effect. Firstly, they provide domestic steelmakers with access to a large supply of low priced materials while inflicting scarcity and price rises on their foreign counterparts. The increased profit margin enjoyed by Chinese companies vis-à-vis international competitors frees up resources that can be invested in the expansion and modernization of domestic production. Secondly, they reduce the supply of Chinese steelmaking inputs on world markets causing prices to rise which stimulates additional exports from other countries that would otherwise not have occurred. Since foreign countries faced with increased exports of raw materials may feel the pinch from lower availability and high prices, they could opt to institute their own export barriers. In theory, this could lead to a vicious circle with every steel producing country seeking to protect its domestic resources from overseas customers and escalating scarcity of freely available materials.

2. By limiting foreign investments into its raw material sector and the steel industry in particular, government authorities prevent overseas steelmakers from setting up shop in China and take advantage of the same favourable conditions enjoyed by Chinese firms abroad. Furthermore, tight entry regulations ensure that only technologically strong international players can engage in joint venture companies targeting the high tech, high value added segment. By exclusively attracting investments in selected areas

20 While the steel industry is not explicitly mentioned in this context, it stands beyond doubt that the Chinese steel industry has relatively large production potential.

with the potential of technology spillovers, the government is trying to maximize the value of foreign investments to the iron and steel industry as well as the economy as a whole.

3. Since government moves to influence trade and investment patterns are mostly announced on short notice and are therefore hard to predict, long term planning for companies is complicated and has to involve second-guessing. Since iron ore mining, coking production and steelmaking are all capital intensive industries with long gestation times, companies both in China and abroad are burdened with substantial risks to their business decisions.

With regard to the steel industry, China's integration into the global economy has been a major transition. The process itself, however, has been heavily influenced by the plans and ambitions successive generations of economic policy makers have worked out for 'their' steel industry. As a strategically important – and militarily relevant – branch of industry, steelmaking has attracted constant attention and was subject to tight regulation. Industrial policy measures at the global market interface have therefore evolved to comprise a large variety of measures and means, from taxes and tariffs to government mandated bank loans and ODA, in order to discretionarily steer the intensity of global market integration. By acting as a gatekeeper controlling all inward and outward-directed activities the Chinese government has been trying to hold the market forces in check and gain maximum advantage for China, its iron and steel industry and the economy as a whole. In doing so, China's administrators have proven a remarkable degree of un-dogmatic flexibility and goal orientation. As such, the integration of China's steel industry into the global division of labour remains a function determined by global market parameters as well as normative policies determined in China's top economic policy circles.

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