Capital Goods – International Regulatory and Policy Environment

China

The last two decades have seen emergence of China as one of the key exporters of capital goods in the world from being a small global player in 1970s. The share of machinery in China's total exports rose to 41% in 2000-2004 from 18% in 1990-1994. China's share in world machinery exports increased almost 5 times in a decade (from 2.3% in 1994 to 11% in 2004). The FDI in the sector on the back of favourable investment policies has been a major contributor of such profound growth. The FDI has also aided technological up-gradation in the sector; from being a mass producer of labour-intensive and low technology goods, current Chinese exports of machinery include the latest innovations and more advanced technology. China's machinery manufacturing industry provides a wide range of products including large gas turbines, large pump storage groups, and nuclear power sets, ultra-high voltage direct-current transmission and transformer equipment, complete sets of large metallurgical, fertilizer and petro-chemical equipment, urban light rail transport equipment, papermaking and textile machinery.

Until 1978, the machinery industry in China was dominated by large state-owned enterprises (SOEs). During the 1980s and particularly with the economic reforms of 1990s, the structure of China's secondary industry changed fundamentally; private Chinese entrepreneurs and foreign investors increasingly contributed to the remarkable growth in the manufacturing output as against the SOEs.

The late 1990s was the period of ownership restructuring in the state owned industries; a large number of SOEs were transformed into joint-stock companies, some went bankrupt, some were merged with other enterprises, or were sold to private individuals. The ownership rights reforms have thus brought about a significant improvement in the performance of Chinese industrial enterprises. Alongside the ownership reforms, labour reforms were also introduced. In 1994, a new Labour Law was passed that gave the right to employers for dismissing workers. As a result of the labour market reforms, China witnessed large-scale firm size downsizing and witnessed increased efficiency for firms in the capital goods sector.

The Government has continued its direct intervention measures to "guide" resources into certain sectors of the economy, particularly manufacturing. China uses industrial policies, combined with expansionary fiscal and monetary policies, to boost the development of the manufacturing sector. For example, in 2009, the Ministry of Information Industry (MII) of China issued a Planning Release entitled 'Restructuring and Revitalization of Planning for the Equipment Manufacturing Industry', which highlighted the importance of the equipment manufacturing industry for the absorption of labour and as an impetus for the adoption of capital-intensive technology in various sectors. The plan included sector-specific industrial policies to facilitate the development of ten sectors; of which nine were manufacturing and one "logistics", and had been affected strongly by the global financial crisis. The Ministry of Industry and Information Technology (MIIT), along with the NDRC, intends to promote the development of these sectors by adjusting the VAT rebate rates on exports, providing preferential loans, supporting their innovation, and "guiding" the consolidation of industrial structures.

Investment measures

Since the inception of reform and open door policy, China has been successful in introducing foreign capital and technology for the development of industrial sectors. China's abundant, high-quality and low-price labour resources; a potentially huge domestic market; preferential policies for foreign capital and foreign trade; and a stable political and social situation has helped China to emerge as one of the largest global destinations for direct foreign investment. The inflow of FDI into China has remained strong since the mid-1990s and within the manufacturing sector, the machinery and equipment market attracted USD 4 billion of FDI in 2005.

In contrast to FIEs, domestically owned enterprises in manufacturing have generally lagged behind in technology development, thus the Government has been attempting to upgrade technology through industry development policies, attracting FDI, improving protection of intellectual property rights, and facilitating the establishment of R&D centres.

Government subsidies

The Chinese government employs various industrial policy tools to accelerate growth of SOEs and to promote the rapid expansion of China's 'pillar industries'. Power generating equipment is one of the so called "pillar industries" in China. There are several big players among the SOEs, for example Shanghai Electric, Dongfang Electrical Machinery and Harbin Power Equipment. SOEs in this sector receive substantial direct and indirect subsidies from the state government as well as from local governments. Further, the government often negotiates technology transfer from foreign enterprises in exchange for procuring a government project.

An indicative list of various types of subsidies provided by the Chinese authorities is provided in the table below.

Type of subsidy	Features
Transfer of ownership	The Chinese government still owns a large number of companies in many traditional industries including machinery, thus it can subsidise companies by transferring ownership of equity stakes from one company to another at below-market or even at zero cost.
Cash grants	The Chinese government has admitted that it continues to provide direct grants to state-owned enterprises that incur losses, though it has agreed to abandon these practices in line with its WTO accession agreement.
Debt-for-equity swaps	Companies incurring financial losses are commonly provided with additional funds by state-owned banks at below-market rates. In case manufacturers default on the provided loans, portions of bad debt are simply exchanged for equity stakes in the operation.
Interest subsidies	Banks are granting lower than market interest rates for loans to State-owned companies
Debt forgiveness and deliberate extension of non-performing loans	Some government institutions award competitive advantages over foreign competition by cancelling on loans to local producers without requiring repayment
Currency management	By keeping its currency, the Chinese Renminbi, undervalued, the Chinese government is effectively subsidising Chinese exports while making imports more expensive

Energy and raw material subsidies	The Chinese government is providing additional grants to fund the purchase of energy and raw materials, either in the form of reduced costs or in kind, to favour specific industries.

Trade measures

The Chinese government adopted the "open door" policy since the inception of economic reforms. Consequently, manufactured exports (especially capital goods) have served as the main engines of growth in China. The import tariffs for manufactured products are low (in comparison with other developing countries), and are mostly *ad valorem.* Export taxes and VAT rebate rates on manufacturing products continue to be adjusted from time to time.

Intellectual Property Right Protection and Enforcement

China is notorious for IPR infringements in the machinery sector. Chinese private companies generally under-invest in R&D. While R&D activities often focus on simplifying foreign machine models to adopt them to the local market at a fraction of the original machine's price, copying or simplifying single machinery functions from advanced Western machinery is a common practice. The products that are most commonly copied are low-value and high-volume goods. For high-value and hi-tech products the threat by copying is much less severe.

Germany

Germany is one of the largest manufacturers and exporters of capital goods in the world. Machinery and equipment sector is the second largest and most innovative industry sector in Germany, and has been a major driving force for German's economic growth. Even during the period of economic downturn that has affected entire Western Europe, German economy showed robust growth on the back of its capital goods exports.

Germany was the world's largest exporter of machinery in 1910s but post the Second World War, much of the industry in Germany was dismantled. The rest of Europe's manufacturing industries were also destroyed and thus it became imminent to supply machinery for industrial recovery, which in turn encouraged Germany's capital goods industry to grow at a rapid pace of approximately 10% per annum from 1950 – 1970. Investment demand was high throughout Europe, aiding German firms specialising in the production of capital goods. For almost next two decades, Germany was the leading exporter of capital goods in the world.

The growth of capital goods sector can be attributed to the overall industrial policy and support measures provided by the government to the companies in this sector. Germany is essentially an industrial economy and its economic policies are geared towards strengthening of the industry. The government spends nearly 2.6% of its GDP on research and development and is planning to further increase this ratio to 3% by 2015. Additionally, the government has followed wage moderation, wherein wages are kept low to ensure a competitive edge to its companies as a part of its overall export driven industrialisation policy.

In contrast to several developed economies, Germany is a social market economy which follows the concept of co-determination, wherein workers have a right to participate in the management of the company they work for. The law allows workers to elect representatives (usually trade union representatives) for almost half of the supervisory board of directors.

In the 1990s, Germany's exports were affected by various economic shocks including the *German unification* and an associated increase of labour costs; *a global labour supply shock* through the entry of low cost developing countries (e.g., India, China), *a global income shift* towards oil exporting countries, and *European economic integration* which opened new export markets and allowed new production processes to emerge. High labour costs and taxes (social security contributions) contributed to stagnating growth in western Germany, which slowed from over 4.6% in 1990 to around 2% for the rest of the decade, reaching a nadir of 0.75% in the first five years of the 21st century. The economic slowdown was thus marked by low GDP growth, high inflation and widespread unemployment.

To aid economic recovery, government followed a wage moderation policy since 1996, due to which German unit labour costs dropped by around 20% compared with its major trading partners. However, this was not sufficient as rising social security contributions to pay unemployment and other welfare benefits burdened the industry, which was thus forced to underinvest, cut labour and relocate operations overseas.

In 2003-2005, the government implemented its Agenda 2010 social security reforms, designed to strengthen incentives for hiring and taking up work. There were three main areas of focus for Agenda 2010: the economy, the system of social security and Germany's position in the world market. Agenda 2010 included a 25 per cent reduction in the basic rate of income tax. A series of changes to the labour market, known as Hartz I-IV, beginning in 2003 and ending in 2005, affected unemployment benefits and job centres in Germany, and the very nature of the German system of social security. The reforms resulted in falling unemployment, more jobs, and expanding trade following which the economy recovered in 2006 when German growth rose to 2.9%, from 0.8% in 2005. Since then, German economy has performed better than most other European countries.

Germany's investment climate is highly lucrative for manufacturing businesses, owing to the various incentives offered by the government, existence of sound and secure legal framework, open and transparent markets, strong infrastructure, reliable logistics, internationally competitive tax conditions and financial support from the government. Details of various government policy measures are provided in the table below.

Policy area	Measure	Key features
Investment incentive package	Cash incentives	The main instrument of Germany's investment incentives package are cash incentives provided in the form of direct investment grants. Investment grants are offered in several incentive regions in Germany. Eligible investment costs include the purchase or production costs of buildings, machinery, and equipment. The purchasing costs of intangible assets are likewise eligible. The IZ is a special incentives program created to promote investment activities in Eastern Germany. The IZ is granted tax-free. The program is based on

		the Investment Allowance Act 2010. Investors automatically receive IZ funding (subject to all eligibility criteria being satisfied) when investing in Eastern Germany – without having to go through general incentives program application procedures.
	Interest reduced loans	Special loan programs are offered by publicly organized financial institutions. These programs usually offer loans at below market interest rates and as subordinated loans similar to equity. The provision of such loans makes it easier for investors to access additional funding from private lending banks.
	Public guarantees	This tool is offered by the state and the federal governmentto help secure private bank loans.
Operational incentives package	Incentives for R&D Projects	Germany offers several incentives programstargeted at reducing the operating costs of R&D projects. Programs operate at the regional, national, and European level and are wholly independent from investment incentives.At the national level, all R&D incentives programs are subsumed under the Federal Government's four-year High-Tech Strategy. The High-Tech Strategy defines specific sectors with a high dependency on new high-tech developments. Each sector comprises various R&D programs.
	Labour related incentives	Germany's Federal Employment Agency *(BundesagenturfürArbeit)* and the German states offer a range of labour related incentives programs. The range of programs offered can be classified into four main groups: • *Recruitment support* - With over 800 local job centres located throughout Germany, the Federal Employment Agency assists companies in finding new employees. Regardless of the qualification or experience level required, job centres offer a highly competent and professional service as well as market expertise to help identify prospective employees in all sectors • *Training support* - Prospective employees often need to participate in appropriate training measures before operating machinery and technical equipment. Such measures can be organized and administered by external specialist institutions. In general, training program costs of up to 100 percent can be subsidized • *Wage subsidies* - Employers can be granted a direct cash payment paid as a proportion of the employee's wage. Grants can account for up to 50 percent of wage costs including social security

		contributions. They may be provided for a period of up to 12 months. Wage subsidies are granted when hiring long-term unemployed individuals. • *On-the-job training* - Companies can be supported with subsidies covering up to 50 percent of all training costs
FDI		No distinction is made between Germans and foreign nationals regarding investments, available incentives or the establishment of companies. There are no restrictions or barriers to capital transactions or currency transfers, real estate purchases, repatriation of profits, or access to foreign exchanges.
Taxation		Significant company taxation reforms made in 2008 have resulted in a decrease of the corporate tax burden by around 25 percent. The overall average corporate tax burden has sunk to just below 30 percent, with a number of federal states providing even more competitive tax rates. Standard corporate income tax has also been reduced by ten percent to just 15 percent on all corporate taxable earnings.

Italy

Italy is the world's fifth manufacturing country in terms of manufacturing value added after the US, China, Japan and Germany and the second industrial manufacturing country in Europe after Germany. The manufacture of machinery and equipment is one of the largest sectors in the EU manufacturing. Over the last decade, the Italian economy significantly increased its foreign trade surplus in the sector of "machinery and transport equipment" while other European countries such as France, Spain and Great Britain became weaker and weaker.

Italian manufacturing is to a large extent characterized by the employment of intermediate technologies, more related to embodied technological change than to internal R&D. From this view point, the capital goods industry - particularly the branch specialized in the production of industrial machinery - is one of the main sources of new technology for most of the other industries using capital equipment embodying new knowledge usefully employable in the development of new products or the improvement of existing ones. Besides driving technological change and innovation in those traditional consumer goods industries that constitute the bulk of the Italian economy, this industry is also among the few manufacturing industries in which Italy holds a competitive advantage mostly based on the technological strength of its firms. As a result, the country is among the top exporters worldwide of specialized industrial machinery, with a share of world exports almost always above 10% during the 1990s and a share of EU exports ranging between 21% and 22% over the same period.

The Italian industrial policy has been characterized by heavy state intervention until the 1990s. The government had stake in major sectors like steel, machinery, telecommunications, banking, energy, etc.

by way of state-owned firms. These state-owned firms enjoyed huge credit incentives on investments. These incentives, by reducing the cost of capital, favoured capital intensive investments. The industrial development in the country followed a dualistic pattern; while on the one hand small firms proliferated in Italy's Northwest and Centre, on the other hand large corporations (mostly state-owned) dominated the Southern Italy. The small firms received limited credit incentives but benefited from devaluation as it helped increase their exports. The state owned large corporations witnessed a period of instability due to cost rise, growing competition and changing demand patterns but were able to overcome the crisis on the back of government support policies including devaluation, incentives and grants. During the mid-80s, several industries went through severe crisis, which forced the government to introduce sector specific policies to restructure firms in various sectors. Further, the government was pressured to reform the industrial policy following the European Commission's deadline of 1992 for unification of European markets. Especially in the second half of the '80s, the Commission increased its control over state aid to firms. And in 1990 and 1991, the Court of Justice and the Commission rejected many resolutions of the Italian government to aid some state-owned firms. The reforms were marked by privatization of state-owned firms and banks, and liberalization of the electricity sector and restructuring of the incentive system in favour of the South of Italy, which now included fiscal incentives to small-sized firms for creating new jobs and promoting innovation.

Investment policies and measures

A wide range of opportunities is available for new investments and for expanding and strengthening existing ones. There are three different sources of incentives: European, national and regional. In some cases, incentives are offered without distinction to both Italian and foreign entities based in Italy. The incentives provided by the European Union and Italian central and local governments aim to enhance regional development and competitiveness by supporting local business activities, reinforcing existing ones or helping start-up initiatives by promoting and integrating research, innovation and training programmes.

Details of these programmes are provided in the table below.

Programme	**Sub-programme**	**Key features**
European programmes		
European Incentives Plan 2007-2013 (The Italian government has combined its national incentive plans with the European one.)	The European Regional Development Fund (ERDF)	Its aim is to finance infrastructures and manufacturing plants to create and safeguard sustainable jobs. The ERDF is especially addressed to SMEs and provides various financing facilities, including venture capital, debt and guarantee funds, etc. The areas of investment include development of industrial sites, research and technology, information technology, protection of the environment, energy, education, equal opportunities, and transnational, cross-border and interregional co-operation.
	The European Social Fund (ESF)	The ESF aims to strengthen economic and social cohesion by improving employment and job opportunities, establishing the following priorities: increasing flexibility of

		workers, enterprises and entrepreneurs, enhancing access to the labour market, promoting the social inclusion of disadvantaged people, enhancing networking between higher education, research and business, promoting and mainstreaming innovative social activities at both international and inter regional level, strengthening the effectiveness of the public administration and services.
Central government programmes		
Contratto di Programma	*Industrial investment programmes*	The following types of programmes are eligible: • creation of new industrial units • expansion of existing industrial units • diversification of production • Substantial changes to production processes.
	Innovation and R&D programmes	Incentives may be granted for innovation and R&D programmes through the following: • equity contributions • free grants to reduce interest expenses • a combination of both. Benefits: • 50 percent of GGE for industrial research costs • 25 percent of GGE for experimental development costs. The benefits are increased by up to 10 percentage points for medium-sized companies and up to 20 percentage points for small companies.
Localisation agreements		Localisation agreements offer foreign investors a range of financial, administrative and procedural support to attract industrial investment to southern Italy. They include: • simplified authorisation procedures • incentives based on the type and location of the investment • continuing support - from the Ministry of Economic Development and ***Invitalia***(governmental agency for the promotion of inward investments and business development) - in every phase of the procedure • a commitment by local authorities to create and/or improve

		infrastructures and services in the selected area.
The National Programme for Research and Competitiveness	Support for Structural Changes	This includes incentives for scientific networks and firms, with the aim of promoting substantial changes in the business sectors of the Convergence regions, by starting and/or consolidating science and technology-based businesses. The target areas of activity include the following: science/technology parks focused on production systems and the promotion of new business initiatives technology/production parks focused on enhancing competitiveness in the system networks focused on strengthening the scientific and technological potential of the Convergence regions upgrading of facilities and equipment in science and technology cooperation in the fields of science and production. Grants are provided to companies that invest in a variety of industrial research projects aimed at improving or developing products, production processes or services. Assistance is also available for programmes supporting infrastructure and services in the industrial research sector. A new Investment Fund for Research and Technological Development (‘*FIRST*’) is awaiting activation.
	Supporting Innovation	This aims to increase investment in innovation and development, increase the competitiveness and attractiveness of the Convergence regions, and strengthen the ability of companies to adapt their strategies to ever-changing business scenarios. It includes the following objectives: • strengthening of the production system • improvement of the capital market • streamlined measures for sustainable business development and information technology.
	Industria 2015	It is a plan that sets out the action necessary to develop the national production system and enhance its competitiveness. It includes the following: • **Industrial Innovation Projects**: measures that encourage the development of specific and highly innovative types of products and

		services in areas that are considered strategic to the development of the country, such as energy saving, sustainable mobility, new life technologies, new technologies for 'Made in Italy', and innovative technologies to manage, preserve and exploit Italy's cultural heritage. Firms are able to choose the type and form of financial support that best suits their programmes. • **Enterprise Networks**: contractual forms of cooperation between enterprises, and especially SMEs, aiming to increase their critical mass and achieve greater bargaining power without the need to merge or come under the control of a third party. • **Business Financing Fund**: its purpose is to facilitate the access of companies, especially SMEs, to credit and capital. The Fund participates in transactions proposed by banks and/or financial intermediaries to mitigate credit risk.
Incentives offered by regions All Italian regions have issued specific laws providing business incentives such as: • grants or subsidised loans to SMEs for capital expenditure and business creation • aids to the service industry, trade and tourism • aids to local business sectors. These incentives are often combined with local assistance and consulting services, provided by either local or international business development agencies or by regional financial companies.		

Under the National incentives plan, various subsidies are being provided to the eligible enterprises including Capital grants, operating grants, interest rate subsidies, tax credits, equity participation and guarantees. The details of these subsidies are provided hereunder.

a) Capital grants: The financial aid is granted in two or three instalments and paid directly to the enterprise following the presentation of all documents regarding the cost borne in implementing the investments. Beneficiaries are not required to return the received amount.
b) Operating grants: This includes grants to cover operating expenditure of the eligible enterprises.
c) Interest rate subsidies: Loan is being provided at lower than market interest rate
d) Tax credits: Tax relief for new investments and employment
e) Equity participation: This is aimed at providing support to enterprises operating in industrial and service sectors for initiatives involving new facilities, expansion and modernisation in specific geographical areas
f) Guarantees: The state or associated entity covers the cost of guarantees that the beneficiary is required to pledge in order to obtain medium/ long term loan