



# Successful trade promotion

## Lessons from emerging economies

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### Key messages

- Support for trade-related infrastructure, trade facilitation and effective state–business relations can improve trade performance.
- The emerging economies China, India and Brazil have successfully supported their trade performance and offer lessons for low-income countries (LICs):
- Infrastructure: establish a favourable institutional environment, seek domestic institutional investors and foreign investment and support public–private partnerships (PPPs).
- Trade Facilitation: boost the use of information and communication technology (ICT), promote electronic data interchange (EDI) and single window facilities and minimise physical inspections.
- State-Business Relations: build capacity for effective state-business relations, address vested interests that resist reform and create a sound framework for competition.

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# Abbreviations

AAI	Airports Authority of India
ACP	Accredited Client Programme
ADB	Asian Development Bank
ARTNeT	Asia-Pacific Research and Training Network on Trade
BNDES	Brazilian Development Bank
BOT	Build, Operate and Transfer
BRIC	Brazil, Russia, India, China
CBEC	Central Board of Excise and Customs
CDS	Credit Default Swap
CFS	Container Freight System
CIRC	China Insurance Regulatory Commission
COMESA	Common Market for East and Southern Africa
CTTTFP	Comprehensive Trade and Transport Facilitation Programme
DIE	German Development Institute
DSE	Simplified Export Declaration
EAC	East African Community
EC	European Commission
ECB	External Commercial Borrowing
ECDPM	European Centre for Development Policy Management
EDI	Electronic Data Interchange
EPC	Engineering, Procurement and Construction
FDI	Foreign Direct Investment

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FICCI	Federation of Indian Chambers of Commerce and Industry
FII	Foreign Institutional Investor
f.o.b.	Free On Board
FTA	Free Trade Agreement
FTP	Foreign Trade Policy
GDP	Gross Domestic Product
HIDZ	High-Tech Industrial Development Zone
ICD	Inland Container Depot
ICEGATE	Indian Customs and Excise Gateway
ICES	Indian Customs EDI Systems
ICT	Information and Communication Technology
IDF	Infrastructure Debt Fund
IDFC	Infrastructure Development Finance Corporation Ltd.
IFC	International Finance Corporation
IIFCL	India Infrastructure Finance Company Limited
IPA	Investment Promotion Agency
ISI	Import Substitution and Industrialisation
IT	Information Technology
LCS	Land Clearance Station
LIC	Low-Income Country
LICF	Low-Income Country Infrastructure Fund
LPI	Logistical Performance Index
NDRC	National Development and Reform Commission
NHDP	National Highways Development Project
NIDB	National Import Data Base
NPS	New Pension Scheme
NTHS	National Trunk Highway System
O&M	Operations and Maintenance
ODA	Official Development Assistance

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ODI	Overseas Development Institute
OECD	Organisation for Economic Co-operation and Development
PAC	Growth Acceleration Programme
PPIAF	Public–Private Infrastructure Advisory Facility
PPP	Public–Private Partnership
REIDI	Special Incentive Regime for Infrastructure Development
RMS	Risk Management System
QFII	Qualified Foreign Institutional Investor
SADC	Southern African Development Community
SECEX	Secretariat of Foreign Trade
SEZ	Special Economic Zone
SISCOMEX	Foreign Trade Integrated System
SOE	State-Owned Enterprise
SPS	Sanitary and Phytosanitary
SPV	Special Purpose Vehicle
SWF	Sovereign Wealth Fund
UK	United Kingdom
UN	United Nations
UNECE	UN Economic Commission for Europe
UNESCAP	UN Economic and Social Commission for Asia and the Pacific
UNNEt	UN Network of Experts for Paperless Trade in Asia and the Pacific
US	United States
VGf	Viability Gap Funding
WCO	World Customs Organization
WTO	World Trade Organization

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# Executive summary

Emerging economies have been very successful in supporting their trade performance. But how have they achieved this, and what lessons could less developed countries learn from their experiences?

This report reviews the cases of China, India and Brazil to describe which major activities they have implemented to improve their trade performance. Its specific contribution is to examine how these countries have facilitated trade, focusing on the provision of infrastructure, trade facilitation and state–business relations. The report centres, in particular, on what worked and what lessons might be learned from these experiences for low-income countries (LICs) to support their trade performance as a crucial engine for economic development.

## **Promoting Trade: Infrastructure, Trade Facilitation and State-Business Relations**

The report puts the spotlight on support for trade-related infrastructure, trade facilitation and state–business relations because of their importance for trade performance. The high cost of trading in many emerging economies and developing countries is a major obstacle to the improvement of their trade performance. These costs are often the result of poor quality infrastructure and slow and cumbersome procedures at the border. Support for trade-related infrastructure such as roads, railways, ports, energy and telecommunication and, second, trade facilitation and the improvement of rules and procedures that govern how goods cross borders seek to address these binding constraints (e.g. Cali and te Velde, 2011; Duval and Utoktham, 2011; Francois and Manchin, 2007; Helble et al., 2009; Moïse et al., 2011; Nordås and Piermartini, 2004; OECD, 2012; Portugal-Perez and Wilson, 2011). Cooperation with the private sector – and state–business relations more generally – can also contribute positively to trade performance (e.g. Ash, 2011; Rugwabiza, 2011; Simumba, 2009; te Velde, 2010a).

## **Experiences in Emerging Economies: China, India and Brazil**

China’s centrally planned economy made infrastructure reforms to some extent less challenging than was the case in India and Brazil, since central control of the economy enabled the Chinese government to take risks and promoted strong integration between planning and implementation (Leoka and Guma, 2012). Successful infrastructure development has institutional and policy dimensions, including the approach to planning and implementation, but the key challenge in LICs is to develop clear financing options. It is not possible to finance infrastructure investment on the basis of traditional sources of public finance alone. The experiences in China, India and Brazil offer insights into how infrastructure can be financed using private sector resources.

While trade-related infrastructure typically demands huge amounts of capital, which tends to be scarce in LICs, trade facilitation measures can be implemented swiftly once the political will is present. The emerging economies have successfully implemented a number of trade facilitation measures that offer some lessons for LICs. Brazil, for example, has had positive experiences with special trade facilitation policies for low-valued exports policies,

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which seek to tackle complex and expensive export formalities (Caron and Ansón, 2008). At the same time, trade facilitation is frequently difficult to put into practice, since it often goes against strong vested interest. It is important to overcome these political economy challenges, for example by identifying the most relevant actors as well as their interests or evaluating what drives or hinders reform in trade facilitation in LICs (Lui and Siziba, 2012).

Formalised state–business relations can facilitate economic performance, for example, on the basis of better allocative efficiency of government spending and better growth and industrial policies, but they should be disciplined by competition policies in order to prevent them from becoming collusive rather than collaborative. The case of India illustrates that a destructive collusive relationship can be changed into a more collaborative one when leaders and elites manage to establish developmental coalitions (Aivelu et al., 2009).

### **Lessons for Trade-related Infrastructure**

The experiences in China, India and Brazil illustrate how overlapping challenges that impede private sector financing of infrastructure finance can be tackled and offer lessons for LICs in terms of infrastructure development and financing. It is important to establish a favourable institutional environment for infrastructure development, look for domestic institutional investors, seek foreign investment with the support of the public sector, for example by providing credit guarantees, and support public–private partnerships (PPPs) and private participation in infrastructure, for instance by enhancing upstream preparation involving sector, policy and legal and regulatory reforms (e.g. Bond et al., 2012; Croce, 2011; Leigland, 2010; Walsh et al., 2011).

### **Lessons for Trade Facilitation**

Following the example of China, India and Brazil, it is essential for LICs to boost the use of information and communication technology (ICT), promote electronic data interchange (EDI) and single window facilities for submission and processing of information and documents, support the harmonisation of documentary requirements across countries, minimise physical inspections, in particular through adoption of risk management techniques, and introduce industry- and sector-specific trade facilitation initiatives, such as for agricultural products or low-valued exports (e.g. ARTNeT and UNNExT, 2012; OECD, 2012). While these trade facilitation approaches offer the potential to enhance a country's trade performance, improvements in trade performance also call for tackling the supply-side constraints to a country's potential to make use of improved trading conditions.

### **Lessons for State-business Relations**

Effective state–business relations require safeguarding buy-in from all actors, addressing vested interests that resist reform and creating a sound framework for competition. Capacity building and safeguarding buy-in from all actors regarding state–business relations necessitate a strong state that is highly committed (te Velde, 2010c). Tackling vested interests requires coordination among other interest groups that can benefit from reform (Ellis and Singh, 2010). Competition authorities can be important for facilitating the coordination of such groups. Creating a sound framework for competition is essential to making markets work efficiently to generate growth and development (Ellis and Singh, 2010). Moreover, effective state-business relations in special economic zones (SEZs) can contribute to growth and a successful trade performance.

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# 1 Introduction

Emerging economies have successfully supported their trade performance. This report reviews the cases of China, India and Brazil to describe which major activities they have implemented to improve their trade performance. Its specific contribution is to examine how the countries have facilitated trade, focusing on the provision of infrastructure, trade facilitation and state–business relations. Based on a review of the current literature, the report also reviews lessons that might be learnt in low-income countries (LICs) from these experiences.

The main part of this report reviews the following activities: promoting trade-related infrastructure, trade facilitation and effective state–business relations. The report puts the spotlight on support to these three activities because of their importance for trade performance. The high cost of trading in many emerging economies and developing countries is a major obstacle to the improvement of their trade performance and the benefits this can generate. These costs are often the result of poor-quality infrastructure and slow and cumbersome procedures at the border.

Support to trade-related infrastructure and trade facilitation seeks to address these binding constraints. Recent research underlines that these activities are effective in improving trade performance (e.g. Duval and Utoktham, 2011; Francois and Manchin, 2007; Helble et al., 2009; Moïse et al., 2011; Nordås and Piermartini, 2004; OECD, 2012; Portugal-Perez and Wilson, 2011). For example, Cali and te Velde found that a \$1 million increase in Aid for Trade funding directed towards trade-related infrastructure can generate a 6% reduction in the cost of packing, loading and transporting goods (Cali and te Velde, 2011). Research on aid effectiveness found that each \$1 of aid for trade facilitation can translate into \$70 in exports for recipients (Helble et al., 2009).

Cooperation with the private sector – and state–business relations more generally – can also contribute positively to trade performance. Effective state–business relations can enhance economic performance, for instance, through more efficient government spending and better growth and industrial policies. The private sector can contribute to fostering countries' trade performance, for instance by developing human capacity through training, introducing innovation and technology, supporting the integration of producers in global value chains and undertaking trade facilitation programmes (e.g. Ash, 2011; Rugwabiza, 2011; Simumba, 2009; te Velde, 2010a).

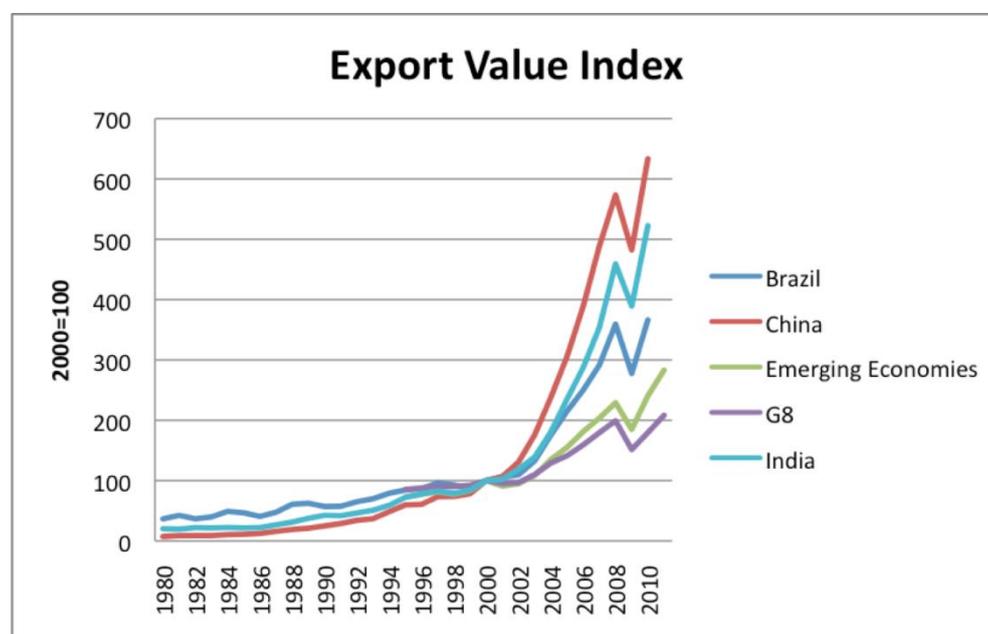
The report is structured as follows: Section 2 presents the successful trade performance of China, India and Brazil, and outlines the framework for analysis, focusing on three types of activities that are key to successful trade performance: support to trade-related infrastructure; trade facilitation; and state–business relations. The three following sections review these three types of measures in three case studies, of China, India and Brazil. Finally, the report concludes with a summary of findings and recommendations on the way forward in Section 6.

## 2 Successful trade performance in emerging economies

### 2.1 Trade performance in China, India and Brazil

Emerging powers like China, India and Brazil have successfully supported their exports and their trade performance more generally. Figure 1 shows how China, India and Brazil's export values, the current value of exports (free on board – f.o.b.) converted to US dollars and expressed as a percentage of the average for the base period (2000) has increased over the past three decades.

**Figure 1: Export value index, 1980-2010 (2000=100)**



Source: UNCTAD

Sections 3, 4 and 5 present the three country cases and focus on the question: what makes China, India and Brazil successful in terms of their trade performance?

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## 2.2 Introducing the framework for analysis

Three main factors behind a country's trade success are as follows:

- *Productive capacity*, that is, the capacity of a country to produce goods and services. Building productive capacity includes business development and activities aimed at improving the business climate.
- *Regulatory frameworks*, that is, an appropriate institutional framework and supportive regulatory environment.
- *Market access and trade promotion*, which includes the trade barriers a country faces for its exports and those that exist for imports, and also refers to policies aimed at increasing a country's or company's exports.

The main part of this report reviews three types of activities that can strengthen and improve the factors behind trade success outlined above. It focuses on the following activities: promoting **trade-related infrastructure** (Section 2.2.1), **trade facilitation** (Section 2.2.2) and effective **state–business relations** (Section 2.2.3).

### 2.2.1 Trade infrastructure

The first part of each country case study presents how China, India and Brazil have supported trade-related infrastructure. Trade-related infrastructure comprises not only roads, railways and ports but also energy, water and telecommunication and, arguably, laboratories for quality, sanitary and phytosanitary (SPS) controls and verification of compliance standards with border posts and associated computer and customs software. There is often a lack of high-quality infrastructure in developing countries owing to market failures in the context of lumpy investments being delayed in uncertain circumstances (te Velde, 2008). Support to infrastructure can help address this market failure, for example by providing incentives for public–private partnerships or grants (ibid.).

The correlation between infrastructure more generally and economic growth and poverty reduction is neither definite nor automatic (e.g. Estache and Fay, 2007; Klitgaard, 2004). But infrastructure provides links to the world market that are important for export competitiveness and manufacturing, which in turn are regarded as vital drivers of economic performance. Empirical evidence indicates that quality of infrastructure is an important determinant of trade performance (e.g. Francois and Manchin, 2007; Limão and Venables, 2001; Nordås and Piermartini, 2004; Portugal-Perez and Wilson, 2011).<sup>1</sup>

Above all, it is the financing of infrastructure that gives rise to severe challenges, especially because the huge scale of the needed investment and the long gestation period call for investors who are able to accept a long timeframe for debt repayment and return on equity, while many financial institutions are not able to invest in such very long-term illiquid assets (Anand, 2010). In addition, infrastructure investments involve non-recourse or limited recourse financing, which implies that market and commercial risks play a greater role for lenders, which in turn necessitates particular appraisal skills (ibid.).

Table 1 presents selected infrastructure indicators for China, India and Brazil, illustrating infrastructure developments that have taken place over the past few years. Sections 3, 4 and 5 review major initiatives that have been undertaken in the three countries to enhance trade-related infrastructure.

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<sup>1</sup> Port efficiency appears to have the largest impact on trade among all indicators of infrastructure. See, for instance, Nordås and Piermartini (2004).

**Table 1: Selected infrastructure indicators for China, India and Brazil**

	China			India			Brazil		
	1994	2002	2008	1994	2002	2008	1994	2002	2008
Transport									
Air transport, freight (million ton-km)	1,717	5,014 (192.02%)	11,386 (127.08%)	564	546 (-3%)	1,234 (126%)	1,469	1,540 (4.83%)	1,807 (17.34%)
Air transport, passengers carried	37,601,000	83,671,798 (122.53%)	191,001,220 (128.27%)	11,518,400	17,633,019 (53%)	49,877,935 (183%)	17,898,600	35,889,538 (100.52%)	58,763,225 (63.73%)
Air transport, registered carrier departures worldwide	325900	932064 (186%)	1853088 (98,82%)	130100	231413 (78%)	592292 (156%)	408300	627878 (53,78%)	647753 (3,17%)
Rail lines (total route-km)	53,992	59,530 (10.26%)	60,809 (2.15%)	62,461	63,140 (1%)	63,327 (0,3%)	4,933		29,817
Railways, goods transported (million ton-km)	1,246,140	1,507,817 (21%)	2,511,804 (66.59%)	249,564	333,228 (33.52%)	521,371 (56%)	133,689	167,731 (25.46%)	267,700 (59.60%)
Railways, passengers carried (million passenger-km)	363,281	480,310 (32.21%)	772,834 (60.90%)	319,365	490,912 (53.72%)	769,956 (56.84%)	1,138		
Roads, paved (% of total roads)			54	55	47 (-14.55%)	50 (6.38%)	8		
Roads, total network (km)			3,730,164	2,142,791	3,383,344 (57.89%)	4,109,592 (21.47%)	1,824,364		
Quality of port infrastructure, WEF			4			3			3

	China			India			Brazil		
	1994	2002	2008	1994	2002	2008	1994	2002	2008
Communications									
Mobile cellular subscriptions (per 100 people)	0	16	48 (200%)	0	1	29 (2,800%)	0	19 (5,176.18%)	79 (315.79%)
Telephone lines	27,295,300	214,222,000 (684.83%)	340,359,000 (58.88%)	9,795,304	41,420,000 (322.86%)	37,900,000 (-8.50%)	12,269,000	38,810,685 (216.33%)	41,235,247 (6.25%)
Telephone lines (per 100 people)	2	17 (750%)	26 (52.94%)	1	4 (300%)	3 (-25%)	8	22 (175%)	2 (-90.91%)
Fixed broadband Internet subscribers (per 100 people)		0	6		0	0		0	5
Energy									
Electric power consumption (kWh per capita)	727	1185 (63%)	2457 (107.34%)	335	400 (19.40%)	564 (41%)	1567	1811 (15.57%)	2237 (23.52%)
Electric power consumption (GWh)	866,475	1,517,192 (75.10%)	3,254,152 (114.48%)	317,294	435,756 (37.34%)	671,878 (54.19%)	249,793	324,682 (29.98%)	428,500 (31.98%)
Water									
Improved sanitation facilities (% of population with access)	32	49 (53.13%)	61 (24.49%)	20	27 (35%)	32 (18.25%)	70	75 (7.14%)	78 (4%)
Improved water source (% of population with access)	73	83 (13.70%)	89 (7.23%)	75	83 (10.67%)	90 (8%)	91	94 (3.30%)	97 (3.19%)

Source: <http://datbank.worldbank.org/ddp/home.do?Step=2&id=4>

## 2.2.2 Trade facilitation

Contrary to common perception, infrastructure like ports, although significant, is not the most important impediment to trade; almost half of the holdups in the trading process are the result of burdensome pre-arrival procedures (World Bank, 2007). These cumbersome procedures could in turn be addressed through trade facilitation measures. There is no generally agreed definition of trade facilitation (Tantri and Kumar, 2011). In a strict sense, trade facilitation measures refer to steps undertaken to reduce the transaction costs of conducting business across the border. The World Trade Organization (WTO) defines trade facilitation as ‘the simplification and harmonization of international trade procedures’ covering the ‘activities, practices and formalities involved in collecting, presenting, communicating and processing data required for the movement of goods in international trade’ (OECD, 2005).<sup>2</sup> Recent research on how aid spent on trade facilitation relates to trade flows indicates that the trade initiating effect of one dollar spent on measures directed towards trade policy and regulation reform are considerably higher than the trade creation from investments in other areas of trade support (Helble et al., 2009). Above all, the efficiency of customs has considerable effects on trade-related costs and the performance of trade administration.

The benefits of trade facilitation measures typically more than compensate the cost of such reforms and frequently exhibit a rather brief payback period (Engman, 2005b). Complex or inefficient border measures activities could raise the cost of goods by between 2% and 15% (OECD, 2005). Duval and Utoktham (2009) provide data that indicate that a 5% reduction in the cost of imports in the importing country can expand imports by 1.5%, while an analogous drop in the cost of exporting can raise exports by 4.2%. Wilson (2007) illustrates that a 10% decrease in the time at the border of the importer can raise trade by 6%, while a 10% decrease in the number of documents needed by the importer could raise trade by 11%. Other studies (e.g. Fox et al., 2003; Kim et al., 2004; Wilson et al., 2003; 2004) further confirm this relationship.<sup>3</sup>

Doing Business indicators depict a country’s regulatory regime and make out those particular factors that improve trade activities and those that hamper them (Doing Business, 2012). Since 2006, the Trading Across Borders elements of Doing Business mirror the overall official costs of exporting a standardised container (valued at \$20,000), excluding ocean transit and trade policy measures such as tariffs, and represent the most comprehensive source of information on a country’s approach to trade facilitation (see Table 2).

**Table 2: Trading Across Borders 2012 – China, India, Brazil**

Indicator	China	India	Brazil	OECD members
Overall rank	68	127	123	
Documents to export (number)	8.0	9.0	7.0	4.4
Time to export (days)	21.0	16.0	13.0	10.6
Cost to export (\$ per container)	580.0	1,120.0	2,215.0	1,037.5
Documents to import (number)	5.0	11.0	8.0	5.0
Time to import (days)	24.0	20.0	17.0	10.4
Cost to import (\$ per container)	615.0	1,200.0	2,275.0	1,101.9

Source: [www.http://databank.worldbank.org/ddp/home.do?Step=2&id=4](http://databank.worldbank.org/ddp/home.do?Step=2&id=4)

<sup>2</sup> Wilson et al. (2003) use seven indicators including port logistics and administrative transparency and professionalism, whereas Anderson and Wincoop (2004) use policy barriers (tariffs and non-tariff barriers) as one of the indicators. In a strict sense, trade facilitation is concerned only with the reduction in trade transaction costs. However, trade facilitation requires a comprehensive consideration to include the implementation, misuses and measures to simplify implementation and bring down misuses of standards and regulations. See Tantri and Kumar (2011).

<sup>3</sup> For a summarizing review, see also Engman (2005a).

The Logistical Performance Index (LPI) is an additional set of World Bank indicators that offers valuable insights into a country's situation in terms of trade facilitation. The LPI is based on surveys carried out among logistics professionals and generates information (see Table 3) on the efficiency of the customs clearance process (Customs), the ease of arranging competitively priced shipments (International Shipment), the competence and quality of logistics services (Logistics Quality and Competence), the ability to track and trace consignments (Tracking and Tracing), the frequency with which shipments reach consignee within scheduled or expected time (Timeliness) and the quality of trade and transport-related infrastructure (Trade- and Transport-Related Infrastructure). In 2012, China attained rank 26, while India and Brazil reached 45 and 46, respectively, out of 155 countries. Table 3 suggests that the efficiency of the customs clearance process is the relevant bottleneck for all three countries that offers most room for further improvement.

A recent Organisation for Economic Co-operation and Development (OECD) project constructed 16 trade facilitation indicators, composed of some 98 variables, whose values are drawn from questionnaire replies as well as publicly available data to better assess which trade facilitation dimensions deserve priority (OECD, 2012). According to the OECD, for LICs, the trade facilitation measure that yields the greatest increases in trade flows is the harmonisation and simplification of documents.<sup>4</sup>

While there is still potential for future enhancements, China, India and Brazil have all made progress in terms of trade facilitation in the recent past. Their main initiatives in this regard are presented in the country case studies.

**Table 3: Logistics Performance Index 2012**

Country	Rank (of 155)	LPI	Customs	International Shipment	Logistics Quality and Competence	Tracking and Tracing	Timeliness	Trade- and Transport-related Infrastructure
Brazil	45	3.13	2.51	3.12	3.12	3.42	3.55	3.07
China	26	3.52	3.25	3.46	3.47	3.52	3.80	3.61
India	46	3.08	2.77	2.98	3.14	3.09	3.58	2.87
OECD members		3.60	3.40	3.42	3.60	3.66	3.90	3.64

Note: 1 = very low; 5 = very high.

Source: <http://databank.worldbank.org/ddp/home.do?Step=12&id=4&CNO=2>

### 2.2.3 State–business relations

The nature of state–business relations is a key driver of efficient skills development, capital formation and, ultimately, higher productivity, which in turn is an important driver of competitiveness and trade performance (te Velde, 2010b). State–business relations ‘embody formal and informal rules and regulations that are designed to perform economic functions, such as solving information-related market and coordination failures, and hence will affect the allocative and dynamic efficiency of the economy they reflect’ and ‘the way in which power among different agents, elites and coalitions of interest is shared’ (ibid.). Effective state–business relations consist of benign collaboration between the state and business (Harriss, 2006; Hyden et al., 2004) with formal and informal institutional arrangements (such as business associations) linking the private and the public sector and with mechanisms that safeguard transparency and increase trust between public and private

<sup>4</sup> Across all countries, the most significant trade facilitation measures (i.e. those that have the highest impact on trade volumes) are *information availability*, harmonisation and simplification of *documents*, *automated* processes and risk management, streamlining of border *procedures* and *good governance and impartiality*. See OECD (2012).

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agents. Effective state–business relations can address (i) market and coordination failures and (ii) government failures and can (iii) reduce policy uncertainty (te Velde, 2010a):

### Helping tackle market failures

Effective state–business relations can help solve information-related market and coordination failures regarding, for example, skills development (Lall, 2001), provision of infrastructure, technological development (ibid.) and capital markets (Stiglitz, 1996). For instance, business associations can lobby the government to offer more adequate quality education, which is not likely to be provided by a fragmented private sector in the context of incomplete markets (te Velde, 2010a).

### Helping tackle government failures

Effective state–business relations (e.g. enshrined in effective competition policy) offer checks and balances on government policies (te Velde, 2010a). They may also help ensure that infrastructure provision adheres to high-quality standards and is suitable for the needs of the market – and thereby prevent, for example, situations in which technology institutes are supply-driven and de-linked from the private sector (Lall, 2001).

### Reducing policy uncertainty

Effective state–business relations may help reduce policy uncertainty, which can have noteworthy negative impacts on investment, especially when the investment in question entails large sunk and irreversible costs (Dixit and Pindyck, 1994). Businesses with a good relation with the government may be able to foresee certain policy decisions, but when the relation between state and private sector is too close, collusive behaviour may lead to capture of policy to the benefit of few, not all, firms – which underlines the importance of examining when these relations are collusive in nature and when they are developmental (te Velde, 2010a).

The measurement of state–business relations has so far received relatively little attention. Te Velde (2006) suggests four factors for effective state–business relations:<sup>5</sup> the way the private sector is organised vis-à-vis the public sector; the way the public sector is organised vis-à-vis the private sector; the practice and institutionalisation of state–business relations; and the avoidance of harmful collusive behaviour. For example, to ensure credibility, both the public and the private sector should be organised or institutionalised and a set of competition principles is required to prevent collusive behaviour. For instance, measurement of the role of the private sector in state–business relations can be based on the presence and length of existence of an *umbrella organisation* (see Table 4) linking businesses and associations (ibid.). Moreover, measurement of the public sector in state–business relations can be based on the presence and length of existence of an *investment promotion agency* (IPA) (see Table 5) to promote business (ibid.). The presence, length of existence and effectiveness of *laws protecting business practices and competition* (see Table 6) are measures of avoidance of collusive behaviour (ibid.).

## Table 4: Existence of an umbrella organisation?

Country	Existence	Starting date
China	Yes (ACFIC)	1953
India	Yes (CII)	Founded over 117 years ago
Brazil	Yes (CNI)	1938

Source:

China <http://www.chinachamber.org.cn/publicfiles/business/htmlfiles/qleng/s2569/index.html>,

India [http://www.cii.in/About\\_Us.aspx?enc=ns9fJzmNKJnsoQCyKqUmaQ](http://www.cii.in/About_Us.aspx?enc=ns9fJzmNKJnsoQCyKqUmaQ),

Brazil <http://www.cni.org.br/portal/data/pages/FF80808121B629230121B62A6BE10349.htm>

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<sup>5</sup> Te Velde (2006) was the first study to develop quantitative measures of state–business relation quality (in Sub-Saharan Africa).

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**Table 5: Existence of an investment promotion agency?**

Country	Existence
China	Yes (CIPA)
India	Yes (Invest India)
Brazil	Yes (Apex-Brasil)

Source:

China [http://www.fdi.gov.cn/pub/FDI\\_EN/etcjji/index.htm](http://www.fdi.gov.cn/pub/FDI_EN/etcjji/index.htm),

India <http://www.investindia.gov.in/?q=welcome-to-invest-india>,

Brazil <http://www.waipa.org/members.htm>

**Table 6: Existence of competition policies?**

Country	Existence	Starting date
China	Yes	1993
India	Yes	2002
Brazil	Yes	1994

Source:

China <http://www.apeccp.org.tw/doc/China/Competition/cncom1.html>,

India

<http://search.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DAF/COMP/AR%282012%2946&docLanguage=En>,

Brazil <https://www.competitionpolicyinternational.com/brazil-s-new-competition-law-promising-but-challenging>

The next three sections turn to three country case studies to review the measures China, India and Brazil have taken in order to foster trade-related infrastructure, trade facilitation and state–business relations.

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# 3 Country case: China

## 3.1 Trade-related infrastructure in China

### 3.1.1 Infrastructure investment in China

China's unmatched growth in the past two decades has coincided with immense infrastructure development arisen out of its export-led approach. In light of its focus on exports, China has invested heavily in railways, port facilities, airports and highways (Sahoo et al., 2010; Syed and Walsh, 2012). Particularly in the transportation sector, investment in infrastructure has helped obtain access to markets, reduced costs of production and transportation and enabled China to compete both domestically and internationally (Yan and Hua, 2004).

China's recent and current infrastructure investment is extraordinary. The World Bank estimates that the country spends around 9% of gross domestic product (GDP), building some 200,000 km of roads per year and adding a gigawatt of power generation every other week (World Bank, 2011b). By comparison, Europe and the US spend about 5% and 2.4%, respectively. China's infrastructure development began to speed up in the late 1980s and picked up the pace spectacularly after 2000 (Walsh et al., 2011). While infrastructure investment in China amounted to about 4.4% of GDP in the 1980s, investments began to grow to 7.5% in the 1990s and grew to around 8-9% of GDP in 2010 (Chen, 2010).

### 3.1.2 Support to and financing of infrastructure in China

The fast speed of China's infrastructure development may not be straightforwardly replicated in other countries (Syed and Walsh, 2012). At the same time, it offers lessons for tying infrastructure investment to development objectives. Chinese infrastructure development, a vital part of China's export-led growth strategy, has been spurred both by the government's increasing capability for resource mobilisation and project implementation and by a number of economic and institutional transformations stemming from the economic reform policy (Kim and Nangia, 2010; Liu, 2004). The Chinese government focused on closely coordinating the planning and implementation phases of infrastructure development (Leoka and Guma, 2012). China implemented a dual-benefit approach to infrastructure development, focusing on the promotion of economic growth as well as poverty reduction, for example by combining the development of expressways with programmes that offer direct benefits to the poor (Kim and Nangia, 2010). The centralised political system with comprehensive state control made it possible to take risks and go against the market economy. The latter point can be illustrated, for example, by the so-called 'new plant-new price' policy in the power sector, making consumers pay more for the electricity produced by the new plants compared with the identical service that old plants generated (Kim and Nangia, 2010).

### Supporting infrastructure in China

- One of the main drivers of China's infrastructure boom has been sub-national governments after receiving economic autonomy (Walsh et al., 2011). As a result of decentralization and the 1994 tax reform assigning a larger share of

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taxes to the central government, sub-national governments have become keen to foster economic growth to produce additional revenues (Liu, 2004). To achieve this goal, they started seeking to mobilise financing for infrastructure projects, for example by providing guarantees – implicit and explicit – for bank loans to infrastructure projects and in certain cases subsidies directly for infrastructure special purpose vehicles (SPVs) to increase profits and credit ratings (ibid.).

- Further initiatives, such as the simplification of government review and approval procedures and the introduction of performance criteria, contributed to improving the government capability for the implementation of infrastructure projects (Liu, 2004).
- As a reaction to the 1997 Asian financial crisis, the Chinese government adopted a proactive fiscal policy and raised public investment in infrastructure, in part also to satisfy the strong demand for infrastructure stemming from high growth rates (Liu, 2004). The central government issued bonds to finance large-scale infrastructure development, which contributed to sustaining the continued growth of the economy through the crisis. Regarding the recent global financial crisis, China has launched an even larger economic stimulus package focusing on infrastructure development.<sup>6</sup> China allocated 40% of its \$584 billion fiscal stimulus package to infrastructure projects, focusing on rail, grids, water infrastructure and environmental improvements (World Bank, 2011b).
- Since 2004, China has deregulated the cumbersome and lengthy project approval system for infrastructure, for example such that government approval will no longer be needed for projects not funded by the government (Chen, 2010).
- In the context of the 12th Five-Year Plan's (2011-2015) annual GDP growth target of 7% and the search for alternative sources of finance, infrastructure investments are increasingly being opened to private capital, for example by relaxing the rules on qualified foreign institutional investors (QFIIs) and other forms of direct and indirect investment (KPMG, 2013; Shao and Yao, 2013).
- In September 2012, the National Development and Reform Commission (NDRC) approved the launch of 55 major infrastructure projects (Back, 2012; KPMG, 2013).

### **Public–private partnerships in China**

In China, public–private partnerships (PPPs)<sup>7</sup> have been implemented for over two decades.<sup>8</sup> From 1990 to 2011, there were 1,018 infrastructure projects with private participation in China in sectors like energy, telecom, transport, water and sewerage, with a total investment of \$116.4 billion (World Bank, 2013). To promote the implementation of PPPs in China, a series of policies have been introduced, for example the Opinions on Acceleration of Privatization Process of Public Facilities in 2002 by the Ministry of Construction (M. Wang, 2013).

While numerous PPPs have been successful, PPPs frequently give rise to various challenges in China (e.g. Liu and Yamamoto, 2009). For example, there is no adequate administrative framework for PPP projects. And, while the approval of a PPP project involves a number of

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<sup>6</sup> The impact on the private sector's participation in infrastructure is still unknown but may be very limited, according to data collected by the Public–Private Infrastructure Advisory Facility (PPIAF) so far. See Chen (2010).

<sup>7</sup> The term 'PPP' refers to a number of models of public–private cooperation to mobilise finance and improve the efficiency of public services and other public functions (Girishankar, 2009).

<sup>8</sup> Findings from a recent survey in China indicate that the success factors that are perceived as most important for PPPs in China refer to a stable macroeconomic environment, shared responsibility between public and private sectors, a transparent and efficient procurement process, a stable political and social environment and judicious government control. See Chan et al. (2010).

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different government departments, it is frequently ambiguous which one is authorised to negotiate and sign a contract (M. Wang, 2013). Moreover, while China's Tendering and Bidding Law requires the tendering process to be open and fair, there are numerous cases of bribery (Nunns, 2012). Since PPPs represent a relationship between the government and private actors that resembles a principal-agent relation in which the distribution of information is asymmetric, they often trigger 'strategic behavior' (ten Heuvelhof et al., 2009). Information asymmetries enable private actors to shirk from making serious work efforts or refuse to behave in line with the interests of government and can involve adverse selection *ex-ante* to the contract period (tendering process) and moral hazard during the contract period (Rui et al., 2008). Empirical research has shown that a variety of forms of strategic behavior have emerged in Chinese expressways, including tendering, construction, operation and maintenance. For instance, in the Shen-Da expressway, 222 jerry-built locations have been found after 10 years of operation, above all foundation deformation and cracks in and sinking of the road surface (ibid.).

With the growing interest in PPP projects, the Chinese government has begun to train its officials to improve their professional skills in order to enhance capacity in PPP operations or has recruited expert consultants to take account of lacking expertise regarding specific dimensions of PPP projects (M. Wang, 2013).

China's plans for infrastructure development are ambitious and the targets are usually achieved in time:

- **Roads:** The 11th Five-Year Plan envisaged an increase in the National Trunk Highway System (NTHS) to 65,000 km by 2010 (KPMG, 2009) but, in part because of the 2008 government stimulus package, at the end of 2010 the NTHS network was actually over 74,000 km (KPMG, 2013). The 12th Five-Year Plan has indicated increases in the NTHS with a target of 83,000 km by 2015. While most highway and expressway construction is traditionally undertaken by local city governments, this puts considerable stress on their fiscal budgets – yet, since the first Build, Operate and Transfer (BOT) concessions for PPPs were established in the 1990s, the private sector has been more actively encouraged to participate in the toll roads sector (KPMG, 2013). Today, more than 70% of the world's toll roads are within China but the private sector is still only a small player in greenfield construction, providing only around 7% of expressway financing in China (Thomas White, 2011).
- **Railways:** On the basis of annual investments of RMB 800 billion in railway infrastructure, the 12th Five-Year Plan aims at a total high-speed track of 40,000 km to be finished by 2015. However, the July 2011 Wenzhou rail accident led to a significant reconsideration of planned expenditures, triggering concerns over the safety and reliability of the railway system as well as the financial challenges facing the Ministry of Railways (KPMG, 2013). So far, there have been restricted options to invest directly in railway for the private sector but, given its financial challenges, the Ministry of Railways announced in 2012 that private capital will receive equal market entry access (ibid.). Since QFIIs are now permitted to hold railway bonds, there are now numerous new actors in the market and methods for investing in the railway sector (ibid.).
- **Ports:** Ports and shipping play an important role in the 12th Five-Year Plan. Liaoning Jinzhou Port is the first domestic private capital-held coastal port, a successful case with a record of swift construction and production operations and positive economic benefits (KPMG, 2013). Today, more and more foreign investors are showing interest in port construction, complementing

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the strong involvement of state-owned and domestic privately owned enterprises.<sup>9</sup>

- **Airports:** In the period between 2011 and 2015, the opening of 50 new airports is planned. The latest Catalog for Guidance of Foreign Investment Industries indicates that foreign investors are permitted to take up to a 49% equity interest in the construction and operation of airport activities, including terminals and runways, and that private investors may own up to 100% of regional airports, but are limited to 49% in major airports such as capital cities of provinces and certain large cities. So far, one of the hurdles for private investors airports in China has been the challenge to generate revenue from secondary activities, such as shop leases and car parking (KPMG, 2013).

### Financing infrastructure in China

The major sources of financing for infrastructure projects in China have shifted in the recent past:

- The main source of funding for infrastructure projects have been banking loans, with state-owned commercial banks and policy banks holding around 80% of total infrastructure loan portfolios and bank financing accounting for more than half of total infrastructure financing (Walsh et al., 2011).<sup>10</sup>
- Direct fiscal support for infrastructure development is decreasing (Chen, 2010; Walsh et al., 2011).
- Corporate bonds have increased in importance but continue to account for a small part of total financing as the Chinese bond market is still underdeveloped (Walsh et al., 2011). These bonds have to date mostly been guaranteed by public banks or other associated companies, which have increased credit ratings to allow commercial banks and insurance companies to invest.
- It is remarkable that several infrastructure SPVs are listed in the Chinese stock market, directing funds from the capital market to infrastructure projects (Walsh et al., 2011).
- In 2012, the China Insurance Regulatory Commission (CIRC) decided to allow insurance companies to invest up to 10% of their balance sheets in both real estate and private equity (KPMG, 2013).

#### 3.1.3 Summary: infrastructure in China

China's approach to infrastructure development can be summarised as follows: China has long been the world's largest investor in infrastructure (Syed and Walsh, 2012). Chinese infrastructure development is characterised by strong coordination between policymaking and implementing and the presence of both market-based arrangements as well as traditional centrally planned command economy elements. This approach has been successful since final decision-making authority has continued to be with the central government and since this central control has made it possible to be less risk-averse and to defy the market economy when needed. Chinese reforms have included making use of a trial-and-error approach and have also focused on boosting private and foreign investment against a background of limited foreign participation in Chinese infrastructure as of now. The focus is on planning coherent investment, regularly re-examining infrastructure gaps and reorienting resources (Bredenkamp and Nord, 2010).

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<sup>9</sup> One example of a successful mutual partnership approach in China is the case of the Maersk Group and Ningbo Port signing an agreement to mutually invest and manage parts of Meilong Pier at the Meishan-bonded harbour area (KPMG, 2013).

<sup>10</sup> One of the most significant lenders is the China Development Bank, which was established in 1994 to supply long-term financing for specific projects backed by the state. See Walsh et al. (2011).

At the same time, there are challenges. Rapid infrastructure development has at times led to poor-quality, low-technology service and management (Chuan, 2008). Moreover, recently, collapsing bridges, roads, dikes and dams have been a huge problem. They are often the result of corruption among local officials who subcontract work to friends or inexperienced firms (Nunns, 2012). Between 2009 and 2011, more than 15,000 Chinese officials were punished for construction-related corruption or dereliction of duty (Yuan, 2011), which often occurs in areas related to infrastructure projects, such as land-use approval or public bidding (Xinhua, 2011).

So far, public banks have provided most of the required long-term financing for infrastructure investments in the context of implicit local government guarantees and bond insurance provided by publicly owned banks (Walsh et al., 2011). Private financing increases but deficiencies in the legal and regulatory framework, with slow approval processes, underdeveloped property rights and restricted means of legal remedy, continue to be a barrier to more extensive private participation in infrastructure (Brooks and Zhai, 2008).

## 3.2 Trade facilitation in China

### 3.2.1 Current state of trade facilitation in China

Trade facilitation in China has been successful and is more advanced than in other large emerging economies. A look at China's position in the World Bank's Doing Business rankings illustrates the progress that has been achieved. For example, in 2009, China moved 4 positions up to 44 in the Trading Across Borders indicators (see also Table 7). The documents involved, time and costs in most cases are better or equivalent to the East Asia and Pacific average.<sup>11</sup> Moreover, in 2012, China ranked 26th in terms of the World Bank LPI, having moved up from 35 in 2007.

**Table 7: Trading Across Borders indicators – China**

Indicator	2012	2011	2010	2009	2008	2007	2006	2005
Overall ranking	68	60	50	44	48			
Documents to export (number)	8	8	8	8	8	8	8	8
Time to export (days)	21	21	21	21	21	21	21	23
Cost to export (\$ per container)	580	500	500	500	460	390	390	390
Documents to import (number)	5	5	5	5	6	6	6	6
Time to import (days)	24	24	24	24	24	24	24	26
Cost to import (\$ per container)	615	545	545	545	545	430	430	430

Source: [www.http://databank.worldbank.org/ddp/home.do?Step=2&id=4](http://databank.worldbank.org/ddp/home.do?Step=2&id=4)

### 3.2.2 Measures to facilitate trade in China

The modernization of China Customs started in the mid-1990s. In 1998, China Customs decided to establish a modern customs regime and established a two-step strategy to achieve this objective (Shujie and Shilu, 2010; Wenjing and Wei, 2006). Table 8 presents the core elements and main initiatives of both steps.

<sup>11</sup> Comparing the relative time and costs over the period of the World Bank study seems to indicate that China has reached a saturation level, that is, the number of documents and time to import and export have remained stagnant since 2007. However, a comparison with the leader of the rankings (Singapore) shows the potential for improvements, particularly in the time involved in business-to-business activities. See Ramasamy (2011).

**Table 8: Customs modernisation in China**

Phase	Core element	Main initiatives	Target
I (1998-2003)	Custom clearance system reform	<ul style="list-style-type: none"> <li>• Modern customs legislation</li> <li>• Modern customs compliance management, computerisation and application of information and communication technology</li> <li>• Modern customs processing</li> <li>• Enhanced logistics control and supervision</li> <li>• Post-clearance audit</li> <li>• Enhanced internal administration</li> <li>• Public relations</li> </ul>	'Limbs' function well (functions are carried out effectively and efficiently)
II (2004-2010)	Establish and enhance a risk management system	<ul style="list-style-type: none"> <li>• Comprehensive revenue collection regime</li> <li>• Efficient anti-smuggling enforcement</li> <li>• Modern customs control</li> <li>• Updated management of customs bonded areas</li> <li>• Smarter customs statistics</li> <li>• New model of post-clearance audit</li> <li>• Management of entry ports</li> </ul>	Smart in 'mind' (risk management is implemented at all levels, modern technology plays a more important role)

Source: *Development Strategy for the Establishment of the Modern Customs System (2004-2010)*, cited in Shujie and Shilu (2010)

**First reform phase (1998-2003)**

Important developments in customs clearance during the first reform phase until 2003 include (Wenjing and Wei, 2006):

- Adoption of information technology to transfer customs clearance-related legal, regulatory, systematic and operational procedures into computer instructions or variables, so as to formalise bill inspection;
- Screening of various ports, supervision and administration authorities, standardisation of goods transportation enterprise management and transportation vehicles and use of advanced technology equipment in some key ports customs;
- Fast customs clearance in ports, minimising time spent in customs supervision and administration and accelerating the movement of goods;
- Nationwide use of fast customs transfer operation, and incorporation of the 'one-stop, single-window' approach to customs transfer between inland and ports or between different customs;<sup>12</sup>
- Joint selection by China's General Administration of Customs and Ministry of Commerce of 'facilitative customs', strongly supporting the export of large-scale high-technology enterprises;
- Piloting of a 'paperless customs clearance' project;
- Implementing of the 'e-Customs Project' network connecting national customs, increasing customs administration effectiveness;
- Provision via the 'e-Ports Project' of data exchange and networked joint inspection between different government departments and different regions, enhancing overall performance in ports administration and the efficiency of import and export procedures for enterprises.

<sup>12</sup> See also Tsen (2011).

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## Box 1: Effects of reforming customs clearance in China

As part of its Fast Customs Clearance System during the first reform phase of China Customs, the Chinese government undertook considerable efforts in trade facilitation and establishing new port management and operation mechanisms from 2001 and, as a result, customs clearance efficiency has improved greatly (Wenjing and Wei, 2006). Before the reforms, the average time spent in customs clearance was 2.2 days; after the reforms, the time spent was 1.5 days; similarly, the average time spent in customs clearance in Shenzhen land port for each vehicle transferred to other customs was 30 minutes; after the reforms, it was 1 minute; after the reforms of express customs transfer in the Yangtze River Valley, the number of procedures of customs clearance for exported goods was reduced to 5 from 8, and that for imported goods to 4 from 11, and the number of items for which fees are charged has been reduced to 1 from 3.4.

### Second reform phase (2004-2010)

In 2003, Chinese Customs initiated implementation of the second phase of the Modern Customs System to be undertaken between 2004 and 2010 with the goal of establishing a 'smart' customs based on risk management best practices and reforming customs into a scientifically managed, highly efficient and uncorrupted modern system (Shujie and Shilu, 2010; Wenjing and Wei, 2006). The following are vital elements of China's strategy in the second reform phase (Wenjing and Wei, 2006).

**Adoption of the WTO valuation agreement principles:** Starting 1 January 2002, China Customs began full implementation of the WTO valuation agreement (Wenjing and Wei, 2006).

**Automation and information technology in customs clearance:** China Customs used more and more technology for administrative management and customs clearance supervision. For example, electronic processing limits the time and cost of international trade substantially (Shujie and Shilu, 2010).

**Electronic Data Interchange (EDI):**<sup>13</sup> EDI Customs Clearance Engineering was established formally in China in 1992, having been updated in 2005 and generating the following results (Mengchao, 2011). Up to 2010, the number of enterprise users exceeded 0.55 million. Daily processing capacity reaches 1.2 million items. In 2009, the amount of online taxation payment to customs was RMB 39.06 billion nationwide, accounting for 42.4% of taxation entering into the national treasury. This had tripled compared with 2004. In 2008, the export receipt and settlement of exchange online verification system was running successfully. By the end of 2010, it registered over \$65 billion.

**Paperless customs clearance:** The highly successful paperless clearance procedures have been expanded to most customs districts of the General Administration of Customs since their launch in 2001. The paperless process has greatly increased the speed of customs clearance: the minimum time spent for exported goods is 5 minutes, and the maximum is 2.85 hours, while the minimum time spent for imported goods is 3 hours, with a maximum of 32.25 hours (Wenjing and Wei, 2006).

**Electronic customs:** Since 2004, enterprises have been able to complete customs procedures over the internet, including declarations for customs clearance, submissions for examination, verification and writing-off of settlements and sales of exchange and export refunds. Since 2006, 90% of export declarations for customs clearance have been able to be completed within 1 day, and 80% of import declarations for customs clearance within 2 days (Wenjing and Wei, 2006).

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<sup>13</sup> EDI is the structured transmission of data between organisations by electronic means and is used to transfer electronic documents or business data from one computer system to another computer system, that is, from one trading partner to another trading partner, without human intervention.

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**Electronic ports:** The General Administration of Customs has established 41 electronic port data branch centres, enabling import exchange payment verification, export exchange receipt verification, import value-added tax verification, declaration, export tax refund, customs clearance and online taxation payment, with the following positive results (Wenjing and Wei, 2006). Already in 2006, the number of enterprises joining the electronic port system exceeded 200,000, and the number of daily electronic bills transactions was 500,000, with the portal website boasting a daily click rate of over 4.3 million. In 2004, ‘electronic ports’ processed a total of RMB 21.1 billion in duties and taxes paid on the website, 15 million bills of declaration for imported and exported goods customs clearance and a daily average rate of 22,000 export refund bills. The time for transmission of electronic data from customs to taxation departments has also been reduced from 1 month to 24 hours. By the end of 2010, there were over 100 e-port projects running online already.

**Integrated and electronic quarantine and inspection:** Using information technology has accelerated the speed of inspection and quarantine (Wenjing and Wei, 2006). In 2005, the computer operation platform of China’s inspection and quarantine facility, the CIQ 2000 system, was updated, contributing to the establishment of a fast customs clearance mechanism. After implementing electronic inspection and quarantine, the time spent on the release of eligible goods reduced by 1 hour. Inspecting the complete process from manufacturing techniques to product packaging helps supervision and inspection authorities receive comprehensive data. Based on a related evaluation from related data, product quality examination procedures can be completed before the products leave the factories. This in turn reduces time spent on inspection and quarantine.<sup>14</sup>

**Working with the private sector:** In 2008, China Customs implemented the Framework of Standards to Secure and Facilitate Global Trade of the World Customs Organization (WCO), which is intended to enhance cooperation between customs and the business circle (Jianqun, 2011). The Sino-Europe Secure and Intelligent Trade Route Pilot Project is the first cross-continental cooperation project to implement the framework, involving Shenzhen Customs in China, Rotterdam Customs in Holland and Felixstowe Customs in the UK and the operators of the ports, some importers and exporters in China, Holland and the UK and customs brokers, transport contractors and other relevant parties in the supply chain of international trade, respectively. In 2011, customs in China and the US carried out a pilot project of Sino-US joint authentication.

**Training provided to customs staff:** With the overall aim of increasing customs clearance efficiency, China Customs has been aiming to develop high-quality customs staff and enhance their professional and managerial skills (Wenjing and Wei, 2006). Currently, training has been carried out among all levels of customs officials to ensure familiarisation with the WTO rules and to reinforce management skills, IT skills and knowledge in classification, valuation, law and technology.

**Trade facilitation in bilateral and regional trade agreements:** Customs has also promoted cooperation with customs authorities in bilateral and regional trade partners in the context of China’s free trade agreements (FTAs), mainly in electronic networking with regard to preferential certificates of origin and customs data exchange, with European and Russian customs, respectively (WTO, 2012).

### 3.2.3 Summary: trade facilitation in China

The implementation of trade facilitation measures has brought down time spent on customs procedures as well as the transaction costs of trade procedures in China. The introduction of paperless trading and the electronic quarantine and inspection framework have reduced the costs for enterprises by around RMB 100 million per year and the implementation of

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<sup>14</sup> Since the Administration of Quality Supervision, Inspection and Quarantine reformed its entry-exit inspection procedures and introduced the direct-release system in July 2008, enterprises exporting certain products may go through inspection in their production area, rather than at ports (WTO, 2010).

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electronic declaration has cut back the time spent on each batch of goods by 30 minutes (Wenjing and Wei, 2006). In late 2007, 85% of the key performance indicator targets of the Second-Step Development Strategy had been achieved (Liu, 2008). Many exporters used e-ports and all export goods were being processed under the H2000 Customs Clearance System (Shujie and Shilu, 2010). Almost all customs operations involved risk management and around 60% of declarations were being automatically processed by the risk management platform (Liu, 2008; Shujie and Shilu, 2010). The total physical inspection rate was cut back to 3.41% (Liu, 2008). The clearance time was also reduced: 84% of exports shipped by sea and 99.7% of exports shipped by other means of transport could be released within eight working hours (Liu, 2008). IT-based customs clearance procedures (known as the ‘golden series projects’, including the ‘golden customs project’, and the ‘golden quarantine and inspection project’) have helped boost tax revenue and prevent the number of smuggling activities (Wenjing and Wei, 2006).<sup>15</sup> In 2010, the average time required for customs clearance was 1.7 hours for exports (2.4 hours in 2008) and 15.5 hours for imports (14.1 hours in 2008) (WTO, 2012). In sum, the comprehensive initiatives taken by China Customs and other agencies help foster a trade-enabling environment and business to increase export competitiveness in an international supply chain.

### 3.3 State–business relations in China

The role of the state, above all the local states, has been the focus of attention in accounting for the impressive rural industrialisation in China that triggered the country’s economic take-off in the early 1980s (Nyberg and Rozelle, 1999; World Bank, 1996). Many researchers argue that local governments in China have played a key interventionist role in establishing collectively owned enterprises and in spearheading rural industrialisation, describing local states as ‘corporatist’ (Oi, 1995; 1999), ‘entrepreneurial’ (Duckett, 1998) or ‘developmental’ (Blecher and Shue, 1996). The central government in China has not been directly involved in local industrialisation but has established policy incentives to promote industrial development by local governments. For instance, since the implementation of fiscal decentralisation policies in the 1980s, local governments have been given the financing responsibilities of public goods and service provision and the prerogative to collect taxes as well as to keep a share of tax revenue – which in turn has made developing tax-contributing industries an essential objective of local governments (Lin and Liu, 2000; Oi, 1999). At the same time, more recent studies suggest that government stakes in corporations and other ways of influence have also had negative effects on enterprise performance (Lihui and Estrin, 2008; Nee et al., 2007; Ong, 2012; Pil and Thum, 2007). In the end, China could be regarded as a state that lies between the two types of a predatory and a developmental state, entailing elements of efficiency and inefficiency, of control and chaos, of relative autonomy and clientelism, of neo-liberalism and neo-corporatism (Howell, 2006).

The numerous special economic zones (SEZs) that emerged after China’s reforms are areas with particular state–business relations. SEZs and industrial clusters are without doubt two important engines of China’s remarkable development and have made crucial contributions to China’s economic success (Zeng, 2011). Shenzhen, for example, has changed from a small town into an enormous economic centre that has influenced the development of the whole Pearl River Delta region, making it the largest, and most successful, SEZ in the world today (Monaghan, 2012). The areas of Shenzhen, Shantou, Zhuhai, Hainan and Xiamen along the Chinese southern coast have been developed as manufacturing hubs and open access to international trade sea-lanes has led to their success. Foremost, the SEZs (especially the first several) have successfully tested the market economy and new institutions and have become role models for the rest of the country to follow (Ruis, 2012).

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<sup>15</sup> For example, the RMB 2.12 billion value of smuggling in 1998 was cut back to RMB 310 million in 1999 and to zero in 2000 after implementation of the networked inspection and supervision of import declaration bills. As a consequence, customs tax revenue has increased, with a total value of RMB 259.057 billion in 2002, RMB 9.825 billion more than that in 2001. See Wenjing and Wei (2006).

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Together with the numerous industrial clusters, the SEZs have contributed significantly to national GDP, employment, exports and attraction of foreign investment. It is estimated that, as of 2007, SEZs (including all types of industrial parks and zones) accounted for about 22% of national GDP, about 46% of foreign direct investment (FDI) and about 60% of exports and generated in excess of 30 million jobs. In 2007, the 54 High-tech Industrial Development Zones (HIDZs) hosted about half the national high-tech firms and science and technology incubators (Zeng, 2011). Recently, China has announced the development of six new African SEZs (Kim, 2013; Ruis, 2012).

The key experiences of China's SEZs and industrial clusters can best be summarised as gradualism with an experimental approach; a strong commitment; and the active, pragmatic facilitation of the state. Some of the specific lessons include the importance of strong commitment and pragmatism from the top leadership; preferential policies and broad institutional autonomy; staunch support and proactive participation of governments, especially in the areas of public goods and externalities; PPPs; FDI and investment from the Chinese diaspora; clear goals and vigorous benchmarking, monitoring and competition; business value chains and social networks; and continuous technology learning and upgrading (Zeng, 2011).

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# 4 Country case: India

## 4.1 Trade-related infrastructure in India

### 4.1.1 Infrastructure investment in India

India is in the process of promoting its infrastructure with a focus on new ports, airports, subways, freight rail, power generation and tolled highways (Ash et al., 2011). The Indian government introduced a \$1 trillion national infrastructure plan covering 2012-2017, double the \$500 billion goal of the past five years, with roughly half this investment expected to come from the private sector. Among headlined projects underway are a \$2.5 billion expansion of the Mumbai subways, construction of a \$3.6 billion Hyderabad Metro Rail system, a \$500 million highway upgrade between Jammu and Udhampur and a \$173 million toll road expansion from Ahmedabad to Godhra; six new dedicated freight rail corridors are also under construction with a Phase 1 cost of \$10 billion (Urban Land Institute and Ernst & Young, 2012). The planned Delhi–Mumbai Industrial Corridor project has featured in a list of the world's 100 most innovative and inspiring infrastructure projects, which is distinctive in its ambition to support trade-related infrastructure in India (Kenny, 2012). The \$90 billion project will stretch across seven states and link the nation's capital, Delhi, with the financial capital, Mumbai, with a high-speed rail line for freight, a six-lane expressway and a 4,000 megawatt power station plus nine industrial zones and twenty-four new cities along the length of the corridor (ibid.).

At the same time, the greatest challenge to India's future growth and trade performance success is arguably the currently poor state of its infrastructure (City of London, 2012). India currently spends 4.7% of GDP on infrastructure, compared to 8.5% of GDP in China and 2.6% in the US. For example, while India's road construction was better than that of China in the early 1990s, this situation has changed radically in the more recent past, for the most part because of limited infrastructure investment in India. Between 1991 and 2002, China's annual investment in its road network increased from about \$1 billion to around \$38 billion, while India's annual investment, starting at a comparable level in 1991, grew to just \$3 billion over the same period (Kim and Nangia, 2010).

### 4.1.2 Support to and financing of infrastructure in India

#### Supporting infrastructure in India

Until recently, the Indian government did not adopt the Chinese approach to infrastructure development in terms of anticipating future demand. India's infrastructure development model had a stronger focus on redistribution, for example emphasising the development of minor irrigation and rural roads as part of anti-poverty programmes in the 1970s and 1980s rather than logistics to enhance growth and overall economic efficiency (Kim and Nangia, 2010).

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The majority of infrastructure reforms in India did not start until the late 1980s and early 1990s.

- After the 1991 fiscal crisis in India, the government implemented a number of reforms to improve the global competitiveness of the economy, acknowledging that the positive impact of these measures would decisively hinge on the enhancement of the Indian infrastructure (Kim and Nangia, 2010).<sup>16</sup> In other words, the development of infrastructure in India was fuelled by the major economic reforms of the Indian economy, which unravelled the former command and control regime, liberalised trade by reducing both tariffs and non-tariff barriers and shifted the Indian state towards a closer and more collaborative relationship with private capital, including FDI.
- In 1994, the government set up an Expert Group for infrastructure development, which suggested that, for India to maintain its annual target growth, a threefold increase in infrastructure investments in absolute levels would be needed and offered a number of recommendation to promote this investment, including privatization (Kim and Nangia, 2010).<sup>17</sup>
- In the early 1990s, the telecom sector was the first one to permit entry of private sector firms in both basic and cellular telephone systems (Kim and Nangia, 2010).
- The government has actively encouraged the PPP model in light of the benefits it offers in terms of cost savings, access to specialised expertise and proprietary technology, sharing of risks with the private sector and leveraging its own share in infrastructure investments.

### **Public–private partnerships in India**

India currently attracts more private investment to its infrastructure sectors than China and Brazil. In 2010, \$75 billion was invested in Indian infrastructure-related PPPs (Urban Land Institute and Ernst & Young, 2012). PPPs have a long history in India (ADB and Economist Intelligence Unit, 2012). Case studies of Indian PPPs can be examined to learn from positive and negative aspects of these examples (Bandgar, 2012).

Many PPPs in India have been successful and offer potential lessons for less developed countries. For example, PPPs have been a success story in the context of a number of airports that have been built. India made use of the PPP model to upgrade and develop the two primary gateways at Delhi and Mumbai, and to construct greenfield facilities in Bangalore and Hyderabad (CAPA, 2012; Ministry of Finance, 2009). Prior to this, all airports in the country, with the exception of Cochin Airport, were operated by the state-owned Airports Authority of India (AAI).

To boost PPPs in infrastructure, the government has introduced two main initiatives: viability gap funding and the India Infrastructure Finance Company Limited (IIFCL) to satisfy the long-term financing needs of potential investors (Gupta, 2009). Since 2009, the awarding of PPP projects in India is subject to requirements such as strategic planning, pre-feasibility analysis, financial viability and PPP suitability, generating a process that is regarded as time-consuming but fair and predictable (City of London, 2012). The introduction of Model Concession Agreements in 2004 has contributed to enhancing risk allocation (ADB and Economist Intelligence Unit, 2012).

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<sup>16</sup> Until 1994, the Indian government did not have a comprehensive framework for infrastructure and the infrastructure planning, regulation, production and supply were typically dominated by public sector state-owned enterprises (SOEs), which generated accountability challenges owing to strong interference by political ‘bosses’ (Virmani, 2005).

<sup>17</sup> The Expert Group’s findings were presented to the government in June 1996 in a report titled ‘The India Infrastructure Report: Policy Imperatives for Growth and Welfare’.

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While India's PPP framework has improved, a number of challenges remain relevant (Lakshmanan, 2008). Recently, the draft of a national PPP policy was released, proposing that each PPP project would be vetted at the central government level, but, as of now, there is no PPP act at a federal level in India (ADB and Economist Intelligence Unit, 2012; FICCI and Ernst & Young, 2012). Moreover, there is a lack of capacity to structure and undertake PPPs and there are many challenges due to red tape and land acquisition problems (City of London, 2012).

Recently, the Indian government took a range of additional measures to promote development of infrastructure by setting a number of sectoral infrastructure targets, improving the monitoring of PPPs and easing land transfer between government agencies for PPP projects (Urban Land Institute and Ernst & Young, 2012).

Encouraging private investment in infrastructure remains a challenge. In the 10th Five-Year Plan (2002-2007), a promising start was made by the central government with PPP in many trade-related infrastructure sectors (Gupta, 2009). Between 2007 and 2012, \$225 billion (equivalent to 12% of GDP) was invested by the private sector in infrastructure, much of it on the basis of PPPs (Economist, 2012). Yet the targets have not been achieved as planned (FICCI National Committee on Infrastructure and Ernst & Young, 2012). There were many hold-ups and merely a quarter of all projects are on or ahead of schedule (Economist, 2012).

- **Railways:** In a major initiative in PPP, container movement, until then a monopoly of the Container Corporation of India, has been thrown open to competition and a number of major private sector entities have been licensed for running container trains on tracks owned by Indian Railways.<sup>18</sup> But many projects are behind schedule owing to insufficient funds, misplaced investment priorities, lack of timely reforms in organisations and inability to attract private investments, and only 1,750 km of new lines was added from 2006 to 2011, as compared with 14,000 in China (FICCI National Committee on Infrastructure and Ernst & Young, 2012).
- **Ports:** The 11th Plan included a larger programme of port capacity expansion based on PPP.<sup>19</sup> The Maritime Agenda proposes an investment of Rs. 1,280 billion in 424 projects in major ports and Rs. 1,680 billion in non-major ports by 2020 with a highly ambitious target of more than 80% of the investment coming from the private sector, given the experience of PPP projects in the ports sector and challenges such as environmental clearances, slow bureaucratic procedures and poor connectivity to the hinterland (FICCI National Committee on Infrastructure and Ernst & Young, 2012). In 2011-2012, the capacity addition was almost nil in major ports for cargo handling (Sreeja, 2012).
- **Airports:** It was planned to involve the private sector in non-aeronautical activities at 35 non-metro airports and in the development of greenfield 'merchant' airports and about 300 airstrips.<sup>20</sup>
- **Roads:** The central as well as a few state governments have engaged the private sector in road development, for instance as part of the National Highways Development Project (NHDP) (see also below).<sup>21</sup> Yet the ambitious targets have not been met yet. In 2009-2010, the National Highways Authority of India was able to build highways at an average of 13.72 km per day, a number that dropped to an average of 10.39 km per day in 2011-2012, clearly falling short of the much higher original target of 20 km

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<sup>18</sup> For more information, see [www.indianrailways.gov.in](http://www.indianrailways.gov.in)

<sup>19</sup> For more information, see [www.shipping.nic.in](http://www.shipping.nic.in).

<sup>20</sup> For more information, see [www.aai.aero](http://www.aai.aero) and [www.dgca.nic.in](http://www.dgca.nic.in).

<sup>21</sup> For more information, see [www.nhai.org](http://www.nhai.org).

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a day (FICCI National Committee on Infrastructure and Ernst & Young, 2012).

### Financing infrastructure in India

The Indian government had understood early it was important to involve the private sector in infrastructure development. In 1997, the Infrastructure Development Finance Corporation Ltd. (IDFC) was incorporated as a specialised financial intermediary for infrastructure. The year 2004 was characterised by a first huge jump in private investment in infrastructure, being present in numerous trade-related infrastructure sectors, including telecoms, ports, airports, power generation and roads (Anand, 2010). For example, India has the largest PPP-based NHDP in the world: over one-half the envisaged 54,500 km has been planned on a PPP toll basis and another one-quarter on a PPP annuity basis (ibid.).

The main current financing approaches for infrastructure in India can be summarised as follows:

- To date, India has managed to boost private investment in infrastructure mostly on the basis of commercial bank financing, notably public sector banks, both direct and indirect. This has caused an increasing concentration of risks in the commercial banks' balance sheets owing to the maturity mismatch generated by financing long-duration infrastructure projects from the essentially short-term nature of banks' liabilities (Lall and Anand, 2009; Rastogi and Rao, 2011).
- Pension funds and insurance companies, while appropriate to fund infrastructure in light of their long-term liabilities, are to date a minor basis for funding infrastructure in India, mainly because of the pre-emption of insurance resources by the government, strict investment guidelines for insurance companies that most infrastructure projects are not able to satisfy and general risk aversion on the side of the insurance companies (Anand, 2010).
- Equity financing is vital to sustain higher debt, and there has recently been more and more activity in both public markets and private equity, but the development of a strong domestic private equity industry is constrained by the small base of domestic investors (Anand 2010).

The government of India has introduced a number of measures to support infrastructure projects, which include the following highlights:

- **Infrastructure debt funds (IDFs):** Recently, India introduced IDFs that show significant promise to facilitate the flow of long-term debt in infrastructure projects by tapping into sources of long tenure savings such as insurance and pension funds, which have so far played a rather small part in financing infrastructure in India (City of London, 2012; Jain and Nair, 2013; Mahajan, 2012). The finance minister also introduced tax incentives for IDFs.
- **Foreign institutional investor (FII):** In 2012, the maximum limit of FII investment in bonds and non-convertible debentures issued by infrastructure companies was increased to \$40 billion and the Ministry of Finance further relaxed the lock-in period and the residual maturity to one year (City of London, 2012; India Brandi Equity Foundation, 2013).
- **Foreign Direct Investment:** To promote infrastructure financing, 100% FDI is permitted under the automatic route in a number of sectors, including mining, power, civil aviation, construction and development projects, industrial parks, telecommunications and SEZs (City of London, 2012).
- **External Commercial Borrowing (ECB) policies:** In 2011, the Reserve Bank liberalised the ECB policy relating to the infrastructure sector by allowing the foreign equity holder to offer credit enhancement for the

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domestic debt raised by Indian companies engaged exclusively in the development of infrastructure without the need for *ex-ante* approval from the Reserve Bank (City of London, 2012).

- **Viability gap funding (VGF):** VGF, introduced in 2006, entails a grant that is provided to attract private investment into the infrastructure sector and to support projects that are economically justified but lack financial viability. (City of London, 2012).
- **India Infrastructure Finance Company Limited:** IIFCL, set up in 2006 by the Indian government and with an enhanced capital base since 2011, offers long-term loans to infrastructure projects, in the context of both direct lending to project companies and refinancing banks and other financial institutions (City of London, 2012). Under its credit enhancement initiative, IIFCL offers partial credit guarantee to improve the ratings of the project bond issue to increase long-term funds from largely untapped sources, such as insurance companies and pension funds (ibid.; Jain and Nair, 2013).
- **Bank financing:** A number of steps have been taken to further enhance bank financing in infrastructure, including permission to invest in unrated bonds in order to promote the supply of credit for the infrastructure sector (City of London, 2012).

#### 4.1.3 Summary: infrastructure in India

In both India and China, the municipal government is an important factor in infrastructure development, and in both countries the potential for private sector funds is immense; however, whereas in China infrastructure is constructed, operated and maintained by different companies established by local governments, in India it is the local government itself that performs these functions, which has made cost recovery less efficient than in China (Brooks and Zhai, 2008).

The future development of India's infrastructure presents a huge opportunity as well as a huge task. The challenges are reflected, for example, in the Indian roads sector. While India's road construction was better than that of China in the early 1990s, this situation has changed radically in the more recent past, for the most part because of limited infrastructure investment in India. India's investment philosophy differed from China's, where the focus was on new arterial networks; India, in contrast, centred attention on rural roads. While China now has a striking road system, India is characterised by an under-sized and over-crowded road network (Kim and Nangia, 2010).

However, toll road projects have proliferated in India, where highway projects account for than half of all projects involving private participation in infrastructure concluded in 1990-2006 and accounted for more investment commitments in 2003-2007 than any other sector apart from telecommunications (Leigland, 2010). High traffic volumes and methods for reducing private partners' risks and costs, such as VGF, have helped promote highway development, but in LICs lower traffic volumes and restricted funding for risk and cost reduction have constrained the use of toll roads (ibid.).

Investment in railroads is difficult owing to direct government ownership and, while several airport privatisations have been a success, investment in port facilities has been slow and energy generation and transmission have been undermined by poor pricing models and regulations (Syed and Walsh, 2012).

The challenges for India's infrastructure sector more generally include major capacity improvements but also additional coordination at the central level and simpler finance structures with more focus on user fees and greater accountability for infrastructure agencies in terms of outputs. Domestic players criticise poor policy frameworks and excessively bureaucratic procedures (Urban Land Institute and Ernst & Young, 2012). Moreover, there are a number of challenges in better involving the private sector, including

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attracting private finance, coordination and implementation issues and ability of the Indian government to carry out PPP projects (Anand, 2010). As discussed above, initial measures have been taken to tackle these challenges, and, while much still needs to be done, first results seem positive. Overall, PPPs in India have been a success so far and can offer lessons for less developed countries.

Despite the various measures that have been taken to promote the Indian infrastructure sector, a number of challenges remain (City of London, 2012):

- **Bank financing:** In India, banks are the main institutions that can assess and deal with construction risk and, while the government has introduced a number of measures to facilitate investments from non-banking sources, investors are still not able to receive consistent returns at par to the risk at stake.
- **Savings:** India has a very high saving rate of about 35%, but very little of these savings are invested in infrastructure, given the absence of effective long-term savings instruments.
- **Corporate bond market:** While a vibrant corporate bond market can amplify the flow of long-term funds and reduce reliance on banks, the Indian corporate bond market, although one of the most developed in Asia, is still nascent.
- **Insurance and pension funds:** Indian insurance and pension funds face constraints to directly invest in the infrastructure sector because of their obligation to invest a large share of their funds in government securities.
- **CDSs:** Since the launch of CDSs in 2011, there has not been much uptake, especially because of lack of clarity on the required documentation, valuation and pricing and board approvals in public sector banks and a lack of knowledge of and exposure to working with derivatives.
- **Bureaucracy, red tape and land issues:** Infrastructure investments in India are frequently hindered by bureaucracy and land acquisition issues, and firms often criticise red tape and lack of transparency in the awarding of contracts as well as a lack of sufficient available debt available to fund new ventures. Land is often the most controversial issue in infrastructure projects. The much-awaited Land Acquisition Bill has still not been tabled in the Lower House of Parliament, but in July 2012 Prime Minister Manmohan Singh relaxed the land transfer policy on government-owned lands, thereby fast-tracking pending infrastructure projects and also reducing the approval periods of newer projects. Key policies and regulation reforms should be fast-tracked for enhanced implementation, including single window clearance approach for approval of infrastructure projects; a robust dispute resolution framework put in place; enhanced monitoring of projects implemented and funding facilitated; and more favourable taxation policies for infrastructure projects introduced, including for foreign investment (FICCI National Committee on Infrastructure and Ernst & Young, 2012).

If no measures are taken to address the above challenges, there is a strong possibility that India will not achieve the \$1 trillion target.

So far, like in China, banks have dominated infrastructure finance in India, but the Reserve Bank has not allowed the same high concentration in infrastructure assets as Chinese banks have taken on. In terms of foreign finance, India has so far relied mostly on multilateral lenders. The establishment of the New Pension Scheme (NPS) shows potential for an extensive growth of assets under management of pension funds and is therefore promising for future infrastructure development in India (Walsh et al., 2011).

## 4.2 Trade facilitation in India

### 4.2.1 Current state of trade facilitation in India

Like in China, in a huge country such as India – with numerous customs clearing points, 12 major ports, 187 minor ports and many private notified ports – effective trade facilitation is a massive challenge (Dominic et al., 2012). In order to foster the clearance of goods in India's hinterland, which limits overcrowding at the port and makes it possible for traders to get goods cleared at their doorsteps, 155 inland container depots (ICDs) and container freight systems (CFSs) are functioning in the country and another 89 such facilities are at different stages of development (ibid.). There are also 36 functional international airports and 138 land clearance stations (LCSs) along India's international borders of which 66 are functional (ibid.).

Yet, while India's performance is still far behind the OECD average, it is better than the South Asian average. And, while there is a rising trend in costs to export and import in recent years, India has successfully managed to reduce documents needed for export and import and time to export and import owing to improved trade facilitation initiatives over the past few years (see Table 9).

**Table 9: Trading Across Borders indicators – India**

Indicator	2012	2011	2010	2009	2008	2007	2006	2005
Overall ranking	127	100	94	97	90			
Documents to export (number)	9	9	9	9	9	9	9	9
Time to export (days)	16	16	17	17	17	18	27	27
Cost to export (\$ per container)	1,120	1,095	1,055	945	945	820	864	864
Documents to import (number)	11	11	11	11	11	11	11	11
Time to import (days)	20	20	20	20	20	21	41	41
Cost to import (\$ per container)	1,200	1,150	1,105	1,040	1,040	990	1,324	1,324

Source: [www.http://databank.worldbank.org/ddp/home.do?Step=2&id=4](http://databank.worldbank.org/ddp/home.do?Step=2&id=4)

While there has been substantial progress in India (Singh, 2009), considerable trade facilitation challenges remain. Preparing the documents for export and import accounts is the most lengthy part of the overall trade procedures, taking eight days both for exports and imports (De, 2011). Estimates indicate that the transactions costs of imports and exports in India is round 15% of the cost of goods (Dominic et al., 2012). Taking account of the total trade of India (including imports and exports), valued at \$490 billion (2008-2009), the transaction costs amount to nearly \$75 billion (ibid.). If the total time taken for clearance of import and export cargo can be reduced to 5 days from the present 10 days, as suggested by data provided by the Indian Customs Department, there could be considerable savings for the Indian economy (ibid.). Trade facilitation is also vital for enhancing the competitiveness of agricultural exports. India thus needs additional improvements in trade facilitation, complementing the series of trade facilitation measures that have been taken in the past.

### 4.2.2 Measures to facilitate trade in India

Over the past decade, India has taken several steps to facilitate trade at the borders, above all by making trade-related processes user-friendlier and computerising most of them and radically simplifying customs procedures.

#### Indian customs EDI systems

In the 1990s, the Indian Central Board of Excise and Customs (CBEC) introduced the use of IT by launching of the Indian Customs EDI Systems (ICES), which automated the process related to clearance of import and export consignments and introduced remote filing of import and export documents (Dominic et al., 2012). In 1995, the Customs Department issued the Bill of Entry (Electronic Declaration) Regulations to make the submission of import details through electronic declarations possible. About 97.5% of all import

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documents are processed electronically (WTO, 2011). EDI facilities are available at 92 customs offices and the facility of 'around the clock' electronic filing of customs documents for clearance of goods is possible at an increasing number of centres.<sup>22</sup>

#### **Electronic commerce portal**

In 2002, India further facilitated trade by implementing an electronic commerce portal, ICEGATE (Indian Customs and Excise Gateway), which eases the electronic filing of import and export documents and related electronic exchange between customs and the trader, offering a choice of means of communication, including the internet, and a helpdesk on a 24x7 basis (Dominic et al., 2012). There has been a steady increase in filing of customs documents through ICEGATE since its launch and currently about 8,000 import and export declarations are being filed daily by making use of the facility (ibid.).

#### **National Import Data Base**

Moreover, since 2002, the NIDB has been used by the Directorate General of Valuation to accelerate valuation procedures by allowing a comparison with data gathered on the value of recent imports of comparable goods (WTO, 2007). This permits customs officers to take well-informed decisions on valuation and classification of imported goods and to avoid loss of revenue on account of under-valuation or mis-declaration (Chaturvedi, 2007; Dominic et al., 2012; Srivastav, 2003).

#### **Risk management system**

In 2005, India initiated a risk management system (RMS) in order to decide which containers to inspect and selectively screen only high- and medium-risk cargo for customs examination (WTO, 2011). The RMS for processing imports is operational at 48 customs offices; some 85% of India's imports are processed via this system. The launch of the RMS in major customs locations has cut back the average time taken by customs to eight hours, with two hours for assessment and six hours for examination (ibid.).

#### **Accredited Client Programme**

The ACP guarantees clients who are assessed as having a good track record of being highly compliant facilitation by the RMS, which secures faster delivery and reduced transaction costs (Chaturvedi, 2007; Dominic et al., 2012). Customs also works with the custodians at various ports/airports to ensure that the cargo of such units is delivered quickly. As of early 2011, 250 ACP importers are allowed to self-assess their consignments with no need for examination, in line with India's commitments to simplify and harmonise customs' procedures under the revised Kyoto Convention (WTO, 2011).<sup>23</sup>

#### **Trade facilitation in special economic zones**

SEZs offer single window clearance, automation of procedures and trade facilitating on self-certification basis (Tantri and Kumar, 2011).

#### **Trade facilitation in the context of regional integration**

In order to increase trade with neighbouring countries, India has initiated a number of measures in the context of regional integration, including the establishment of integrated checkpoints on the border with Pakistan, Bangladesh, Nepal and Myanmar (Mehta, 2011).

#### **Training provided to customs staff**

The CBEC has launched a number of measures to train officers so they can deal well with reforms and streamlining of the various trade measures, which may eventually contribute to faster clearance of goods (Wenjing and Wei, 2006).

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<sup>22</sup> There are some 300 customs posts in India. According to the authorities, posts that are not automated are mainly remote land stations where trade is almost zero.

<sup>23</sup> See Customs Circulars Nos 42/2005 and 43/2005, 24 November 2005, and Chaturvedi (2009).

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### Facilitating trade at the operational level

In addition to reforms at the policy level, a number of additional trade facilitation measures have been launched at the operational level by various customs houses. For example, Jawaharlal Port has introduced a system of e-payment of duty and customs examinations through computer system even after office hours to speed up the clearance process.

#### 4.2.3 Summary: trade facilitation in India

In India, trade procedures have become more efficient. In the period between 2005 and 2011, the time needed to finish all trade procedures involved in moving goods from factory to ship at the nearest seaport – or vice versa – was cut back by more than 40%, with an 18% reduction being the average for developing economies in the Asia-Pacific region (ARTNeT and UNNEXT, 2012).<sup>24</sup> Especially the implementation of the EDI system in 1994, and the RMS in 2005 at India's major customs offices, has increased the efficiency of border procedures. The number of documents processed through the EDI grew from 3.2 million in 2008-2009 to 8 million in 2010-2011. Between 2007 and 2011, the average time for the completion of export procedures was reduced by 10 days (17 days down from 27 days in 2007), which entails 8 days for document preparation and 2 days for customs clearance and technical inspections (WTO, 2011).

India's ongoing Foreign Trade Policy (FTP) 2009-2014 states that the country aims to turn around the downwards trend of exports (De, 2011). In order to bring down transaction costs, two important policy measures undertaken through FTP 2009-2014 are further procedural rationalisation and, as mentioned above, enhancement in infrastructure related to exports (De, 2011).

### 4.3 State–business relations in India

In the period between independence and the early 1990s, the Indian economy resembled a 'command and control regime'.<sup>25</sup> Such a *dirigiste* system, where the state effectively shaped the investment decisions of the private sector, gave rise to a collusive and rent-seeking relationship between the state and the private sector, which in turn had considerable negative effects for the economic performance of India (Sen, 2010). In the 1980s, the relationship between the state and the private sector changed drastically, which in turn enabled India's sustained economic growth in the following years (Kohli, 2006a; 2006b).

After early signs of a shift after the early 1980s, in 1991 the Indian economy was subject to major economic reforms, the command and control regime ended and the relationship between the Indian state and private capital changed from a hostile towards a closer and more collaborative relationship with the business sector (Sen, 2010). The Indian reforms were targeted at enhancing the economy's flexibility after a balance of payments crisis and focused on abolishing restrictions on manufacturing and trade. During the 1990s, licensing requirements were lifted across many industries, tariffs fell and India's financial markets began to open to the world (Syed and Walsh, 2012).

Recent research has shown that the evolution of state–business relations has varied across Indian states and that these regional variations in the quality or effectiveness of state–business relations can account for variations in economic growth across Indian states (Cali and Sen, 2009). Cali and Sen (2009) also find that the establishment of formal organisations as such does not seem to foster economic growth but that the key elements of the Indian state–business relations that stimulate economic growth are those linked to the actual interactions between states and businesses, which in turn underlines that business

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<sup>24</sup> South-East Asia made the most progress, cutting its average time for completing trade procedures to 20 days. Cambodia and Thailand cut their time by more than 40% during the same period. India and Pakistan achieved improvements of a similar magnitude, although trade procedures in South and South-West Asia still take 50% more time to complete than in South-East Asia (30 days on average).

<sup>25</sup> This account of state–business relations in India is based on Sen (2010).

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associations should focus on enhancing more collaborative relations between states and the private sector. At the industry and firm levels, recent research finds comparable positive impacts of effective state–business relations on industrial productivity growth and manufacturing firm performance in India (Kathuria et al., 2010). The case of India also demonstrates that a negative collusive relationship can be modified into a more collaborative relationship if leaders and elites manage to form developmental coalitions (Aivelu et al., 2009).

In 2005, the government of India passed the Special Economic Zones Act to promote exports, investments and employment generation on the basis of various fiscal benefits and relaxations.<sup>26</sup> Most Indian SEZs are related to IT and IT-enabled services. Roadblocks for SEZs in India are land acquisition issues and inadequate infrastructure outside the notified SEZ areas. However, overall, the scheme has been very successful, receiving a good response from developers and investors, and thus offers lessons for LICs (Maharashtra Economic Development Council and PricewaterhouseCoopers, 2008).

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<sup>26</sup> For more details, see also [www.sezindia.nic.in](http://www.sezindia.nic.in).

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# 5 Country case: Brazil

## 5.1 Trade-related infrastructure in Brazil

### 5.1.1 Infrastructure investment in Brazil

The current state of Brazil's infrastructure is relatively good in comparison with other South American countries (Mourougane and Pisu, 2011). The assessment is less positive compared with other regions in the world but there has been a process of catching-up in certain sectors such as telecommunications (Calderón and Servén, 2004). The present state of infrastructure in Brazil mirrors the lack of adequate investment over at least three decades (Mourougane and Pisu, 2011). Infrastructure spending in Brazil has by and large been decreasing over the past 40 years, averaging 5.4% of GDP during the 1970s, 3.6% in the 1980s, 2.3% in the 1990s and 2.1% in the 2000s. Brazil's overall investment-to-GDP ratio has averaged only 17% over the past five years, well below the levels of China (44%) and also India (38%) and Russia (24%), the other BRIC economies (Morgan Stanley, 2010).

**Table 10: Investment plans – infrastructure in Brazil**

	2006-2009	2011-2014		
Sector	R\$ billions	R\$ billions	% of 2010 GDP	Share
Electricity	92	139	1.0	18.4
Telecommunications	62	70	0.5	9.3
Sanitation	26	41	0.3	5.4
Railways	20	60	0.4	7.9
Highways	30	51	0.4	6.7
Ports	5	18	0.1	2.4
Oil and gas	205	378	2.6	49.9

Source: BNDES (2011)

### 5.1.2 Support to infrastructure in Brazil

#### Growth Acceleration Programme (PAC)

In light of the Brazilian infrastructure challenges, in 2007 former President Luiz Inacio Lula da Silva launched a large infrastructure programme and created PAC, then in 2010 a follow-up programme (Centre for Development and Enterprise, 2012; Mourougane and Pisu, 2011; Walsh et al., 2011).<sup>27</sup> The objective was to raise infrastructure investment and advance coordination among the numerous institutions engaged in infrastructure policy, among others, on the basis of the following measures (Mourougane and Pisu, 2011):

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<sup>27</sup> These programmes replaced the Investment Pilot Project announced in 2005. PAC is managed by a steering committee comprising the ministers of the Presidency, Planning and Finance. An executive group is responsible for PAC's implementation and a secretariat helps set targets in PAC projects.

- PAC envisaged \$251 billion in additional infrastructure and other investment over four years, to be financed by the government (\$34 billion) as well as public enterprises and the private sector.<sup>28</sup>
- The first PAC had final outlays of almost R\$570 billion for the 2007-2010 period (Lewis, 2012).
- PAC exempted specific capital and goods related to infrastructure investment and construction from some federal taxation through the Special Incentive Regime for Infrastructure Development (REIDI), and aimed at creating a tax-exempt national investment fund to finance infrastructure projects.
- PAC further strengthened the position of the publicly owned Brazilian Development Bank (BNDES), which dominates long-term private sector corporate finance (see also below). The bank decreased spreads for infrastructure projects strongly and prolonged the terms of some of its loans. From only \$3.4 billion in 2003, BNDES lending for infrastructure projects rose to \$17.5 billion in 2008 and \$25 billion in 2009, leading to an increase in the GDP share of public investment to an estimated 3.2% in 2010, with more than 60% of this investment coming from SOEs.
- To tackle contradictory developments at the economy-wide level, the government has increased resources to monitor progress in the infrastructure programmes and publishes a regular progress report.
- In 2011, the management and the implementation of PAC was moved to the Ministry of Planning, but if coordination continues to be a challenge the authorities could deliberate establishing a dedicated agency to oversee infrastructure developments, which would evaluate projects on a common basis and coordinate infrastructure policies by advising central and local governments on priorities and possible financing mechanisms.

Under its PAC 2 Accelerated Growth Programme, the government has committed to spending R\$959 billion on infrastructure projects by 2014 and R\$631 billion beyond 2014, capital which is channelled in part through BNDES (Williams, 2011). By late 2012, PAC 2 had reached 40.4% of its investment goal for the period 2011-2014, spending R\$385.9 billion (\$186 billion) on road, rail, port, power and other projects, according to the Planning Ministry (Lewis, 2012).<sup>29</sup> The government regards PPPs as an essential approach to attain PAC's targets (see also below).

#### **Activities regarding the 2014 World Cup and the 2016 Olympic Games**

For the 2014 World Cup and the 2016 Olympic Games, Brazil is in the process of an enormous transformation. In 2011, the government introduced a policy to accelerate projects by holding a single tender for both public works' design and construction of urban transportation, airport and stadiums projects related to the World Cup. In Rio de Janeiro, Transolímpica is one of the key projects to improve the city's public transportation for the Olympic Games, with a 23 km highway with six lanes – three in each direction with two of the tracks to be used exclusively by buses through a Bus Rapid Transit scheme with 18 stations – an affordable transport solution that could be replicated in other less developed countries (KPMG International, 2012). In São Paulo, Line 4 of the Metro was the first PPP signed by the state, planned to be carrying nearly 1 million people per day (ibid.). The \$1 billion Embraport Project, based in the city of Santos in São Paulo, is a privately owned port with incorporated road and rail infrastructure which will be the largest-ever port project

<sup>28</sup> In this sense, it is similar to India's five-year plans, although in Brazil most public sector investment will be undertaken by public enterprises rather than directly by national and local governments.

<sup>29</sup> For example, PAC 2 projects have already spent R\$26.8 billion to add 1,120 km of new highways throughout Brazil, and are currently improving 22 airports. Airport capacity has been increased by 13 million passengers a year by PAC 2 spending. Electricity generating capacity has been increased by 4,244 megawatt hours thanks to spending of R\$87.6 billion on construction of 52 plants since the start of the PAC 2. See Lewis (2012).

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financing in Latin America on a limited-recourse basis (ibid.). Together with the São Paulo Ring Road project, the two assets will have a considerable impact, easing traffic congestion on land and sea, which will reduce delays and help cargo move more efficiently. Yet, problems in the context of red tape and corruption scandals continue to challenge infrastructure development in Brazil.

### **5.1.3 Financing infrastructure in Brazil**

This section discusses the various investment approaches and instruments that have been implemented thus far.

#### **Bonds**

In Brazil, many bonds are issued in US dollar denomination but the government seeks to raise the number of local bonds issued to relieve the burden at the national level (Fick, 2011; Gregoire, 2011).

#### **BNDES**

BNDES is an essential player for the financing of Brazilian infrastructure. BNDES has granted loans. Moreover, BNDES introduced new financing products for investments in infrastructure (Leal, 2012). For instance, many projects for the new Investment Programme in Logistics are funded by BNDES, entailing a repayment deferral period that ranges from three years (motorways) to five years (railways) (Gregoire, 2011).

#### **Taxes**

While taxes in Brazil are relatively high in comparison to other countries (Pereira, 2010; Selvanayagam, 2010), in 2010, the Brazilian government reduced selected taxes to facilitate infrastructure development (Chagas, 2011; Gregoire, 2011).

#### **Public–private partnerships**

Brazil started to attract private capital into infrastructure development earlier than other Latin American countries and, over the past decade, the private and the public sector have both accounted for about half of total investment in infrastructure (Mourougane and Pisu, 2011).<sup>30</sup>

Brazil is open to the privatisation of its transport infrastructure (Gregoire, 2011; Leal, 2012). In 2004, a new law introduced a distinction between PPPs and concessions and regulated a number of aspects of PPPs such as project selection, bidding, signing and management of projects at all levels of government, providing a favourable environment to benefit from private participation in infrastructure (Mourougane and Pisu, 2011). This law contributed to constrain the frequency of costly renegotiations, which often undermined PPP contracts in the past (Calderón and Servén, 2010).

Although the PPP laws have been in place since 2004, few PPPs have been established since then, in part because the procedure for their formation is highly bureaucratic (Leal, 2012). The current management process of PPPs and concessions should thus be simplified, for instance by consolidating responsibilities among the various authorities involved and offering standardised contracts to reduce some of the transactions costs that PPPs generate (Mourougane and Pisu, 2011). A recent evaluation of PPPs in Brazil underlined strong performances on investment climate, institutional framework and subnational adjustment (Economits Intelligence Unit, 2013).

### **5.1.4 Summary: infrastructure in Brazil**

Infrastructure in Brazil used to be chronically underfunded. While it will take some time, for instance before better transport makes Brazilian goods more competitive on global

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<sup>30</sup> While private participation was initially concentrated in the telecom sector, since 2004, a surge in private projects has been observed in the energy sector and since 2006 in the transport sector. See Mourougane and Pisu (2011).

markets, now, at last, change is underway. At the same time, problems such as red tape and corruption continue to undermine progress.

Against the background of the current infrastructure needs, the Brazilian government has implemented a large infrastructure programme, PAC. While the R\$274 billion in infrastructure investments estimated for 2010-2013 corresponds to 2.2% of GDP, only slightly higher than the average 2.1% of GDP spent in recent years, at least some progress is being made and there are a number of drivers of higher infrastructure spending in the near future, including the 2014 World Cup and the 2016 Olympics and the exploitation of the pre-salt oil reserves.

The main public development bank, BNDES, has provided long-term financing for Brazilian infrastructure. Brazil has been quite successful in mobilising foreign finance, for instance by attracting foreign companies to bid on road projects and to invest in PPPs. Moreover, Brazilian energy companies have managed to issue shares and bonds in international markets, benefiting from sovereign guarantees because the ratings of those companies are contingent on the rating of the sovereign that investors assume would stand behind the company (Walsh et al., 2011). Recently, Brazil witnessed a strong rise in FDI projects: the number of inward investment projects to Brazil has increased since 2007 from 165 to 507 in 2011, respectively (Ernst & Young, 2012).

## 5.2 Trade facilitation in Brazil

### 5.2.1 Current state of trade facilitation in Brazil

While there has been an increase in the costs to export and import, Brazil has reduced the time to export and import over the past few years (see Table 11).

**Table 11: Trading Across Borders indicators – Brazil**

Indicator	2012	2011	2010	2009	2008	2007	2006	2005
Overall rank	123	121	114	100	92			
Documents to export (number)	7	7	7	7	7	7	7	7
Time to export (days)	13	13	13	12	14	18	18	18
Cost to export (\$ per container)	2,215	2,215	1,790	1,275	975	825	630	630
Documents to import (number)	8	8	8	8	8	8	8	8
Time to import (days)	17	17	17	16	19	22	24	24
Cost to import (\$ per container)	2,275	2,275	1,975	1,385	1,220	1,185	1,090	1,090

Source: [www.http://databank.worldbank.org/ddp/home.do?Step=2&id=4](http://databank.worldbank.org/ddp/home.do?Step=2&id=4)

According to a study by the Brazilian National Confederation of Industry, the exchange rate and the costs associated with infrastructure and customs bureaucracy are the major barriers to the competitiveness of Brazilian exports, pointing to the numerous documentation requirements and official regulations, the lack of automation and use of IT and the need for modernisation of border-crossing administration (Gregory, 2009). In light of these challenges, the Brazilian government has created an inter-ministerial working group with the goal of reducing and simplifying complex procedures and regulations.

### 5.2.2 Measures to facilitate trade in Brazil

Over the past years, Brazil has sought to make import and export transactions less cumbersome and continued to take gradual steps to simplify and modernise its customs procedures.<sup>31</sup> For example, Brazil introduced an express import declaration regime for frequent importers, and reduced by 26% the number of rejected import declarations (WTO, 2009).

<sup>31</sup> The Secretariat of Foreign Trade (SECEX), in the Ministry of Development, Industry and Foreign Trade, is responsible for formulating regulations to implement import measures. The Secretariat of Federal Revenue of Brazil, in the Ministry of Finance, is responsible for customs administration, including duty collection.

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### **'Blue line' regime**

In 2004, in order to improve its efficiency, customs introduced the 'blue line' regime, through which goods of authorised importers with strong internal control systems in place are preferentially directed towards the so-called 'green channel', for which clearance is automatic.

### **Scanners**

Since 2006, the unloading of imported cargo for physical inspection may be exempted where customs premises are equipped with scanners that permit non-invasive inspection, substantially reducing customs clearance time.

### **EDI systems**

In 2008, Brazil facilitated trade by updating its EDI system for customs. In 2009, the government established a computerised information system that processes all customs procedures, monitors imports and facilitates customs clearance. Known as the Foreign Trade Integrated System (SISCOMEX), this reduces the time needed for export and import procedures by facilitating and decreasing the amount of paperwork previously needed for importing into Brazil.

### **Paperless ports**

To exempt companies from filling in about 935 fields in different forms before products can enter the country, hindering the import process, the Brazilian government has worked on introducing a paperless ports system to reduce the use of forms and synchronise requirements for entry across the country (Moraes, 2011).

### **Preferential processing**

In 2011, Brazil provided customs authorities with better oversight of domestic companies by improving their ability to audit their operations – offering benefits to the companies that satisfy the required regulations through faster processing of their import transactions.

### **Customs cooperation**

Brazil has numerous customs cooperation agreements, including with the U, Argentina, Bolivia, Chile, Colombia, Costa Rica, Cuba, the Dominican Republic, Ecuador, El Salvador, Haiti, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Portugal, Spain, Uruguay and Venezuela.

### **Trade facilitation policies for low-valued exports**

In 1999, Brazil introduced very successful trade facilitation policies for low-valued exports, on the basis of the postal network, in order to simplify cumbersome and costly export formalities and address the problem of limited access to an affordable transport means. The scheme is targeted primarily at small and medium-sized enterprises, helping ship their products abroad quickly. More specifically, the Brazilian government implemented a simplified export procedure for low-valued exports of value less than \$10,000 through the Simplified Export Declaration (DSE) and has in so doing considerably cut back the number of steps needed to register an export. DSE exports have been growing in terms of value since their inception in 1999, with the postal sector being responsible for carrying almost half of these exports and with logistics and consolidators transporting the rest (Caron and Ansón, 2008). The number of exporters has stabilised at around 8,000, which represents almost 40% of total Brazilian exporters, a majority of which would not have otherwise exported (*ibid.*). Since 2000, \$1.8 billion worth of goods has been processed by *Exporta Fácil* and more than 12 million businesses have used the scheme; in 2012 alone, the programme enabled \$170 million worth of exports to leave the country (Universal Postal Congress, 2012).

### **5.2.3 Summary: trade facilitation in Brazil**

There are particularly useful lessons to be learnt from the Brazilian experience in trade facilitation policies for low-valued exports. These types of policies might be appealing for

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several countries, such as Peru, which has already implemented similar schemes – including for LICs. The programme has already been rolled out in Colombia, Ecuador, Peru and Uruguay, after being modified to suit local conditions, while Argentina, Bolivia and Chile are in the process of adopting similar schemes and Serbia has implemented its own programme based on the Brazilian model (Universal Postal Congress, 2012).<sup>32</sup>

### 5.3 State–business relations in Brazil

In response to the Great Depression and the economic recession it generated, Brazil focussed on an import substitution and industrialisation (ISI) strategy, which was kept basically until 1990 (Lima and Hirst, 2006) and was rather favourable of industrial sector interests. After the recession, a corporatist state structure with close ties between state and business was developed, while industrial interest organisations were set up in sector-specific organisations and state-level industrial federations (Christensen, 2009). In the period until the 1990s, there was a propensity towards pro-business policies, which were combined with the repression of labour during the dictatorship (1964-1985), moving Brazil close to the authoritarian Asian developmental state (Pedersen, 2008). Yet Evans (1995) suggests that the nature of the Brazilian state was between being developmental and predatory in light of its fragmented nature and the inclination towards informal relationships between bureaucrats and the interests of the private sector.

After the balance of payments crisis in 1980, the focus was on economic stabilisation on the basis of economic liberalisation and privatisation (Lima and Hirst, 2006). During the Cardoso governments (1995-2002), there was an inclination to pursue more autonomous policies and shut down the channels for private sector influence on government policy to some degree (Pedersen, 2008). Yet, eventually, the private sector became an increasingly well-organised player in the state–business relationship before Lula came to power (Christensen, 2009).

While President Lula was in power, the government continued to pursue a policy of economic openness and strict macroeconomic policies in order to keep stabilising the Brazilian economy but, in contrast to the neoliberal development strategy of the 1990s, there was a stronger focus on state activism and the promotion of novel competitive economic sectors assisted by state action in the area of industrial policy and international trade policy, shaped through dialogue and cooperation between the business sector and the state (Christensen, 2009). Overall, the relatively business-friendly policy environment during the Lula presidency in combination with its autonomous policy formulation suggests that Brazil can be regarded as a developmental state characterised by the embedded autonomy of the state.

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<sup>32</sup> See also Guasch (2008). In addition to the trade facilitation measures mentioned above, since August 2011 Brazil has implemented a variety of economic and tax measures under the Greater Brazil Plan, including a tax incentive programme that is designed to benefit Brazilian exporting companies. See de Meijer (2012).

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# 6 Lessons: what can we learn from emerging economies?

The final section of this report pulls together lessons from the experiences of China, India and Brazil in promoting export success reviewed in the previous sections. This section reviews differences and similarities between the approaches in the three countries with respect to trade-related infrastructure (Section 6.1), trade facilitation (Section 6.2) and state-business relations (Section 6.3). It also suggests what this might imply for LICs.

## 6.1 Lessons for trade-related infrastructure

China managed to build infrastructure ahead of demand, which contributed to promoting exports and economic growth. China's centrally planned economy made infrastructure reforms to some extent less challenging than was the case in India and Brazil, since central control of the economy enabled the Chinese government to take risks and promoted strong integration between planning and implementation (Leoka and Guma, 2012).

The roads sector is an especially vital part of infrastructure, and contributes to successful trade performance by enabling domestic connectivity and links to global connectivity. As demonstrated by the experiences in China, India and Brazil, there should be a balanced approach in terms of focusing on arterial and rural roads, with road quality and conditions as significant as the length and overall coverage of the roads.

Successful infrastructure development involves a number of institutional and policy dimensions, including the way planning and implementation is approached, how the risks are managed and what kinds of incentives and accountability structures are present (Kim and Nangia, 2010). In the recent past, the scarce global supply of short- and long-term funding has become highly relevant for future infrastructure development.<sup>33</sup> In light of these funding shortages, one goal of this report has been to look at how China, India and Brazil have financed infrastructure improvements and what financing alternatives exist for countries that aim to boost infrastructure investment. The key challenge for infrastructure development will be to develop clear financing and pricing policies.

It is not possible to finance infrastructure investment on the basis of traditional sources of public finance alone (Kingombe, 2011). Traditional sources of funding for infrastructure, multilateral and official lending institutions, can provide merely a small share of the total funding requirements, deficit funding will vanish as a feasible alternative and the private sector and innovative financing will become ever more central. Traditional sources of

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<sup>33</sup> For an outline of the current and emerging landscape of infrastructure financing, see Kingombe (2011).

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private capital such as banks have restricted credit growth and may be further constrained in light of new regulations such as Basel III, which will discourage banks from making long-term loans – traditionally used to finance major infrastructure projects – by demanding more capital be set aside to cover such loans (Teague, 2012). Against this background, institutional investors, such as pension funds and insurance companies, have been considered to help close the gap (OECD, 2011).

Prevailing large gaps in access to infrastructure services, especially in LICs, partly reflect inadequate levels of investment. According to World Bank statistics, LICs are estimated currently to spend about 3% to 3.5% of their GDP on maintenance of and investment in their infrastructure, while around 6.5% to 7.5% of GDP is required (Esterhuizen, 2012).<sup>34</sup> In Africa, China has become by far the most significant source of additional infrastructure financing, but there is still a major funding gap, especially in the region's LICs (Noman, 2011). Other emerging economies, including India and Brazil, are also increasing finance for infrastructure projects in Africa.

New development partners can offer lessons for LICs on how to close infrastructure gaps. The Chinese, for example, have been successful in planning coherent investment, continuously re-examining infrastructure gaps and orienting resources accordingly and making sure that infrastructure projects are linked, for instance by connecting new ports by also building roads and railways that lead to the port (Bredenkamp and Nord, 2010).

The country cases discussed in this report offer some lessons for how infrastructure can be financed using private sector resources. The experiences in China, India and Brazil are characterised by considerable heterogeneity, but a number of issues are relevant across them. More particularly, the country experiences reviewed above illustrate how overlapping challenges that impede private sector financing of infrastructure finance can be tackled.

### **6.1.1 Securing sufficient long-term financing for infrastructure investments**

Providing adequate long-term financing is essential for infrastructure investments (Walsh et al., 2011). In China and Brazil, bank loans have been helpful to secure such financing – through the development bank BNDES in Brazil and through various alternatives in China, including implicit local government guarantees and bond insurance provided by publicly owned banks.<sup>35</sup> To steer clear of maturity mismatches, banks usually cannot offer loans with tenors of more than five years – except if they receive longer-term funding, for example via long-term loans from development finance institutions (Bond et al., 2012). In India, for instance, banks have dominated infrastructure finance in recent years as well, but the Reserve Bank has worried about asset liability mismatches and concentration risks and has not permitted similarly high levels of concentration in infrastructure assets as Chinese banks have accepted (Rastogi and Rao, 2011). Moreover, the Indian government has not agreed to put up with the contingent fiscal liability that a development bank like BNDES might take on. Other countries, for example Chile and Korea, have been relatively successful in establishing local bond markets to support relatively long-term issuances by infrastructure companies (Walsh et al., 2011). In Chile, the creation of the pension system was key, which produced a market for local currency-denominated long-term securities, reducing the demand for bank finance (ibid.).

### **6.1.2 Motivating institutional investors to buy into long-term debt markets**

One promising solution is for infrastructure projects to be funded in capital markets. But encouraging institutional investors to buy into long-term debt markets is not easy in the absence of some form of credit enhancement (Walsh et al., 2011). Against this background,

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<sup>34</sup> According to Southern Africa Development Community PPP Network Head Kogan Pillay, the region needs \$500 billion between 2014 and 2027 for infrastructure development. See Esterhuizen (2012).

<sup>35</sup> In the future, a proposed BRICS bank is likely to play an important role in co-funding infrastructure in developing regions. See X. Wang (2013).

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donors have increasingly made use of official development assistance (ODA) to limit investment uncertainty by guaranteeing future returns, which permits donors to make investment projects more financially viable and mobilise funding from capital markets (ODI et al., 2013). For instance, special purpose bonds, which are backed by donor commitments to service and repay debt from ODA allocations earmarked for specific purposes, and blended finance mechanisms, which involve the complementary use of grants and non-grant sources such as loans or risk capital, are two ways to tap capital markets on the basis of ODA commitments (Girishankar, 2009; Wälde, 2012). For example, the fact that sovereign states back special purpose bonds makes such bonds appealing for institutional investors that can offer long-term finance for infrastructure development (Spratt and Collins, 2012). In India, domestic institutional investors offer great potential insofar as their investments are to date focused on government securities and insofar as the development of the Indian NPS promises considerable growth of assets under management of pension funds. Other countries, for example Chile, have managed to motivate institutional investors to buy bonds issued by fully private companies. Chilean pension funds are only permitted to invest in investment-grade securities, but private insurance companies have insured infrastructure bonds, enabling the pension funds to buy into these markets.

### **6.1.3 Mobilising foreign investment**

Foreign savings for infrastructure have been mobilised in a number of ways across different countries (Walsh et al., 2011). In several countries, multilateral lenders have played a significant role while it has been more difficult to motivate foreign private finance. In China, there tends to be little foreign participation in infrastructure so far. India has relied on multilateral lenders, but this source will probably not grow much in the medium term while infrastructure needs continue to be great; private financing is growing but securing more foreign private financing remains a challenge. Brazil, for example, has been open to foreign companies bidding on road projects, for which a pro-business environment and transparency in policy administration have been essential. Brazilian energy companies have issued shares and bonds in international markets, having had investment-grade ratings and having indirectly profited from sovereign guarantees. This could be a promising option for some larger corporates or public utilities in LICs, but the fiscal risks will have to be monitored and managed carefully. Brazil has also managed to motivate foreign companies to invest in PPPs.

Another option to support infrastructure development in LICs is to mobilise innovative financing that makes use of the large and increasing savings surpluses of some countries held in sovereign wealth funds (SWFs),<sup>36</sup> provide those resources to LICs on concessional terms and use them to promote private investments (Kingombe, 2011; Noman, 2011). Data from historical databases on SWF transactions suggest that SWFs can facilitate up to 50% of the investment needs in infrastructure in Africa over the next decade, benefiting from emerging economy investors and also African home-grown SWFs (Turkisch, 2011). ODA might be leveraged to mobilise SWF resources by providing a guarantee for borrowings from SWFs and using ODA to subsidise the interest payments for sovereign borrowing, and a Low-Income Country Infrastructure Fund (LICIF), administered by multilateral development banks, could be established to intermediate the transactions (Noman, 2011).

The focus of BRIC financing on infrastructure could have significant positive effects for trade performance by tackling infrastructure weaknesses in LICs (Mwase and Yang, 2012). Yet some worry about the impact on debt sustainability, subsidised export credits received by some BRIC firms and labour practices (e.g. Brautigam, 2010).

### **6.1.4 Supporting public–private partnerships**

Well-structured PPPs in trade-related infrastructure can help LIC governments raise the capital required to address shortcomings in that regard. In the Sub-Saharan region, Japan,

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<sup>36</sup> At the end of 2010, total SWF assets were around \$4,300 billion, and are projected to rise to some \$10,000 billion by 2015 (Noman, 2011).

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for example, has proved a promising partner in the recent past (Esterhuizen, 2012). While investor hesitation has gone down as a limitation to PPPs in many LICs, for example in Africa, policy deficiencies and poor institutional arrangements have arisen as the new major hurdles (ibid.). It is therefore important to support governments to increase the assurance that PPPs are a promising approach to tackle the infrastructure gap. At the same time, it is not enough to merely put into operation an enabling policy framework and institutional arrangements; these frameworks have to be backed up by sufficient political commitment (Kingombe, 2011).

### **6.1.5 Lessons and way forward**

This summary of results offers a number of lessons for LICs in terms of infrastructure development and financing:

#### **Establishing a favourable institutional environment for infrastructure development**

For example, the creation of an independent government body, comprising representatives from different ministries and affiliated agencies who report directly to and are held to account by the head of state, can help administer infrastructure spending programmes and reduce operational challenges (Wirjawan, 2010). As mentioned above, a new Development Bank for Infrastructure and Sustainable Development could offer an additional source of funding for infrastructure in LICs (Bhattacharya et al., 2012).

#### **Looking for domestic institutional investors**

The main substitute for banks financing infrastructure, for example if governments are not prepared to agree to enough contingent fiscal liability, is to search for domestic institutional investors.

In this context, a promising source of long-term financing for infrastructure are pre-funded pension plans (Croce, 2011; OECD, 2011). Pension funds in developing countries increased from around \$422 billion in 2001 to \$1.4 trillion in 2010 (J.P. Morgan, 2010). Given the rather young population of most developing countries and the recent introduction of pension plans, the assets held by pension funds are growing very quickly in many countries, and since payments from these funds take place over a long term and are highly predictable, they are a suitable source of funding for infrastructure that can provide stable long-term returns (Bond et al., 2012).

In order to attract pension fund investment in infrastructure, a number of hurdles need to be addressed (Croce, 2011). In many countries, pension funds do not have sufficient skills to invest in infrastructure projects and governments often restrict the ability of pension funds to invest in infrastructure projects directly (Bond et al., 2012). Motivating institutional investors to move into infrastructure would require regulatory changes, for example by permitting large insurance companies and pension funds to diversify into bonds issued by private insurance companies. In this regard, a significant worry would be the credit risk of infrastructure bonds. Risk-seeking domestic investors might supply capital for bond insurance, especially if bankruptcy proceedings are enhanced to enable better recovery from infrastructure projects.

A recent report by the African Development Bank encourages sponsors of infrastructure projects in Africa to turn to domestic institutional investors by issuing infrastructure project bonds (Mezui and Hundal, 2013).<sup>37</sup> At the same time, the report underlines that a successful launch of such bonds requires African countries to enhance their regulatory frameworks. So far, infrastructure bonds have hardly been in use in Africa (Mu et al., 2013). But the Government of Kenya has been pioneering them but other African countries like Cape Verde and Ghana have also expressed interest in issuing such bonds.

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<sup>37</sup> See also Mbeng Mezui (2012).

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### Looking for foreign investment

In addition to these approaches, LICs could seek foreign investment.<sup>38</sup> For example, the excess savings in the global economy, including a growing pool of savings in developing and emerging countries, should be used for infrastructure development by turning them into stable, predictable and scaled finance while providing investors with a safe high quality asset (Bhattacharya et al., 2012). To support this search for foreign investors, the public sector could provide credit guarantees, either directly through loan guarantees or indirectly through regulatory forbearance at public sector banks.

The process of the public sector issuing credit guarantees raises fiscal risks, which should be managed well. For example, Chile has introduced a refined technique for approximating contingent fiscal liabilities owing to infrastructure investment (Walsh et al., 2011). Developing a comparable approach in LICs would offer enhanced information about contingent fiscal liabilities and shed light on these long-term risks, enabling their better management.

### Supporting PPPs and private participation in infrastructure

Private participation in infrastructure has been low in LICs so far; in order to enhance this approach, a number of success factors should be taken into account (Kingombe, 2011; Leigland, 2010): First, the focus should be on project opportunities with a great probability of success, leaving the rest for funding by government budgets or ODA, which donors and international financial institutions can support by avoiding the preemption of potentially bankable projects by ODA (Leigland, 2010). Second, a strong business climate – and leadership in easing restrictions on doing business – is critical to the success of private participation in infrastructure projects because it helps facilitate affordable project finance. For example, India's investment-grade credit rating, achieved while the country was still classified as low-income, has played a big part in its success in terms of private participation in infrastructure. Last but not least, private participation in infrastructure projects in LICs commonly requires extensive upstream preparation – involving sector, policy and legal and regulatory reforms (ibid.). Moreover, one lesson for LICs to consider might be to begin with lighter forms of PPPs, such as operations and management (O&M) contracts that are easier to enact, carry lower risks and are more likely to be successful, and then, as the environment for and understanding of PPPs improves, to shift towards more complex forms of partnerships with the BOT approach (Luthra, 2012). Guidebooks and toolkits on PPPs can offer additional help (e.g. Thomsen, 2005; UNESCAP, 2011).

## 6.2 Lessons for trade facilitation

There are two key policy measures to reduce trade transaction costs: the enhancement of trade-related infrastructure, as discussed above, and trade facilitation, above all the rationalisation of trade procedures (ARTNeT and UNNExT, 2012). While the former typically demands huge amounts of capital, which tends to be scarce in LICs, the latter can be implemented swiftly once the political will is present. Furthermore, reforming trade procedures enable making better use of existing trade-related infrastructure in LICs. For example, it can allow customs clearance checkpoints to handle more transactions as traded goods move faster through the facilities. The modernisation of trade procedures can therefore be regarded as key to improving trade performance in LICs. Faster, predictable and transparent customs clearance greatly helps traders lower costs and enhance their supply chain management (IFC, 2006).

### 6.2.1 The political economy of trade facilitation

At the same time, the so-called 'soft trade facilitation' is frequently highly difficult to put into practice, since it often goes against strong vested interest and is implemented without the 'ribbon-cutting ceremonies' that make it attractive for politicians and donors (Rippel,

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<sup>38</sup> With regard to FDI, the case of China might offer some lessons. See Tseng and Zebregs (2002).

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2011). One key question is thus how such political economy challenges might be overcome in order to promote trade facilitation and other relevant reforms (Lui and Siziba, 2012). In this context, it is essential to first identify the most relevant actors as well as their motivations and interests. As a second step, it is important to analyse governance relations at the sector level to evaluate the feasibility of reforms and identify what drives or hinders reform as well as the wider context within which reform is supposed to happen. These analyses may lead to a change in focus, for example by moving from an exclusive focus on regional or multilateral trade facilitation protocols to concentrating on the demand side for policy actions from interest groups or 'showcase' projects that might reduce the opposition to reforms (ibid.).

### **6.2.2 Applying ICT and other modern technology, paperless trade procedures and single window facilities**

Results of recent non-tariff policy-related trade costs modelling exercises underline that enhancing access to information and communication technology (ICT) facilities is essential to reducing trade costs (Duval and Utoktham, 2011). China, India and Brazil have successfully applied ICT and focused on paperless trade and single window facilities for submission and processing of information and documents. The implementation of EDI and single window systems enables simplifying documentary requirements and limiting the complexity of documents submission. A single window, for instance, enables data and documentation relating to export or import processes and transit-related regulatory requirements to be submitted just once to a single point, often through one electronic portal, allowing each agency involved to access the information it requires from this single repository in accordance with agreed inter-agency protocols (Tsen, 2011).

#### **Box 2: The Chirundu one-stop border post**

The Chirundu one-stop border post between Zambia and Zimbabwe was officially inaugurated in December 2009. The objective was to tackle the challenges of one of the busiest border crossings in the region, where transporters experienced considerable delays owing to clearance of consolidated loads and procedures by the revenue authorities at the border (Curtis, 2009). The establishment of the one-stop border post has led to significant improvements and can be regarded as a success. For example, passengers and commercial traffic stop only once to complete border formalities for both countries, and waiting times for commercial traffic have been reduced from about two to three days to just two hours. In order for comparable initiatives to be established, sufficient political will and adequate budgets are needed.

*Source: Kwaranda (2010)*

### **6.2.3 One-stop border posts and trade corridors**

Notwithstanding the verifiable benefits that they generate, only a single one-stop border post (see Box 2) has been implemented in all of Africa (Lui and Siziba, 2012). One-stop border posts, jointly managed by neighbouring countries, reduce duplication of procedures, allow for greater efficiency and improve transit times, and are often connected to other initiatives such as trade corridors and efforts towards more integrated and coordinated border management (Barka, 2012).<sup>39</sup>

Trade corridors have been at the centre of considerable discussion over the past years, above all across in Africa. The ability to transit goods and people easily along a well-structured trade corridor, with no delays or hindrances such as borders or any other barrier

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<sup>39</sup> There is considerable potential for one-stop border posts in Africa (see Barka, 2012). In Africa, the UK Department for International Development and the Japan International Cooperation Agency have been working with the East African Community (EAC), the Southern African Development Community (SADC) and the Common Market for East and Southern Africa (COMESA) to establish the one-stop border posts in the context of the North–South transit corridor. In South-East Asia, the Greater Mekong Subregion's Cross-Border Transit Agreement entails implementation of single-stop inspection and single window inspection points.

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to trade, is a demanding vision that will need a concerted effort and support from every level of the governments within the recognised economic regions.

#### **6.2.4 Risk management techniques**

Inspection frequently adds substantially to the time needed for export and import processes and affects their timeliness and predictability, which in turn are highly important for firms that aim at being part of international production networks (ARTNeT and UNNEExT, 2012). In accordance with key international agreements concerning modernisation of customs controls, such as the Revised Kyoto Convention and the WCO SAFE Framework of Standards, many customs agencies are now procuring and employing cargo and baggage scanners that utilise both x-ray and gamma ray sources to augment the control of passengers' baggage and cargoes. Referred to under the generic name of 'non-intrusive inspection', such equipment, if utilised correctly, can offer an efficient means of detecting high-risk cargo at the point of import or export without the need to undertake what are often lengthy and costly resource-intensive physical inspections. The Chinese, Indian and Brazilian experiences illustrate the benefits of implementing risk management techniques in order to reduce the need for inspections.

At the same time, scanning equipment is costly and may, for example, not make adequate sense in low-volume ports, as the case of extraordinarily high scanning charges in Maputo, Mozambique, illustrates (Bolnick, 2007). However, some of the resulting costs might be transferable to other agencies or stakeholders and the cost of procurement and maintenance of IT systems and x-ray scanners may be financed through processing fees (IFC, 2006).

#### **6.2.5 Harmonisation and simplification of required documents**

The most substantial part of the time needed for an import or export process is taken up by the preparation of the required documents and exchange of information among the relevant different parties (ARTNeT and UNNEExT, 2012). For LICs, the trade facilitation measure that yields the greatest increases in trade flows is the harmonisation and simplification of documents (OECD, 2012). This entails both the extent of harmonisation of trade documents, through reliance on international standards and simplification of documentary requirements, through the use of copies and the reduction of the number and complexity of required documentation. For instance, exports to different destinations frequently require different types of documentation, which – more than mere number of documents – causes delays. Differences in documentary requirements should be cut back by aligning national procedures with international standards and conventions. For instance, to prepare for accession to WTO, China Customs amended its Customs Law, which was based on international standards and best practices and incorporated, for instance, the key principles and standards of the Revised Kyoto Convention.

#### **6.2.6 Industry- and sector-specific trade facilitation**

The duration of the trade process varies and is strongly conditional on the kinds of goods being traded, as product-specific case studies underline. The trade procedure is especially complex for agricultural goods and food products, which are of high relevance in many LICs, and usually involve complex sampling and testing procedures, which make up almost half of the total export time in some cases (ARTNeT and UNNEExT, 2012). Another important case for LICs relates to low-valued exports. As mentioned above, Brazil has had positive experiences with special trade facilitation policies for low-valued exports policies, which seek to tackle complex and expensive export formalities and the absence of affordable delivery means.

#### **6.2.7 Trade facilitation preferential free trade agreements**

Preferential trade agreements – be they bilateral or regional in nature – usually lead to added documentary requirements for the trading partners with which they are negotiated. Recent research found evidence of considerable holdups in the context of the need for such

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additional requirements. China and India have indeed taken account of trade facilitation provisions being included in preferential trade agreements.

The EAC, COMESA and SADC, for example, also acknowledge the importance of improving trade facilitation in the context of deepening regional integration and have established a Comprehensive Trade and Transport Facilitation Programme (CTTTFP), the Tripartite Free Trade Area (Lui and Siziba, 2012).

### **6.2.8 Lessons and way forward**

Rationalising trade procedures need of course not necessarily be alike across countries, insofar as specific needs and capacities of the different implementing countries should be taken account of, above all in the context of LICs. At the same time, there are a number of trade facilitation reforms that recent research considers to be particularly beneficial.<sup>40</sup>

#### **Taking account of political economy challenges for trade facilitation**

From a political economy perspective, some of the steps going forward include assessing the major barriers to ‘unlocking’ reform in trade facilitation in LICs. The question is, for example, to what extent these hurdles owe to a lack of technical capacity, institutional challenges, coordination failures or a lack of political will, and how incentives can be modified to facilitate reform (Lui and Siziba, 2012). Making progress also necessitates assessing who are the main drivers of trade facilitation, who is opposed to reform and why and what role, if any, external partners can play in driving trade facilitation forward (ibid.).

#### **Prioritising paperless trade, with a focus on EDI and national and regional single window facilities**

In most LICs, IT systems capable of electronic data exchange are in the process of implementation or already functional, but only few LICs offer full-time automated processing for customs agencies (OECD, 2012). Many developing countries indicate that a single window is planned but many LICs have not yet implanted them, and this emphasises the importance of efforts undertaken in this area (ibid.). Following the example of China, India and Brazil, it is thus essential to promote EDI and single window facilities for submission and processing of information and documents and to boost the use of ICT and the realisation of paperless trade. The UN Network of Experts for Paperless Trade in Asia and the Pacific (UNNeXT) offers guides and toolkits and an online database of trade facilitation and paperless trade experts, facilitating access to relevant expertise to enhance paperless trade implementation, for instance by implementing single window facilities (UNESCAP and UNECE, 2012).

#### **Supporting the harmonisation of documentary requirements across countries**

LICs score much lower in comparison with other country groups in terms of progress regarding the number of documents necessary for exporting and importing, as well as the time required on average for the preparation of such documents, underlining this area as a priority target in future policy interventions and technical assistance and capacity building endeavours (OECD, 2012). Moreover, compliance with international standards is relatively low (ibid.). There should therefore be efforts to make trade facilitation practitioners in LICs more aware of existing international standards and increase capacities to implement them.<sup>41</sup> LICs should also be involved in the establishment of new international standards.

#### **Minimising physical inspections, in particular through adoption of risk management techniques**

Few LICs have automated risk management implemented so far (OECD, 2012). In light of the Chinese, Indian and Brazilian experiences, LICs should consider introducing risk

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<sup>40</sup> For an outline of the World Bank portfolio on trade logistic and trade facilitation support, see World Bank (2011a).

<sup>41</sup> De Wulf and Sokol (2005) have put forward proposals on crosscutting issues of customs modernisation. In 2007, the European Commission (EC, 2007) also laid down clear criteria on a modern customs administration, which were described in its Customs Blueprints.

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management techniques in order to reduce the need for inspections. The focus should be on non-intrusive technologies, such as x-ray scanning, to facilitate the cargo inspection process (IFC, 2006). Establishing certification initiatives, which guarantee certain characteristics of goods through control of the production process instead of each delivery, could also help bring down the frequency of inspections (ARTNeT and UNNEXT, 2012).

### **Considering industry- and sector-specific trade facilitation initiatives, such as for agricultural products or low-valued exports**

Sector-specific delays, for instance in the context of agricultural goods and food products, are often attributable to restricted accessibility of needed testing facilities in the exporting country – and this in turn is a frequent problem in LICs. Industry- or sector-specific challenges should thus be tackled through industry- or sector-specific initiatives, which may also have to take account of providing the testing facilities that are required for a smooth export process. In addition, trade facilitation policies for low-valued exports policies offer potential for many LICs, inspired by their introduction in countries like Brazil and the lessons learnt from these experiences.

### **Including trade facilitation issues in bilateral and regional free trade agreements**

In order to speed up the process of fulfilling the additional requirements in preferential trade agreements, trade facilitation provisions should be included in such agreements, be they bilateral or regional in nature. One-stop border posts and trade corridors should also be tried in the context of regional integration.

In sum, these trade facilitation approaches offer the potential to improve a country's trade performance. At the same time, trade facilitation by itself is not likely to generate substantial progress in LICs. Improvements in trade performance call for an integrated programme of strategic investments for tackling the supply-side constraints to a country's potential to make use of improved trading conditions. For example, recent research shows that trade facilitation reforms could support trade performance in Africa, but other reforms, including on the quality of the regulatory environment and of the basic transport and communications infrastructure, as discussed above, are required as well (Iwanow and Kirkpatrick, 2009). At the same time, the research indicates that enhancement of on-the-border and behind-the-border policies leads to a higher increase in manufacturing exports in African countries than in the rest of the world.

## **6.3 Lessons for state–business relations**

Formalised state–business relations can facilitate economic performance, for example, on the basis of better allocative efficiency of government spending and better growth and industrial policies, but they should be disciplined by competition policies in order to prevent them from becoming collusive rather than collaborative. The case of India illustrates that a destructive collusive relationship can be changed into a more collaborative one when leaders and elites manage to establish developmental coalitions (Aivelu et al., 2009). More specific policy recommendations are as follows.

### **6.3.1 Building capacity for state–business relations and safeguarding buy-in from all actors**

Capacity building and safeguarding buy-in from all actors regarding state–business relations necessitate a strong state that is highly committed, above all in the presence of opposing policy views by various parts of government (te Velde, 2010c).

### **6.3.2 Addressing vested interests that resist reform**

Tackling vested interests requires coordination among other interest groups that can benefit from reform, including consumers, who may gain from lower prices and who can be mobilised through consumer groups, and prospective new market entrants, who can have a say through business associations (Ellis and Singh, 2010). Competition authorities can be important for facilitating the coordination of such groups, underlining the costs of restricted

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competition and generating evidence on the benefits of reform. External actors, including donors, can assist in the development of constituencies for reform by also providing evidence on the benefits of reform and supporting the creation of effective competition authorities (ibid.).

### 6.3.3 Creating an effective framework for competition

Creating a sound framework for competition is not easy in light of vested interests, but essential to making markets work efficiently to generate growth and development, especially when large multinationals with extensive market power are entering small LICs, and might restrain domestic business (Ellis and Singh, 2010).

### 6.3.4 Promoting effective special economic zones

Effective state-business relations in SEZs can contribute to growth and a successful trade performance. Emerging economies' experiences with SEZs and industrial clusters have often been very successful up to date, especially in China.<sup>42</sup> SEZs can be most valuable in catalysing processes of economic reform, especially in light of the fact it is more often than not political factors that distort economic structures and undermine economic dynamism (Farole, 2011a; 2011b). This is what happened in the classic case of China's SEZs, which provided an instrument to experiment with liberal economic reforms before gradually implementing them in the wider economy. But China aside, do these zones work? What have we learned from the experiences of developing countries over recent decades?

While the first modern SEZs were founded more than five decades ago, recently they have become highly popular (Farole, 2011b). According to the International Labour Organization database of SEZs, there were 176 zones in 47 countries in 1986; by 2006, this number had increased to 3,500 zones in 130 countries (Boyenge, 2007).

Recent research indicates that the success of SEZs is strongly associated with the reliability of infrastructure and that incentives tend not to have a strong impact on the success rate (Farole, 2011a). The successful and unsuccessful cases to date underline a number of lessons for the development of SEZs (Farole, 2011b).

- It is essential to distinguish political commitment from political objectives. While clear commitment from government is required, zone projects should be planned cautiously on the basis of a commercial case rather than broader political objectives.
- The success of SEZs is closely linked to the competitiveness of the broader national economic environment. When SEZs are established in an environment of poor national competitiveness and weak infrastructure, it is difficult to connect them to global markets.
- It is crucial both to establish a clear and transparent legal and regulatory framework and an adequate programme for SEZs, and to ensure that these can *de facto* be implemented, especially since the relevant authority frequently does not have adequate resources or capacities to accomplish its mandate.

One major discrepancy between zones that have been successful and those that have not is the extent to which they have been integrated in the broader national economic policy framework (Farole, 2011a; 2011b). To be a success in the longer run, SEZs should contribute to structural transformation of the economy, including diversification and economic upgrading. In successful cases, the countries have provided the conditions for ongoing exchange between the domestic economy and investors based on the zones, for instance on the basis of investment by domestic firms into the zones, forward and backward linkages, business support and the movement of skilled labour and entrepreneurs between the zones and the domestic economy (ibid.).

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<sup>42</sup> For a recent empirical analysis, see Leong (2012).

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In sum, using SEZs as successful instruments thus requires considerably broader policies than the limited range of any zone programme by itself (Farole, 2011a; 2011b), such as supporting skills development, training and knowledge sharing; facilitating industry clusters; promoting the integration of regional value chains; and assisting public–private institutions, both industry-specific and transversal.

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